

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Facility
(Stone-Clay, Ceramics, Refractory Minerals)

Fatal Machinery Accident
November 16, 2019

Caney Creek Limestone, LLC. (C0242)

at

US Silica Company
EP Engineered Clays Corporation
Jackson, Mississippi
ID No. 22-00415

Accident Investigator

Gregory Sensibaugh
Mine Safety and Health Inspector

Originating Office

Mine Safety and Health Administration
South Central District
1100 Commerce Street RM 462
Dallas, TX 75242
William D. O'Dell, District Manager

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OVERVIEW

Johnnie E. Twiner, owner of Caney Creek Limestone, LLC, with 50 years total work experience, died on November 16, 2019 after a bulldozer struck him. While spotting for a haul truck, the victim stepped backwards into the path of the bulldozer that was backing up.

GENERAL INFORMATION

US Silica Company owns and operates EP Engineered Clays Corporation (EP) in Jackson, Mississippi. EP operates varying shifts five days a week and employs 79 miners. EP manufactures activated clay absorbents, catalysts, and un-activated animal feed additives from bentonite clay. Other mines provide the bentonite clay to this facility. The United Steelworkers International Union represents the miners at this mine.

The Mine Safety and Health Administration (MSHA) completed the last regular inspection at this operation on August 22, 2019. The non-fatal days lost (NFDL) incident rate for EP Engineered Clays Corporation for 2018 was 0.00, compared to the national average of 1.46.

The principal officers for this mine at the time of the accident were:

Bryan A. Shinn..... President and Chief Executive Officer
Michael L. Winkler..... Executive Vice President and Chief Operating Officer
Donald A. Merrill..... Executive Vice President and Chief Financial Officer
W. Andrew Macan..... Senior Vice President and General Counsel

DESCRIPTION OF ACCIDENT

EP contracted Caney Creek Limestone, LLC (Caney Creek) to repair a slide on the south end of the #5 impoundment, located approximately one and a half miles from the main plant. This repair project began on November 5, 2019. Caney Creek arranged for various haul truck subcontractors, which include Granderson Construction, to deliver clay for the #5 impoundment repair. The haul trucks would dump their loads of clay on the #5 impoundment as directed by a Caney Creek bulldozer operator. The bulldozer operator would then push the material down an approximate 18% slope in lifts. A Caney Creek compactor operator would then compact the clay lifts.

At 6:30 a.m., on Saturday, November 16, 2019, Johnnie E. Twiner, Owner of Caney Creek, arrived at the site and conducted an examination of the area and mobile equipment. Lamar Twiner, Equipment Operator and Johnnie's brother, arrived at 7:00 a.m. and Deshawn Rogers, Equipment Operator, arrived at 7:30 a.m. The subcontractor's haul trucks also began to arrive at the job site at this time. Neither the contractor nor the subcontractors checked in at the main plant guard shack. Mine management was unaware that the repair to the #5 impoundment was occurring that day.

At 11:00 a.m., Johnnie E. Twiner told Lamar Twiner of his plans to leave to pick up something for their lunch.

At 12:15 p.m., Johnnie returned to the site. Johnnie parked at the top of the grade and finished a phone conversation. Lamar Twiner observed Johnnie's truck at the top of the grade and assumed that Johnnie had not left his truck so he began backing up the impoundment slope. Deshawn was

approximately 135 feet down the slope operating a compactor. Deshawn saw Johnnie get out of his truck, set the lunches on the tool box of his truck, don his safety vest and walk toward the haul truck. Joseph Winters, Haul Truck Driver, for subcontractor Granderson Construction, stated that Johnnie approached his haul truck to spot for him at the dump location. As Winters was raising the bed of the haul truck, he observed Johnnie from his driver's-side, side-view mirror step back from his haul truck. Deshawn, knowing that Johnnie was on foot and that Lamar Twiner was backing up the slope in Johnnie's direction, exited the compactor and began to run up the slope to get Lamar Twiner's attention to stop. At approximately 12:22 p.m., Johnnie stepped directly into the path of the bulldozer and was struck and run over. At 12:23 p.m., Deshawn called 911 and reported the accident. At 12:28 p.m., the Jackson Police Department arrived onsite and they contacted the county coroner. At 1:25 p.m., Jeremiah Howard, Hinds County Coroner, arrived onsite and pronounced the victim dead at the scene.

At 4:09 p.m., Tim Broomfield, EP's Production Supervisor and Michael Lard, EP's Leem Operator, encountered an OSHA inspector looking for the accident scene and OSHA informed them of the fatality. Broomfield then notified US Silica Company management of the accident.

INVESTIGATION OF ACCIDENT

At 4:15 p.m. on November 16, 2019, Geoff Johnson, Environmental, Health & Safety Manager, US Silica Company, contacted the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Robert Dreyer, Mine Safety and Health Specialist. William D. O'Dell, District Manager, dispatched Brandon Olivier, Mine Safety and Health Inspector, to the mine site. Olivier arrived at 10:45 p.m., and issued an order under section 103(k) of the Mine Act to secure the scene and ensure the safety of miners. On November 17, 2019, Gregory Sensibaugh, Mine Safety and Health Inspector, arrived at the mine site to conduct the fatal accident investigation.

MSHA's accident investigation team conducted a physical examination of the accident scene, interviewed miners and reviewed conditions to the accident. MSHA conducted the investigation with the assistance of mine management, miners, miners' representatives and contractors. See Appendix A for a list of persons participating in the investigation and those interviewed.

DISCUSSION

Location of Accident

The accident occurred on the South Slope of the #5 Impoundment. See Appendix B for a diagram with the approximate location of the equipment involved in the accident.

Weather

The weather at the time of the accident was partly cloudy, with temperatures in the mid 50's. Investigators did not consider the weather to be a factor in the accident.

Equipment Involved in the Accident

The bulldozer involved in the accident was a 2018 CASE 1650M, Serial No. NFDC16064, with 517 hours of operation. An International 3800, Serial No. T444E with a normal payload of 12.5 tons was the haul truck dumping at the time of the accident. Investigators did not find

mechanical deficiencies or safety defects that would have caused the accident. Investigators determined that the slope of the impoundment limited the bulldozer operator's vision out the back window while backing up the slope. This would have attributed to the bulldozer operator's inability to see the victim.

Training and Experience

Johnnie E. Twiner had approximately 50 years of total mine experience. He intermittently performed contract work for this mine for over 25 years. The investigation found that none of Caney Creek employees had received new miner training. On the day of the accident, Lamar Twiner and Johnnie E. Twiner were the only ones that received site-specific hazard awareness training.

ROOT CAUSE ANALYSIS

The accident investigation team conducted a root cause analysis to identify the underlying cause of the accident. The team identified the following root cause, and the contractor implemented the corresponding corrective actions to prevent a recurrence.

Root Cause: The victim approached a high traffic area without ensuring all of the equipment operators were aware of his close proximity and his intentions for approaching the equipment.

Corrective Action: The contractor provided training to all contractor employees on notifying equipment operators before approaching equipment.

CONCLUSION

Johnnie E. Twiner, died on November 16, 2019, after a bulldozer struck him. While spotting for a haul truck, the victim stepped backwards into the path of the bulldozer as it was backing up.

Approved: _____ *Date:* _____

William D. O'Dell
South Central District Manager

ENFORCEMENT ACTIONS

A 103(k) Order No. 9513018 was issued on November 16, 2019,

An accident occurred at this location on November 16, 2019 at approximately 12:22 p.m. The order was to ensure the safety of all persons at the operation and also to prevent further destruction of any evidence pertinent to the investigation. It prohibits all activities at the East access road down the dredge lake/pond until MSHA has determined that it is safe to resume normal mining operations in the area. The mine operator shall obtain prior approval from an authorized representative for all actions to recover and/or restore operations to the affected area.

Appendix A
Persons Participating in the Investigation
(Persons interviewed are indicated by a * next to their name)

EP Engineered Clays Corporation

Byron Myers* Site Manager
Chris Champagne* Maintenance & Engineering Manager
Geoff Johnson* EH & S Manager
Tim Broomfield* Production Supervisor
Michael Lard* Leem Operator

Caney Creek Limestone LLC.

Lamar Twiner* Equipment Operator
Deshawn Rogers* Equipment Operator

Granderson Construction

Joseph Winters* Haul Truck Driver

United Steelworkers International Union

Chris Adcock Union President/Miners Representative
Paul Craft Union Representative/Miners Representative

Mine Safety and Health Administration

Brandon Olivier Mine Safety and Health Inspector
Gregory Sensibaugh Mine Safety and Health Inspector
Jeffrey Deval Mine Safety and Health Educational Field Services

Appendix B
Map of the Accident Site
(Approximate location of the equipment involved in the accident)

