FAI-6886137-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Construction Sand and Gravel)

Fatal Powered Haulage Accident
April 19, 2021

Mobile Crusher #3
Frontera Materials Inc
La Joya, Hidalgo County, Texas
MSHA ID No. 41-04292

Accident Investigators

Ramiro Jimenez
Supervisory Mine Safety and Health Inspector

Emilio Perales
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Dallas District
1100 Commerce St., Room 462
Dallas, TX 75242
William O'Dell, District Manger

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OVERVIEW

On April 19, 2021, David Garcia Jr., a 28 year-old haul truck operator with approximately ten months of experience, died when his haul truck, parked on a grade, rolled, pinning him against his personal pickup truck.

The fatality occurred because the mine operator: 1) did not assure that miners followed proper parking procedures for unattended mobile equipment, including applying the parking brake or using chocks when parked on a grade, and did not provide chocks to mobile equipment operators for use when parking on a grade; and 2) did not provide task training to Garcia Jr. to operate the John Deere 250D.

GENERAL INFORMATION

Frontera Materials Inc owns and operates the Mobile Crusher #3 mine. The mine is a surface sand and gravel mine located in La Joya, Hidalgo County, Texas. The mine employs 27 miners and operates one shift per day, five to six days per week. The mine uses bulldozers to push material from a single bench into the pit and load the material out with front-end loaders. Haul trucks transport the material to various areas of the plant for stockpiling. Front end loaders then transfer and dump material into various hoppers for crushing, sizing, and screening. The mine operator sells the finished product to the construction industry.

The principal officers for the Mobile Crusher #3 mine at the time of the accident were:

Eddie E. Forshage III	President
Joseph E. Forshage	Secretary/Treasurer

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on April 1, 2021. The 2020 non-fatal days lost incident rate for Mobile Crusher #3 was zero, compared to the national average of 1.01 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On April 19, 2021, at 7:00 a.m., David Garcia Jr., arrived at the mine for his shift. Sergio Garcia, Supervisor, instructed Garcia Jr. to haul waste material and dump it in an old portion of the pit. At 10:30 a.m., Javier Martinez, Foreman, observed Garcia Jr. driving a haul truck towards the Reavis Pit, which has a parking area used by a few employees to park their personal vehicles, as well as mine mobile equipment. At 10:35 a.m., Sixto Olivera, Loader Operator, was dropping his brother off by his vehicle, which was parked in the same area, and he observed Garcia Jr. driving the haul truck into the parking area. Olivera left the area to return to work.

At 11:45 a.m., Olivera went back to the parking area to eat lunch when he observed Garcia Jr. pinned between the left front bumper of the haul truck he had been operating and the driver's side door of Garcia Jr.'s personal pickup truck. The haul truck was still running. Olivera immediately called Martinez and Sergio Garcia. Sergio Garcia arrived at the accident scene and called Stephen Forshage, Vice President.

Sergio Garcia got into Garcia Jr.'s haul truck, which was still running. The parking brake was not engaged. He backed the haul truck up to free Garcia Jr. Sergio Garcia then proceeded to perform cardiopulmonary resuscitation until Emergency Medical Services arrived at the accident scene at 12:13 p.m. and determined that Garcia Jr. had died. Juan Pena, Justice of the Peace, arrived from Mission, Texas and officially pronounced Garcia Jr. dead at 1:38 p.m.

INVESTIGATION OF THE ACCIDENT

On April 19, 2021, at 1:21 p.m., Eddie E. Forshage III, President, called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted William O'Dell, District Manager. O'Dell contacted Brett Barrick, Assistant District Manager, who sent Ramiro Jimenez, Supervisory Mine Safety and Health Inspector, and Emilio Perales, Mine Safety and Health Inspector, to the mine. Perales arrived at 7:30 p.m. and 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. Perales secured the accident scene and gathered witness statements in preparation for the arrival of Jimenez, who was the accident investigation team leader. Jimenez was unable to arrive at the mine until April 21, 2021, because he traveled from the Albuquerque, New Mexico field office. Barrick chose Jimenez as the accident investigation team leader due to his experience and Spanish-speaking ability.

On April 21, 2021, at 8:40 a.m., Jimenez and Perales arrived at the mine to conduct the investigation. MSHA's accident investigation team conducted an examination of the accident scene, interviewed miners, and reviewed conditions and work procedures relevant to the accident. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident and Chock Use

The accident occurred in the Reavis Pit parking area. In the Reavis Pit parking area, the ground is hard packed and uneven, with grades varying from two to eight percent.

Based on interviews and checking mobile equipment, investigators determined that Garcia Jr. did not have chocks on the haul truck to block the tires from motion while it was left unattended on a two percent grade. Investigators also determined that the mine operator did not provide chocks for any of their mobile equipment, and that the mine operator instructed the mobile equipment operators to find a flat place to park even though there were various grades in the Reavis Pit. Additionally, the mine operator did not establish parking procedures and did not conduct examinations of parking areas to determine compliance with MSHA standards related to parking mobile equipment.

Investigators found uneaten portions of Garcia Jr.'s lunch on the hood of his pickup truck. Based on the examination of the accident scene and information obtained during interviews, investigators determined that Garcia Jr. stopped his haul truck on the two percent grade in the parking area and exited his haul truck to get his lunch from his personal pickup truck and eat. Martinez observed Garcia Jr. at 10:30 a.m. and Olivera observed Garcia Jr. at 10:35 a.m. However, there were no witnesses in the parking area from 10:35 a.m. to 11:45 a.m.

Equipment Involved in the Accident

Garcia Jr. was operating a John Deere 250D haul truck. Investigators conducted an inspection of the haul truck and found no defects that contributed to the accident.

Weather

The weather at the time of the accident was mostly clear, with a temperature of approximately 70 degrees Fahrenheit. Investigators determined that weather was not a factor in the accident.

Examinations

The mine operator could not provide records of pre-operational examinations for the John Deere 250D haul truck.

Training and Experience

Garcia Jr. had approximately ten months of mining experience, all operating a John Deere 410E haul truck and a CAT 623 Water Wagon at this mine. Garcia Jr. had operated the John Deere 250D haul truck for 22 days prior to the accident. Garcia Jr. did not receive task training for the John Deere 250D haul truck as required by MSHA Part 46 training regulations. Proper task training would have included setting the parking brake which can be set by activating a switch on the dashboard or turning off the engine.

The John Deere 250D has a different control system than the John Deere 410E. Based on interviews, investigators learned that the mine operator provided training by giving basic instruction on the operating controls on all haul trucks and then directing drivers to drive their trucks for a day. Afterward, the mine operator would certify drivers as trained. The mine operator did not have any haul trucks that have a seat for ride along training. The mine operator stated to investigators that they made the decision not to train the victim on the truck's control system because the truck, in their opinion, was "nearly similar" to the John Deere 410E. From a review of the haul truck's controls, investigators determined that the switches to set the parking brakes on both the 250D and 410E are located on the right sides of the drivers' dashboards. When the parking brake is set on the 250D, there is a flashing light. When the parking brake is set on the 410E, there is an audible and visible alarm.

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 assure that miners followed proper parking procedures for unattended mobile equipment, including applying the parking brake or using chocks when parked on a grade, and did not provide chocks to mobile equipment operators for use when parking on a grade.

   Corrective Action: The mine operator provided a set of chocks for every piece of mobile equipment and trained all miners on proper parking procedures for unattended mobile equipment. Additionally, the mine operator created designated parking areas for personal vehicles separate from mine mobile equipment.

2. Root Cause: The mine operator did not provide task training to Garcia Jr. to operate the John Deere 250D.

   Corrective Action: The mine operator conducted task training for mobile equipment with all of their miners.

CONCLUSION

On April 19, 2021, David Garcia Jr., a 28 year-old haul truck operator with approximately ten months of experience, died when his haul truck, parked on a grade, rolled, pinning him against his personal pickup truck.

The fatality occurred because the mine operator: 1) did not assure that miners followed proper parking procedures for unattended mobile equipment, including applying the parking brake or using chocks when parked on a grade, and did not provide chocks to mobile equipment operators for use when parking on a grade; and 2) did not provide task training to Garcia Jr. to operate the John Deere 250D.

Approved by:

_____ _____

William O'Dell Date
Dallas District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Frontera Materials Inc.

   A fatal accident occurred on April 19, 2021. 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(d)(1) citation was issued to Frontera Materials Inc for a violation of 30 CFR 56.14207.

   A fatal accident occurred at this mine site on April 19, 2021, when the operator of the John Deere 250D haul truck did not set the parking brake or chock the wheels when he left the haul truck running unattended on a grade. The haul truck operator stopped in the area to get his lunch from his personal pickup truck. While eating his lunch next to the driver's side door of his pickup truck, the haul truck rolled forward pinning him between the bumper of the haul truck and his personal pickup truck, resulting in fatal injuries. The mine operator: (1) did not provide chocks for mobile equipment, (2) told drivers to park in flat places even though the Reavis Pit had uneven ground with various grades, and (3) did not examine parking areas to assure compliance with 30 CFR parking requirements.

3. A 104(d)(1) order was issued to Frontera Materials Inc for a violation of 30 CFR 46.7(a).

   A fatal accident occurred at this mine site on April 19, 2021, when the mine operator did not provide task training to the haul truck operator of the John Deere 250D haul truck. The haul truck operator did not set the parking brake or chock the wheels when he left the haul truck running unattended on a grade. The haul truck operator stopped in the area to retrieve his lunch from his personal pickup truck. While eating his lunch next to the driver's side door of his pickup truck, the haul truck rolled forward pinning him between the bumper of the haul truck and his personal pickup truck, resulting in fatal injuries. The mine operator did not train the haul truck operator on the John Deere 250D haul truck. Proper task training would have included instructions on setting the parking brake which can be set by activating a switch on the dashboard or turning off the engine.

APPENDIX A
Persons Participating in the Investigation

Frontera Materials Inc

Eddie E. Forshage III	President
Stephen Forshage	Vice President
Sergio Garcia	Supervisor
Javier Martinez	Foreman
Dean Bernal	Safety Consultant
Rick Ramirez	Foremost Paving Safety
Cayetano Galvan	Haul Truck Operator
Armando Olivares	Haul Truck Operator
Jaime Barrientos	Loader Operator
Juan De Dios Martinez	Loader Operator
Sixto Olivera	Loader Operator
Eduardo Rios	Loader Operator
Felipe Garcia	Excavator Operator
Felipe Garcia Gonzales	Excavator Operator
Eduardo Lopez	Service Truck Operator
Jaime Solis	Service Technician
Josue H. Gomez	Welder

Hidalgo County Emergency Medical Services

Martin Garcia	Director of Operations

Hidalgo County Sheriff Office

Rigoberto Cantu	Investigator

Hidalgo County Precinct Three

Juan Pena	Justice of the Peace

Mine Safety and Health Administration

William O'Dell	District Manager
Brett Barrick	Assistant District Manager
Ramiro Jimenez	Supervisory Mine Safety and Health Inspector
Emilio Perales	Mine Safety and Health Inspector