

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Crushed and Broken Stone)

Fatal Powered Haulage Accident
January 2, 2024

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

Accident Investigators

Michael Tefertiller
Supervisory Mine Safety and Health Inspector

Jason Hoermann
Mine Safety and Health Inspector

Lilia Ruan
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Dallas District
1100 Commerce Street RM 462
Dallas, Texas 75242
William O'Dell, District Manager

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OVERVIEW

On January 2, 2024, at 4:46 a.m., Luis Rivera, a 46 year-old customer truck driver with 19 years of over-the-road truck driving experience, died when his truck's trailer tipped over onto the cab of the truck. Rivera was in the process of unloading excess material from the trailer when the accident occurred.

The accident occurred because Rivera did not properly align the truck and trailer prior to raising the trailer to unload the excess material.

GENERAL INFORMATION

Frontera Materials Inc owns and operates the Mobile Crusher #3 Frontera Materials mine (Mobile Crusher #3). This is a surface crushed and broken stone mine located in La Joya, Hidalgo County, Texas. The mine employs 32 miners and operates one 12-hour production shift and one 14-hour loading and shipping shift, five days per week. Belt conveyors stockpile the material and front-end loaders load it into customer trucks for delivery. Rivera worked for V. Flores Trucking, a customer of Frontera Materials Inc.

The principal management official at Mobile Crusher #3 at the time of the accident was:

Sergio Garcia

Plant Supervisor

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on December 27, 2023. The 2023 non-fatal days lost incident rate for Mobile Crusher #3 was zero, compared to the national average of 1.13 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On January 2, 2024, at 4:20 a.m., Rivera arrived at the scale house to obtain a load of one-inch rock for delivery to an off-site job location. According to weigh tickets, at 4:40 a.m., Rivera arrived back at the scale house where, after being weighed, it was determined that the trailer was overloaded by 2,700 pounds of material. Rivera proceeded to the designated customer dump-off area southeast of the scale house. This area is not visible from the scale house and is away from the mine's main road (see Appendix A). Rivera pulled into the dump-off area and jack-knifed his truck. Rivera raised the trailer from inside the cab without releasing the end gate latches, which did not allow the gate to swing open as designed. Based on observing and the measurement of the trailer lift cylinder, the cylinder was at full extension, investigators determined that when Rivera began to raise the trailer to its full height, approximately 20 feet, the load shifted towards the rear and left side of the trailer. The trailer tipped over to the left, with the front end landing on the driver's side of the truck's cab, pinning Rivera in the driver's seat.

At 4:46 a.m., while working in the scale house, Marcos Juarez, Scale Operator, heard a loud noise. At 4:49 a.m., Juarez left the scale house to investigate the loud noise and observed the trailer on the cab of Rivera's truck. Juarez texted Garcia to inform him of the accident. At 4:51 a.m., Juarez called emergency services. At 5:15 a.m., the La Joya Fire Department arrived and assessed the scene. At 5:17 a.m., Skyline Emergency Medical Services personnel arrived, assessed Rivera, and indicated that he was deceased. Sonia Trevino, Justice of the Peace Precinct 3, arrived at the mine and pronounced Rivera dead at 8:20 a.m.

INVESTIGATION OF THE ACCIDENT

On January 2, 2024, at 6:01 a.m., Garcia called the Department of Labor National Contact Center (DOLNCC) to report the accident. At 6:22 a.m., the DOLNCC contacted John Powers, Supervisory Special Investigator. Powers contacted Steven Oates, Staff Assistant, who contacted Homer Pricer Jr., Supervisory Mine Safety and Health Inspector, who assigned Jason Hoermann and Lilia Ruan, Mine Safety and Health Inspectors, to begin the investigation. William Clark, Supervisory Mine Safety and Health Specialist, assigned Michael Tefertiller, Supervisory Mine Safety and Health Inspector, as the lead accident investigator.

At 6:43 a.m., Oates issued a verbal order under the provisions of Section 103(j) of the Mine Act to ensure the safety of the miner and the preservation of evidence. At 2:15 p.m., Hoermann arrived at the mine and modified the 103(j) to a 103(k) order. Hoermann began the investigation,

taking interviews and photos of the accident scene. Ruan arrived at 3:00 p.m. On January 3, 2024, at 8:00 a.m., Tefertiller arrived at the mine and continued the investigation.

MSHA's accident investigation team, along with the Hidalgo County Sheriff's Office, conducted an examination of the accident scene; interviewed management, truck drivers, miners, and other pertinent personnel; and reviewed conditions and work practices relevant to the accident. See Appendix B for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the designated customer dump-off area near the scale house (see Appendix A).

Weather

The weather at the time of the accident was 59 degrees Fahrenheit with an east wind of 6 miles per hour. Investigators determined that the weather did not contribute to the accident.

Equipment Involved

The over-the-road truck involved in the accident was a 2009 Kenworth W900 truck and a 2007 model T90 Travis aluminum frame 39-foot rear dump trailer (see Appendix C). Investigators examined the truck and trailer and performed a functionality test on the air system. Investigators did not identify any defects that contributed to the accident.

Investigators obtained the Travis Body & Trailer, Inc. Universal Truck Trailer Owner's Manual Rev 2/2015. This document contains precautions to be followed when dumping a load out of the trailer. The following dump trailer operating procedures listed in the manual were not followed and contributed to the cause of the accident:

1. Tractor and trailer must be in a straight line on firm-level ground with sufficient overhead clearance.
2. Make sure the tailgate is in the OPEN (unlatched) position when dumping.
3. Failure to observe these precautions could result in a tip-over or damage.

Examinations

A workplace examination had not been conducted in the designated customer dump-off area prior to the accident. Investigators determined that there were no hazards in the customer dump-off area that contributed to the accident. Therefore, a lack of workplace examination did not contribute to the accident.

Training and Experience

Rivera worked for V. Flores Trucking for approximately five and a half months and had 19 years of experience driving over-the-road commercial trucks. Rivera had approximately four and half months of experience operating a rear dump trailer similar to the one involved in the accident. The state of Texas issued a Class "A" Commercial Driver License to Rivera on August 6, 2019. Rivera started loading out of Mobile Crusher #3 three weeks prior to the accident. The mine

operator provided Rivera with site-specific hazard awareness training in accordance with Part 46 training regulations. The investigators determined training 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 cause, and the mine operator implemented the corresponding corrective action to prevent a recurrence.

Root Cause: Rivera did not properly align the truck and trailer prior to raising the trailer to unload the excess material.

Corrective Action: The mine operator developed and implemented a new requirement for the site-specific hazard awareness training that states that over-the-road trucks pulling rear dump trailers must stay in a straight line while offloading excess material. The mine operator added this requirement to the site-specific hazard awareness training signs and paper given to all truck drivers who come onsite.

CONCLUSION

On January 2, 2024, at 4:46 a.m., Luis Rivera, a 46 year-old customer truck driver with 19 years of over-the-road truck driving experience, died when his truck's trailer tipped over onto the cab of the truck. Rivera was in the process of unloading excess material from the trailer when the accident occurred.

The accident occurred because Rivera did not properly align the truck and trailer prior to raising the trailer to unload the excess material.

Approved By:

William O'Dell
District Manager

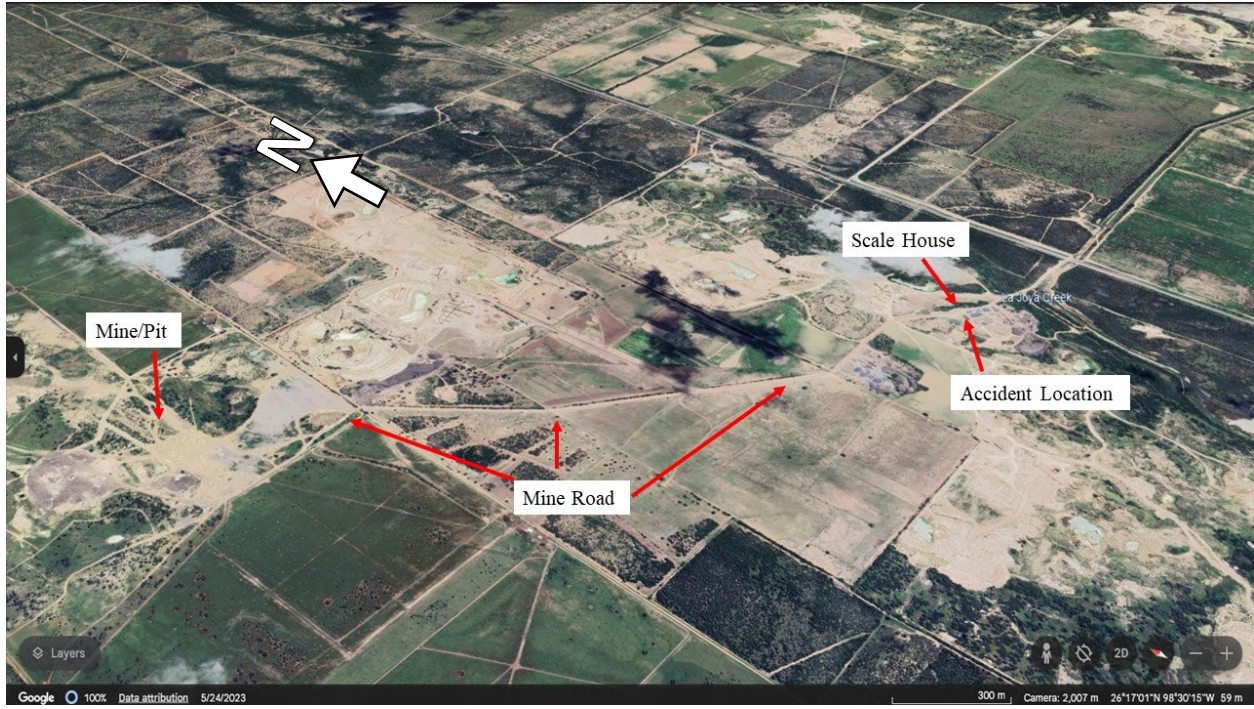
Date

ENFORCEMENT ACTION

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

A fatal accident occurred on January 2, 2024, at 4:46 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 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.

APPENDIX A – Location of the Accident



APPENDIX B – Persons Participating in the Investigation

Frontera Materials Inc

Sergio Garcia
Brandon Henry
Marcos Juarez

Plant Supervisor
Branch Manager
Scale Operator

V. Flores Trucking

Vicente Flores Jr.
Archibaldo Landols
Brandon Holubar

Owner
Translator
Lawyer

Hidalgo County Sheriff's Office

Carlos Hinojosa

Lead Investigator

Mine Safety and Health Administration

Michael Tefertiller
Jason Hoermann
Lilia Ruan

Supervisory Mine Safety and Health Inspector
Mine Safety and Health Inspector
Mine Safety and Health Inspector

APPENDIX C – Kenworth W900 Semi Truck and Travis Aluminum Rear Dump Trailer

