FAI-6786324-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface Nonmetal Mine
(Construction Sand and Gravel)

Fatal Slip or Fall of Person Accident
June 1, 2020

L.J.E. Trucking (C1001)

at

Plant #1
Desert Aggregates
Buckeye, Maricopa County, Arizona
ID No. 02-03413

Accident Investigator

Clayton B. Johnson
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Western Region
Denver District
P.O Box 25367, DFC
Denver, CO 80225-0367
Dustan Crelly, District Manager

Table of Contents

OVERVIEW

On June 1, 2020, at approximately 1:00 p.m., Salvador Moreno, a 61-year-old contract truck driver, with over 13 years of experience driving tractor-trailers, but only four weeks of mine experience, fell from the top of his end-dump trailer while attempting to deploy the tarp. Moreno died later that day at a local hospital.

The accident occurred because mine management did not provide adequate, site-specific hazard awareness training and policies and procedures for customer truck drivers to deploy tarps in a safe manner.

GENERAL INFORMATION

Desert Aggregates owns and operates Plant #1 in Buckeye, Maricopa County, Arizona. Plant #1 employs 15 miners and operates one 10-hour shift, five days a week. Sand and gravel are excavated from an open pit and then crushed and screened before being sold. Officers for Desert Aggregates at the time of the accident were:

Gary Curtis.....President
Bill Jondahl…….....Vice President

L.J.E. Trucking is a contract over-the-road hauler, located in Buckeye, Arizona. L.J.E. Trucking is one of many contract haulers brokered by Desert Aggregates through Trio Aggregate Haulers to transport material to customers from Plant #1. At the time of the accident, L.J.E. Trucking had been hauling out of Plant #1 for four months.

The Mine Safety and Health Administration (MSHA) has not conducted a regular inspection of this mine since it is a new mine, and MSHA was not notified that mining operations commenced on June 1, 2019. MSHA received a Legal ID request via the electronic filing system on March 18, 2019, and an update on October 25, 2019, but the mine never reported any employment hours. MSHA became aware that mining operations had begun when it was notified of the fatal accident.

DESCRIPTION OF THE ACCIDENT

On June 1, 2020, at 5:00 a.m., Salvador Moreno started work driving his tractor-trailer. Moreno was hauling concrete sand from Plant #1 to a block manufacturer. At approximately 1:00 p.m., James Stanley, Front-end Loader Operator, loaded Moreno's truck with his fifth load of the day. While Stanley headed to the area designated as the 57 rock pile to load another truck, he noticed Moreno climbing the end-dump trailer's ladder and assumed he had just finished adjusting the tarp from the ladder. When Stanley looked back at Moreno's truck, he noticed Moreno lying on the ground. Investigators determined that Moreno had been on top of the load and fell from a height of over nine feet, striking his head on the ground.

Brennen Hall, Wash Plant Operator, who saw Moreno lying on the ground from the catwalk of the screen plant, went to render aid to Moreno. Stanley called 911 at 1:08 p.m. and notified Todd Hall, Mine Manager, of the accident and Brennen Hall started to administer cardiopulmonary resuscitation (CPR). Todd Hall arrived and assisted in administering CPR. Todd Hall contacted Kenneth Hall, Assistant Manager, and directed him to drive to the access road to meet emergency medical services.

Buckeye Valley Fire Department responded to the scene at 1:21 p.m. and took over CPR. The victim was transported to Abrazo West Valley Hospital where he was pronounced dead at 2:46 p.m.

INVESTIGATION OF THE ACCIDENT

On June 1, 2020, at 1:21 p.m., Todd Hall called the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Thomas Stefansky, MSHA Safety and Health Specialist. Stefansky contacted Alijerado Bennett, Supervisory Mine Safety and Health Inspector, Mesa South Field Office. Bennett dispatched Gregory Majeran, Mine Safety and Health Inspector, to the mine. Upon arrival, Majeran issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners.

On June 3, 2020, at 9:30 a.m., Clayton B. Johnson, Mine Safety and Health Inspector, arrived on the scene to continue the investigation. MSHA's accident investigation team conducted a physical examination of the accident, 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

The accident occurred 140 yards from the sand stockpile, referred to as 57 rock pile, on the east side of the mine. The area is flat, with no noticeable grade (see Appendix B).

Investigators found footprints in the sand on top of the load where Moreno had been working prior to falling (see Appendix C). Based on witness testimony, investigators concluded that Moreno used the service ladder on the side of the end-dump trailer to access the top and climb onto the load. The footprints in the sand lead away from the location above the ladder, supporting the conclusion that he did not fall from the ladder, but rather, fell from atop the truck. The tarp was found partially deployed. Investigators found evidence of contact along the side of the truck (see Appendix D) from Moreno's boots above the location where he came to rest. The victim fell 9' 6" and was not wearing fall protection. Neither the mine operator nor L.J.E. Trucking provided fall protection to Moreno or other truck drivers.

Equipment Involved

The tractor-trailer was a 2009 Mack truck with a 2005 Eaglerock end-dump trailer. The tractor-trailer was equipped with a SHUR-CO, SHUR-LOK manual tarp (see Appendix E).

Weather

At the time of the accident, the weather was calm and sunny, with a temperature of approximately 110 degrees Fahrenheit. Weather was not judged to be a factor in the accident.

Training and Experience

Moreno had over 13 years of experience operating over-the–road trucks, and had been employed with L.J.E. Trucking for four weeks. Jaime Escobar, L.J.E.'s Owner, task trained the victim on the procedures for deploying the tarp.

The mine operator did not provide Moreno with site-specific hazard awareness training as required by 30 CFR part 46.11. This training includes fall protection, backing procedures and alarms, chemical hazards and usage as well as the mine's lock out/tag out policy. The mine operator stated that the required training had not been provided to the driver and all other customer truck drivers.

The failure to notify MSHA that operations had commenced on June 1, 2019, caused MSHA to not inspect the mine for one year before the fatal accident. This prevented MSHA inspectors from reviewing the mine operators' site-specific hazard awareness training to truck drivers. The mine operator notified the State of Arizona but did not notify MSHA.

ROOT CAUSE ANALYSIS

The accident investigation conducted a root cause analysis to identify the causes of the accident. The team identified the following root causes and the mine operator implemented the corresponding corrective actions to prevent a recurrence.

Root cause: Management did not provide customer over-the-road truck drivers with site-specific hazard awareness training that met the requirements of 30 CFR part 46.11.

Corrective Action: Management revised its existing training plan and implemented policies to ensure all customer truck drivers receive site-specific hazard awareness training. The operator's new site-specific hazard awareness training includes a provision that truck drivers are not allowed to exit the trucks until they have contacted mine management and obtain permission to exit their trucks. All truck drivers have been trained in these new policies.

Root Cause: Management did not have policies or procedures in place to address safe tarping practices.

Corrective Action: Management designated areas for parking so truck drivers can be observed from the crusher tower while tarps are being deployed. Mine management is now training truck drivers on the portion of the site-specific hazard awareness training plan that addresses working from elevated areas and using fall protection. This training includes procedures to request a man lift or dumping the load. Management also revised the site-specific hazard awareness training plan to provide that truck drivers exit their trucks only in designated areas.

Root Cause: Management did not provide notification of commencement of operations to MSHA in accordance with 30 CFR part 56.1000.

Corrective Action: Management has officially notified MSHA of the commencement of operations and MSHA will continue to inspect the mine for compliance and hazardous conditions.

CONCLUSION

On June 1, 2020, at approximately 1:00 p.m., Salvador Moreno, a 61-year-old contract truck driver, with over 13 years experience driving tractor-trailers but only four weeks of mine experience, fell from the top of his end-dump trailer while attempting to deploy the tarp. Moreno died later that day at a local hospital.

The accident occurred because mine management did not provide adequate, site-specific hazard awareness training and policies and procedures for customer drivers to deploy tarps in a safe manner.

Approved by:

_____ _____

Dustan Crelly Date
Denver District Manager

ENFORCEMENT ACTIONS

Order No. 9472448 – Issued June 1, 2020, at 8:00 p.m., under the provision of section 103(k) of the Federal Mine Safety and Health Act of 1977 (Mine Act).

A fatal injury occurred at this mine site on 06/01/2020 at 13:07 hours. This order is issued to protect miners and preserve the accident scene to allow an investigation into the cause or causes that contributed to the fatal injury. This order is issued to ensure the safety of all persons at this operation. It prohibits all activity and vehicle traffic at the primary crusher plant and the truck, end-dump trailer and accident site. This order will remain in place until MSHA has determined it is safe to resume normal operations in this area. The mine operator shall obtain prior approval from an MSHA Authorized Representative to recover and restore operations to affected area.

Citation No. 9474163 – Issued to Desert Aggregates Plant #1 (02-03413), under the provision of section 104(d)(1) of the Mine Act for a violation of 30 CFR § 56.1000.

A fatal accident occurred at Desert Aggregates Plant #1 on June 1, 2020 when the mine operator did not provide notice to MSHA of the commencement of operations. The mine operator did not notify the nearest MSHA Metal and Nonmetal district office before starting operations as required. MSHA did not have the opportunity to inspect the mine for compliance and hazardous conditions prior to this accident. The mine began operations on 06/01/2019. The mine notified the state of the opening but did not notify MSHA of the opening and was aware of the requirement. This violation is an unwarrantable failure to comply with a mandatory standard.

Order No. 9474176 – Issued to Desert Aggregates Plant #1 (02-03413), under the provision of section 104(d)(1) Order of the Mine Act for a violation of 30 CFR § 46.11.

A fatal accident occurred at Desert Aggregates Plant #1 on June 1, 2020 when the mine operator did not provide a customer truck driver with site-specific hazard awareness training. The existing training failed to provide customer truck drivers training for hazards they encounter at the mine. This included fall protection, backing procedures and alarms, chemical hazards and usage as well as the mine's lock out/tag out policy. A customer truck driver suffered a fatal injury when he fell approximately 9' 6" over the edge of the end-dump trailer after climbing atop the load. The mine operator stated that the driver and all other customer truck drivers had not received the required training.

Management engaged in aggravated conduct constituting more than ordinary negligence in that management was aware that they were not providing customer truck drivers site-specific hazard awareness training.

Citation No. 9474177 – Issued to Desert Aggregates Plant #1 (02-03413), under the provision of section 104(a) of the Mine Act for a violation of 30 CFR § 56.15005.

A fatal accident occurred at Desert Aggregates Plant #1 on June 1, 2020, when fall protection was not provided to a customer truck driver that had climbed onto his end-dump trailer. The

driver fell approximately 9’ 6” over the edge of the end-dump trailer, and was not provided a safety belt or line or other means to protect him from falls.

Citation No. 9474178 – Issued to Desert Aggregates Plant #1 (02-03413), under the provision of section 104(a) of the Mine Act for a violation of 30 CFR § 56.11001. A fatal accident occurred at Desert Aggregates Plant #1 on June 1, 2020, when a safe means of access was not provided to a customer truck driver who used the service ladder on the side of the truck bed to gain access the top of the load. The driver died after he fell approximately 9’ 6” over the edge of the trailer.

Appendix A
Persons participating in the investigation

Desert Aggregates Plant #1

Todd Hall ..... Mine Manager
Kenneth Hall ..... Assistant Manager
James Stanley ..... Front-end Loader Operator
Brennen Hall ..... Wash Plant Operator
Tenille Anaya ..... Office Manager

L.J.E. Trucking

Jaime Escobar ..... Owner

Arizona State Mine Inspector

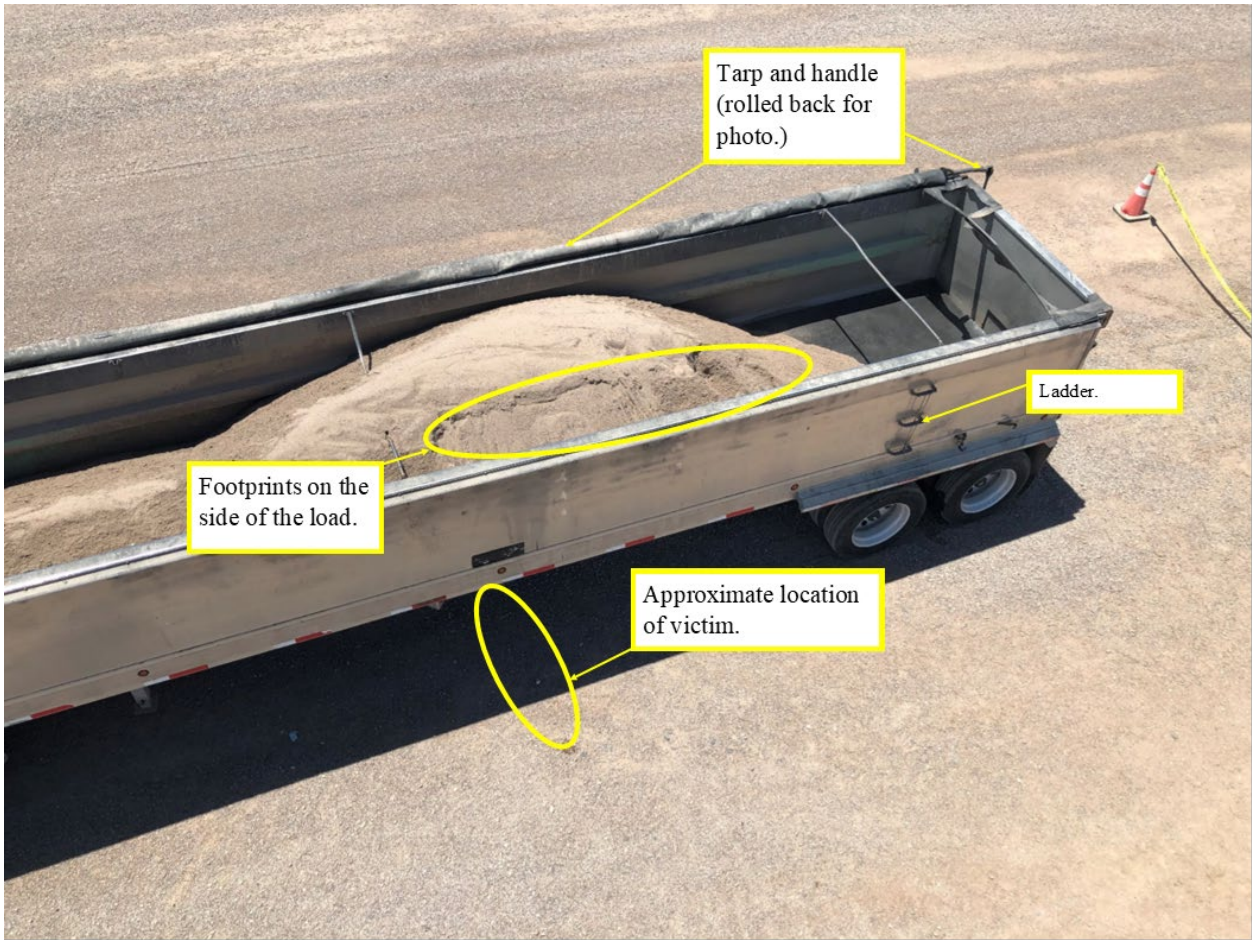
Bill Schifferns ..... Deputy Mine Inspector
Karen Johnson ..... Deputy Mine Inspector

Mine Safety and Health Administration

Clayton B. Johnson ..... Mine Safety and Health Inspector
Gregory Majeran ..... Mine Safety and Health Inspector
Ernesto Vasquez ..... Mine Safety and Health Specialist (Training)

Appendix B
Photograph of Accident Site

Appendix C
Photo showing footprints in the load of sand



Appendix D
Photo showing the end-dump trailer ladder, the tarp and tarp crank handle