FAI-6412182-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Coal)

Fatal Machinery Accident
June 9, 2023

JD's Custom Transport, Inc. (C5402)
Morris, Illinois

at

Advanced Restoration Technologies-1
NEV LLC

Elk Fork, Morgan County, Kentucky
ID No. 15-19846

Accident Investigator

David Faulkner
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Barbourville District
3837 S. U.S. Hwy. 25 E, Barbourville, KY 40906
Samuel Creasy, District Manager

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OVERVIEW

On June 9, 2023, at approximately 1:30 p.m., John Hillard, Sr., a 35 year-old contract truck driver with no mining experience, died after being struck by an excavator bucket while he was attempting to attach a chain to the bucket. The excavator was being used to assist in the unloading of a fuel tank (tank) from a lowboy trailer (trailer).

The accident occurred because: 1) the mine operator and the contractor did not prevent work from being performed under equipment that was raised without being securely blocked in position, and 2) the mine operator did not provide new task training for operation of the excavator in rigging and lifting procedures.

GENERAL INFORMATION

On May 21, 2021, Richard Warner, former Mine Operator of Option Land Development, LLC, placed Advanced Restoration Technologies-1, a surface coal mine, in non-producing status. On June 7, 2023, NEV LLC, became the operator of the mine. NEV LLC contracted JD's Custom Transport, Inc. (JD's) to haul rental mining equipment from another mine site to Advanced Restoration Technologies-1, located in Elk Fork, Morgan County, Kentucky. Delivery of mining equipment to the new site began on June 6, 2023. Hillard was employed by JD's. Production activity had not begun at the time of the accident. Warner was on-site at the time of the accident to recommend former employees Kevin Slone, Mine Foreman, and Noah Holliday, Equipment Operator, for possible employment with the NEV LLC. David Bailey, Security Officer for NEV LLC, and Steve Blackburn, Truck Driver for Action Petroleum, were on-site waiting to fill the tank upon delivery. Warner, Slone, Holliday, Bailey, and Blackburn did not witness the accident.

The principal management official for Advanced Restoration Technologies-1 at the time of the accident was:

Jeffery Cornett	Mine Superintendent

The principal management official for JD's at the time of the accident was:

Marc Incrocci	Chief Operating Officer/Partner

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection with the previous mine operator at this mine on November 21, 2022. There had been no regular safety and health inspections conducted for the current mine operator. The 2022 nonfatal days lost incident rate for Advanced Restoration Technologies-1 was zero, compared to the national average of 0.67 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On June 9, 2023, at approximately 12:00 p.m., Hillard arrived at the mine entrance driving a semi-truck pulling a trailer hauling a 10,000-gallon tank. Anthony Doran, Truck Driver for JD's, arrived with Hillard at the same time in a second semi-truck pulling a trailer hauling a front-end loader. Doran and Hillard parked and unloaded the front-end loader at the mine entrance. Hillard transported the tank about a half mile to the mine office and security station. Doran trammed the front-end loader to the equipment parking area about 500 feet past the location of Hillard's semi-truck and trailer.

According to interviews, at approximately 12:45 p.m., Keith Rudowicz, Truck Driver for JD's, arrived at the mine site entrance driving a third semi-truck pulling a trailer hauling an excavator. Rudowicz unloaded the excavator at the mine entrance and trammed it up the mine access roadway to the location of Hillard's trailer. Rudowicz discussed with Hillard and Doran how to unload the tank and directed the work. Hillard's semi-truck was detached from the trailer so the tank could be unloaded from the front of the trailer. Doran walked to the equipment parking area and retrieved a bulldozer. The bulldozer was positioned near the front of the tank and a separate chain was attached to each side of the bulldozer blade and tank. Rudowicz positioned the excavator near the rear left-side of the trailer to lift the tank and prevent damage to the trailer during unloading (see Appendix A). An attempt to lift the tank was unsuccessful because of the excavator reach. The excavator was repositioned farther away from the trailer and the bucket of the excavator was repositioned closer to the tank.

According to interviews, Hillard climbed inside the trailer wheel well opening and stood on the ground between the rear trailer axles, positioning himself between the excavator bucket and right-side trailer frame. Hillard was attempting to attach a one-half inch chain between the cable loop on the tank and the lifting eye on the rear of the excavator bucket (see Appendix B). Doran stood on top of the right-side trailer frame to give direction and signals between Hillard and Rudowicz. Doran told Hillard to get out of the wheel well.

Rudowicz shouted from inside the excavator cab for Hillard to move out of the wheel well, but Hillard did not hear him. Rudowicz leaned out the excavator cab to direct Hillard to get out from beneath the excavator bucket, inadvertently contacting the joystick. The excavator bucket moved forward, striking Hillard and coming to rest on the right-side frame of the trailer. Doran jumped to the ground to avoid being struck from the sudden movement of the excavator bucket. After realizing what happened, Doran returned to the trailer and found Hillard unresponsive.

At 1:38 p.m., Bailey called 911, and at 1:57 p.m., Morgan County Ambulance Service arrived on-site. Lewis Caudill, Rowan County Deputy Coroner, arrived and pronounced Hillard deceased at 3:23 p.m.

INVESTIGATION OF THE ACCIDENT

On June 9, 2023, at 2:04 p.m., Slone called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Michelle Abner, Office Assistant, who notified Samuel Creasy, District Manager. Creasy notified Dennis Cotton, Assistant District Manager, who sent Billy Buchanan, Supervisory Mine Safety and Health Inspector, to the mine. Creasy assigned David Faulkner, Mine Safety and Health Inspector, as the accident investigator.

At 4:58 p.m., Buchanan and Joseph Armstrong, Mine Safety and Health Inspector, arrived at the mine, and Armstrong issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and preservation of evidence. At 6:15 p.m., Cotton and Faulkner arrived at the mine site. MSHA conducted an examination of the accident scene, interviewed miners, contractors, mine management, and other relevant personnel, and reviewed conditions and work practices relevant to the accident. See Appendix C for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred near the mine office and fuel storage area (see Appendix D).

Weather

The weather was 79 degrees Fahrenheit with variable winds at six miles per hour and partly cloudy skies. The weather did not contribute to the accident.

Equipment Involved

The 10,000-gallon tank involved in the accident had an empty weight of approximately 20,000 pounds and was hauled to the mine on a Globe Lowboy50-ton capacity three axle trailer, model number GTBN513-53-26-GG. The detachable trailer had an overall length of 50 feet, ten inches, and width of eight feet, six inches.

The bulldozer on-site at the time of the accident was a Caterpillar model D8T bulldozer and was positioned in front of the tank. A one-half inch chain with a working load limit

of 11,300 pounds was attached between the bulldozer blade and the lower railings of the tank on both the right and left sides.

The rigging consisted of a one-inch steel wire rope with a tensile strength of more than 50 tons threaded through the center support rail of the rear of the tank, creating a loop with clamps. A one-half inch chain was threaded through the loop and was to be connected to the lifting eye on the excavator at the time of the accident.

The excavator involved in the accident was a Kobelco standard model SK500LC-10 excavator and was used to assist rigging and lifting the tank. The 2.49 cubic yard bucket was equipped with digging shanks and teeth with a lifting eye on the rear of the bucket. A safety locking mechanism was located inside the operator's cab to prevent any hydraulic functions from engaging when applied. Tests conducted during the investigation concluded all controls and safety features operated as designed. The investigator determined that the excavator operator did not engage the safety locking mechanism before leaning out the window of the excavator, inadvertently contacting the joystick.

The excavator's operation manual lists various important safety steps to be followed in separate sections of the manual. This includes the safety steps necessary before an excavator operator gets out of the seat, leaves the operator's compartment, or before any maintenance is performed. All detailed safety precautions listed in the official operation manual must be followed at all times, even if not included in the summarization below.

- *The excavator should never be operated with a person or persons in the swing area of the boom, or beneath the boom or bucket when using the machine to lift, lower, or move objects or payloads.*

  When Hillard entered the wheel well, beneath the excavator bucket, Rudowicz should have shut down the excavator until Hillard was removed from the hazard.

- *Before getting out of the operator's seat for any reason, the operator must securely set the pilot control shut-off lever to the "LOCKED" position to protect against machine movement potentially caused by inadvertent contact with any hydraulic controls.*

  Rudowicz left the controls of the machine with it fully engaged as he attempted to have Hillard removed from beneath the bucket. Leaning out the window, he did not secure the shut-off lever to the "Locked" position to prevent inadvertent movement.

- *Make sure the work area around the machine is clear of all obstacles and persons before beginning operation of the machine. Sound the horn before beginning a swing operation or tram movement.*

  When Hillard entered the wheel well, the work area was no longer clear of persons and Rudowicz should then have shut down the machine until all persons were clear of the machine.

- *A spotter should direct the operator using appropriate hand signals when using the excavator to lift or move objects. The spotter must be located in a safe location at all times.*

  A spotter positioned in a safe location was being used at the time of the accident.

The operation and maintenance manual states that not following the safety procedures in the manual may lead to serious injury or death. The investigator determined that these safety procedures were not all being followed.

Examinations

According to interviews, Cornett stated he was unaware of any on-shift examinations being conducted. JD's employees parked mining equipment at the mine on June 6, 2023; June 7, 2023; June 8, 2023; and June 9, 2023, without an examination conducted by a certified person as required. The last record of an on-shift examination conducted at the mine was on February 21, 2022, however, the investigator determined that a lack of examinations did not contribute to the accident.

Training and Experience

Hillard had six weeks of experience with JD as a truck driver and had no mining experience. Hillard made his second trip to the mine on June 9, 2023.

Cornett is listed as the person in charge of health and safety at the Kentucky mine site that NEV LLC took control of on June 7, 2023. According to interviews, Cornett stated he was unaware of any mine management from NEV being at the new mine site in Kentucky before the accident. However, he was aware the truck drivers were tasked with unloading the equipment and tank at the new mine site in Kentucky.

The contractors encountered complex decisions in accomplishing the task they were assigned. The contractors were attempting to use rigging equipment and the excavator to lift the tank off the trailer in the same manner as they previously observed NEV LLC employees load the tank onto the trailer. However, the contractors were not task trained in safe rigging and lifting procedures concerning hazard awareness and avoidance for the work to be performed. The contractors had not demonstrated safe operating procedures for this new work task and there was no mine supervision to observe performance of the work. The mine operator did not properly task train the contractors to perform the rigging and lifting procedures necessary to remove the tank from the trailer. Upon completion of the accident investigation, NEV LLC provided a plan to MSHA for removing the tank from the trailer. With this plan, the bulldozer that was already connected to the tank, was used to pull the tank from the trailer. After the accident, NEV LLC recognized that using the excavator for removal of the tank was not necessary. The investigator determined that the mine operator did not task train the contractors in the work assigned to them, which contributed to the accident.

ROOT CAUSE ANALYSIS

The accident investigator conducted an analysis to identify the underlying causes of the accident. The investigator identified the following root causes, and the mine operator and contractor implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The accident occurred because the mine operator and the contractor did not prevent work from being performed under equipment that was raised without being securely blocked in position.

   Corrective Action: The contractor and mine operator developed and implemented a new written procedure forbidding contract employees from loading or unloading equipment on mine property and trained all personnel.

2. Root Cause: The accident occurred because the mine operator did not provide new task training for operation of the excavator in rigging and lifting procedures.

   Corrective Action: The mine operator revised the approved training plan to include a new written procedure on task training and trained all personnel.

CONCLUSION

On June 9, 2023, at approximately 1:30 p.m., John Hillard, Sr., a 35 year-old contract truck driver with no mining experience, died after being struck by an excavator bucket while he was attempting to attach a chain to the bucket. The excavator was being used to assist in the unloading of a fuel tank (tank) from a lowboy trailer (trailer).

The accident occurred because: 1) the mine operator and the contractor did not prevent work from being performed under equipment that was raised without being securely blocked in position, and 2) the mine operator did not provide new task training for operation of the excavator in rigging and lifting procedures.

Approved By:

_____ _____

Samuel Creasy Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to NEV LLC.

   A fatal accident occurred on June 9, 2023, at approximately 1:30 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.

2. A 104(a) citation was issued to JD's Custom Transport, Inc. for a violation of 30 CFR 77.405(b).

   On June 9, 2023, a contract truck driver died after being struck by an excavator bucket while attempting to attach a chain to the bucket. The contract truck driver was standing between the bucket and the trailer. The excavator (Kobelco model SK500LC-10, Serial No. YS14S00108) was used to assist rigging and lifting a 10,000-gallon self-contained fuel tank from a trailer (Globe Lowboy Trailer, model GBTN513-53-26-GG, serial # 1G9BN5337NB336081). The excavator bucket was not securely blocked in position at the time of the accident. The contractor did not prevent work from being performed under equipment that was raised without being securely blocked in position.

3. A 104(a) citation was issued to NEV LLC for a violation of 30 CFR 77.405(b).

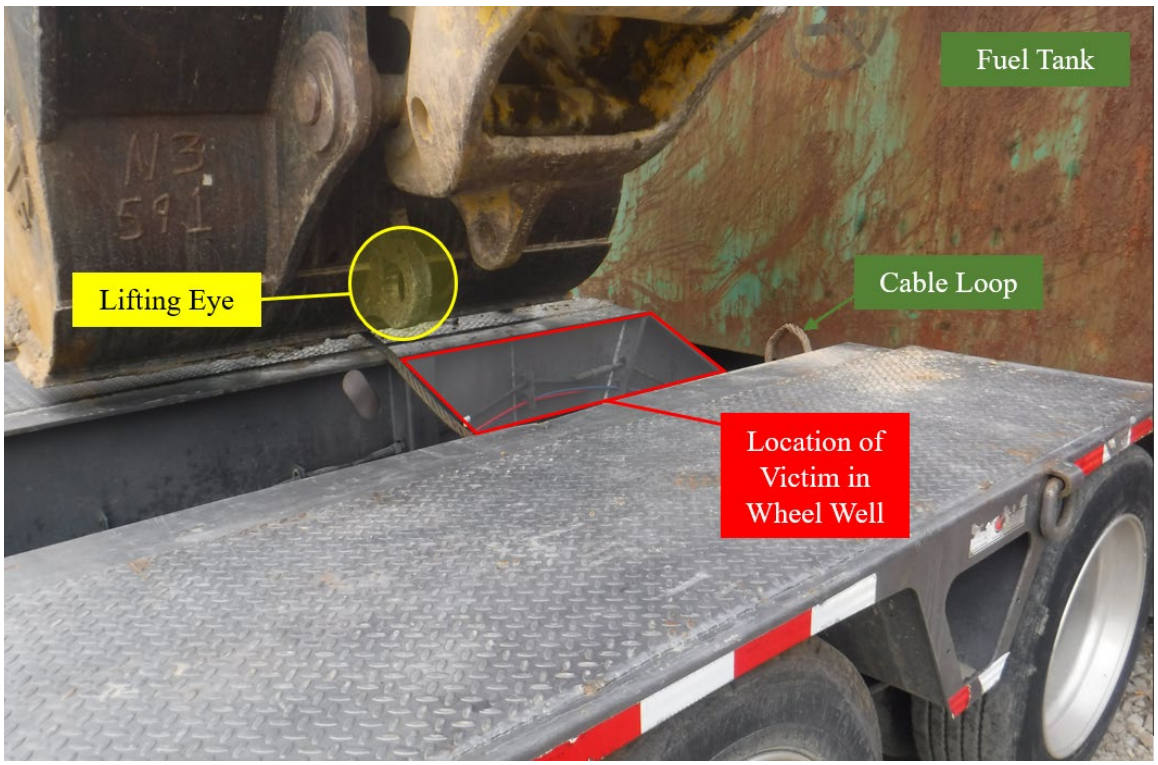
   On June 9, 2023, a contract truck driver died after being struck by an excavator bucket while attempting to attach a chain to the bucket. The contract truck driver was standing between the bucket and the trailer. The excavator (Kobelco model SK500LC-10, Serial No. YS14S00108) was used to assist rigging and lifting a 10,000-gallon self-contained fuel tank from a trailer (Globe Lowboy Trailer, model GBTN513-53-26-GG, serial # 1G9BN5337NB336081). The excavator bucket was not securely blocked in position at the time of the accident. The mine operator did not prevent work from being performed under equipment that was raised without being securely blocked in position.

4. A 104(a) citation was issued to NEV LLC for a violation of 30 CFR 48.27(a).

   On June 9, 2023, a contract truck driver died after being struck by an excavator bucket while attempting to attach a chain to the bucket. The mine operator assigned the new task of using an excavator (Kobelco model SK500LC-10, Serial No. YS14S00108) for rigging and lifting the 10,000-gallon self-contained fuel tank from a trailer (Globe Lowboy Trailer model GBTN513-53-26-GG, Serial No. 1G9BN5337NB336081). The contractors had no record of task training and were experienced only in tramming mobile equipment on and off the trailer. The mine operator did not provide new task training for operation of the excavator in rigging and lifting procedures. The mine operator is aware of the training requirements. The Federal Mine Safety and Health Act of 1977 declares that an untrained miner is a hazard to himself and to others.

APPENDIX A – Accident Scene

APPENDIX B – Excavator Bucket (Rear)



APPENDIX C – Persons Participating in the Investigation

NEV LLC

Jeffery Cornett	Mine Superintendent
David Bailey	Security Officer

JD'S Custom Transport, Inc.

Marc Incrocci	Chief Operating Officer/Partner
Keith Rudowicz	Truck Driver
Anthony Doran	Truck Driver

Option Land Development LLC

Richard Warner	Mine Operator
Kevin Slone	Mine Foreman
Noah Holliday	Equipment Operator

Action Petroleum

Steve Blackburn	Truck Driver

Mine Safety and Health Administration

Samuel Creasy	District Manager
Craig Plumley	Assistant District Manager
Dennis Cotton	Assistant District Manager
Billy Buchanan	Supervisory Mine Safety and Health Inspector
David Faulkner	Mine Safety and Health Inspector
Joseph Armstrong	Mine Safety and Health Inspector

APPENDIX D – Aerial View of Mine