CAI-2017-07

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Powered Haulage Accident
May 18, 2017

Pinnacle Mining Company, LLC
Pinnacle Mine
Wyoming County, West Virginia
ID No. 46-01816

Accident Investigators

Steven Campbell
Coal Mine Safety and Health Ventilation Specialist

Landon Grimmett
Coal Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 12
4499 Appalachian Highway
Pineville, WV 24874
Brian Dotson, District Manager

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PHOTO OF ACCIDENT SCENE

OVERVIEW

On May 18, 2017, at approximately 11:00 p.m., Luches Rosser, a 44-year-old Outby Utility Miner, with 6 years of mining experience, received fatal injuries when his head struck a steel beam installed as supplemental roof support. He and another miner were traveling in a trolley-powered supply locomotive when the accident occurred. Rosser was operating the locomotive, which was in motion, when the trolley pole came off the trolley wire. He rose from his seat to grab the trolley pole to place it back on the trolley wire. After sitting back down, his head struck the steel beam. On May 19, 2017, at approximately 12:50 a.m., Rosser was pronounced dead.

The accident occurred because the mine operator failed to provide adequate task training and comply with safeguard no. 3991332, issued on August 21, 2013, and the track haulage training plan developed by the operator as a result of the safeguard. The safeguard and plan provide that persons riding or operating track mounted vehicles shall not expose themselves to injury by rising up or projecting their arms or legs over the sides of track mounted equipment.

GENERAL INFORMATION

The Pinnacle mine is an underground coal mine operated by Pinnacle Mining Company, LLC, which is a subsidiary of ERP Compliant Fuels. The mine is located near Pineville, Wyoming County, West Virginia. It operates three production shifts, seven days a week and employs a total of 419 miners. Approximately 11,000 tons of raw coal is produced daily from one longwall and two continuous mining sections. Belt conveyors transport the raw coal from each working section to a slope belt which transports coal to the surface. An elevator transports the miners into and out of the mine, and diesel, battery, and 300 VDC trolley-powered track-mounted vehicles are used to transport miners and supplies throughout the mine. The mine is ventilated with five exhausting fans and liberates over 4.5 million cubic feet of methane in a 24 hour period. The mine is on a 5-day spot inspection schedule because of excessive methane, in accordance with Section 103(i) of the Mine Act.

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

Mark Nelson	Director of Mining
Jon Lester	Senior Vice President
Curt Taylor	General Manager
Jack Watson	General Mine Foreman
Chad Lester	Outby Superintendent
Stormy McCoy	Maintenance Superintendent
Dave Meadows	Safety Manager
Lanny Cline	Evening Shift Foreman

A regular (E01) safety and health inspection was started on April 3, 2017, and was ongoing when the accident occurred. The previous regular inspection was completed on March 23, 2017. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine was 6.05, compared to the national NFDL incident rate of 3.34 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On May 18, 2017, Rosser began his shift at 4:00 p.m. as an outby utility miner. Rosser and Tracy Lester, Outby Utility Miner, were instructed by Gerald Cline, Assistant Shift Foreman, to clean the slope belt in the West Mains area of the mine. They used the No. 43 Goodman electric locomotive to travel from the elevator area and parked it in the area where the coal sizer is located. They then rode with Chris Dodson and Matt Muncy, Outby Utility Miners, in the No. 13 jeep (track-mounted mantrip) to the slope belt. Near the end of their shift, Dodson, Muncy, Rosser, and Lester used the No. 13 jeep to travel back to the locomotive. Rosser and Lester then got in the locomotive to travel to the elevator and out of the mine.

At approximately 11:00 p.m., while Rosser was operating the locomotive along the 8 haulage extension track, the trolley pole came off the trolley wire near the No. 42 crosscut. While the locomotive was still in motion, Rosser rose from his seat to place the trolley pole back on the wire. He sat back down just as the overhead clearance dropped abruptly from 15 feet to 53½ inches. A steel beam used as supplemental roof support knocked off Rosser's hard hat, and as he reached to grab it, his head hit on a steel beam. Lester stated the locomotive came to a complete stop at the No. 39 crosscut and he noticed Rosser was unconscious.

With his caplight, Lester signaled Dodson and Muncy who were riding in the No. 13 jeep on their way out of the mine. They stopped approximately 3 crosscuts in front of the locomotive. Lester then ran to Muncy and Dodson to inform them Rosser had hit his head and was unconscious. Lester, Dodson, and Muncy traveled back to No. 39 crosscut to see if Rosser had regained consciousness. They removed him from the locomotive and laid him on the mine floor. Muncy performed artificial respiration on Rosser while Dodson used ammonia inhalants; however, Rosser did not respond.

As Muncy assessed Rosser's condition, Lester used a two-way radio to call the surface; he notified Jeff Davis, Dispatcher, that Rosser was hurt and unconscious. Davis immediately informed Lanny Cline, Evening Shift Foreman, of the accident. At 11:09 p.m., he called 911 to request an ambulance. L. Cline also spoke with Lester on the two-way radio and was advised that Rosser was "knocked out." In his interview, L. Cline stated he heard Dodson say on the radio that Rosser had a faint pulse.

At about 11:13 p.m., L. Cline told Calvin Roark, Cody Thompson, and Terry McGinnis, Outby Utility Miners, who were on the No. 36 mantrip and close to the accident area, to assist with Rosser. When these three miners arrived at the scene of the accident, they assisted Dodson, Muncy, and Lester in placing Rosser in the mantrip, which then proceeded to the elevator. L. Cline also asked Davis to contact G. Cline, Travis Grimmett, Mine Examiner, and James Mullins, Mine Examiner/ Emergency Medical Technician (EMT), and direct them to meet the No. 36 mantrip and assist with Rosser.

At approximately 11:30 p.m., Mullins, Grimmett, and G. Cline met the utility crew at the No. 134 crosscut. Grimmett and Mullins got on the mantrip and immediately began to perform CPR on Rosser. Thompson also stayed on the mantrip and held Rosser's head while the mantrip traveled toward the elevator.

At 11:30 p.m., STAT Emergency Medical Service paramedics, Chad Cox and Samuel Brown, arrived at the mine. After they arrived on the surface with Rosser at about midnight, the paramedics placed him in the ambulance and continued to administer emergency treatment. The ambulance left the mine at 12:25 a.m. on May 19, 2017, and arrived at Welch Community Hospital in Welch, West Virginia at 12:45 a.m. Rosser was pronounced dead by Dr. Anwar Abdeen at 12:50 a.m.

INVESTIGATION OF THE ACCIDENT

On May 18, 2017, at 11:28 p.m., Kenneth Nunn, Safety Specialist, called the Department of Labor (DOL) National Contact Center to report a life threatening injury at the Pinnacle mine. The Contact Center notified Kenneth Butcher, Logan Field Office Supervisor, at 11:38 p.m. who immediately called Tracy Calloway, Staff Assistant. Calloway notified Steven Campbell, Ventilation Specialist/ Accident Investigator, of the accident. Campbell arrived at the mine at 1:11 a.m. on May 19, 2017, and immediately issued a 103(k) order to preserve the accident scene and to prevent the destruction of evidence.

Campbell conducted informal interviews at the mine office with miners who assisted the victim. Clark Blackburn, Assistant District Manager (Enforcement), and Landon Grimmett, Coal Mine Safety and Health Inspector/ Accident Investigator, arrived at the mine at 1:50 a.m. to assist Campbell with the investigation. Officials with the West Virginia Office of Miners Health Safety and Training (WVOMHST) and company officials participated in the investigation (see Appendix A).

On May 19, 2017, Educational Field and Small Mine Services dispatched John M. Browning, Training Specialist, to the mine to review training records and the company's training plan.

On May 24, 2017, and June 21, 2017, MSHA and WVOMHST jointly conducted formal interviews at MSHA's District 12 Office in Pineville, West Virginia, (see Appendix A).

DISCUSSION

Equipment Involved

The No. 43 Goodman 20 ton electric locomotive, serial number 437004, an electro-pneumatic controlled, 300 VDC trolley-powered, track-mounted vehicle, is used to transport supplies in and out of the mine and is capable of seating 2 persons. The locomotive has three types of brakes: dynamic brake, air brakes, and manual linkage. On the evening of the accident, the locomotive was examined by MSHA investigators and no deficiencies were observed with the braking system, sanders, the operational controls, or the trolley pole. The headlights were operating properly and investigators found no deficiencies with lighting or visibility. Speed did not appear to be a factor in this accident.

Investigators examined the 8 haulage extension track, which is an 85 lb haulage track rail system and the 300 VDC trolley wire in the area where the accident occurred and found no deficiencies. The incline of the track between crosscuts No. 41 and No. 42 measured 1.91% grade. At the time of the accident, the track was wet due to

condensation. Investigators examined the trolley wire at the accident scene and there was nothing to indicate why the trolley pole came off the wire at this location. The operator had posted low clearance signs measuring only 3 inches by 3 inches approximately 4 crosscuts from the accident area. The distance between the steel beams in the accident area and the windshield of the No. 43 locomotive measures between 10 inches and 14 inches. Rosser would have had to lower his head by bending or leaning over to prevent his head from contacting the steel beams (see Appendices B and C).

Examination

The mine operator's examination records indicate the 8 haulage extension track was being examined each shift. The examination records for the day of the accident did not reveal any hazards or violations. No hazards were documented in the weekly examination record for the No. 43 electric locomotive.

Previously Issued Safeguard

At the time of the accident, safeguard no. 3991332, issued August 21, 2013, was in effect. This safeguard was issued after a similar accident occurred at the mine. In that accident, a miner hit his head on the mine roof in a low area of the track haulageway and received permanently disabling injuries as a result; he is now partially paralyzed. The safeguard provided that all miners who operate track mounted vehicles be thoroughly trained in their operation. It also required the mine operator to implement a track haulage training plan. Management stated in their interview that they probably did not instruct any foreman or anyone else to cover the safeguard or the track haulage training plan when conducting task training. The operator's plan states:

- No person shall operate a portal bus or jeep unless he has been thoroughly trained in the safety standards governing the operation of the same.
- Persons riding mantrips shall not expose themselves to injury by raising up or projecting their arms or legs over the sides of the bus or jeep.
- Mantrips shall be operated at speeds consistent with the conditions of the haulage road and shall be kept under control at all times.
- Mantrips and or jeeps shall slow down at all curves, active turnouts, blind spots and close clearance areas along haulage roads.
- Persons shall ride only in vehicle compartments provided for that purpose. Riding on top of locomotives, portal busses, flat cars or other equipment not designated to accommodate riders, is strictly prohibited.
- We will place a STOP: LOW TOP AHEAD PROCEED WITH CAUTION sign near the sizer

Investigators learned that standing and grabbing the trolley pole, while the vehicle was in motion, was a common practice at the mine. Policies and the safeguard issued by MSHA designed to prevent this practice were not followed at the mine.

Experience and Training

Rosser began employment at this mine on March 6, 2017, the same day he received annual refresher training. Some of the track haulage safety provisions of safeguard no. 3991332 and the operator's track haulage training plan were in the training documents used during the training.

Rosser was task trained on the same type of locomotive involved in the fatal accident. Investigators determined that the task training given to Rosser was inadequate. Rosser was only trained on the controls of the locomotive as well as the sanders and horn. 30 CFR § 48.7(a) requires task training to include:

> Supervised practice during nonproduction. The training shall include supervised practice in the assigned tasks, and the performance of work duties at times or places where production is not the primary objective; or
>
> Supervised operation during production. The training shall include, while under direct and immediate supervision and production is in progress, operation of the machine or equipment and the performance of work duties.

Rosser did not receive any supervised practice or supervised operation prior to operating the locomotive. In addition to 30 CFR § 48.7(a), this task training was required by safeguard No. 3991332 and the associated track haulage training plan.

Because the task training was not recorded, investigators could not determine when that training took place. A noncontributory citation was issued for a violation of 30 CFR § 48.9(a) for failure to record the training.

Two more safeguards (as per 30 CFR §75.1403) were issued after the fatal accident on June 27, 2017. One required the operator to train all miners to bring the No. 43 locomotive and all other track mounted vehicles to a complete stop before placing trolley poles back on the trolley wire. It also mandated that all miners be trained on this safeguard and that the operator record the training. The other safeguard required the operator to install warning lights, reflectors, and reflective signs along all track haulage and rail haulage roads where abrupt or sudden changes in overhead clearance exist that pose a hazard to miners.

ROOT CAUSE ANALYSIS

MSHA conducted an analysis to identify the most basic causes of the accident that were correctable through reasonable management controls. Root causes were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are the root causes identified during the analysis and the corresponding corrective actions implemented to prevent reoccurrence.

1. Root Cause: The mine operator failed to adequately task train the victim on the electric locomotive he was operating at the time of the accident. The mine operator only trained the victim on the controls of the locomotive.

   Corrective Action: The mine operator trained all miners who operate locomotives and all other track-mounted electric equipment. The training specifically included an instruction that when the trolley pole comes off the trolley wire, the track mounted vehicle must come to a complete stop and the parking brake set prior to placing the trolley pole back on the trolley wire.

2. Root Cause: The mine operator failed to ensure miners were properly trained and were complying with the provisions set forth in the safeguard, issued by MSHA on August 21, 2013, as well as the provisions set forth in the tack haulage training plan developed by the operator in response to the safeguard.

   Corrective Action: The operator re-trained all underground miners on the provisions of the safeguard no. 3991332 issued August 21, 2013, and on the track haulage training plan.

CONCLUSION

The victim received fatal injuries when his head struck a steel beam installed as supplemental roof support. The accident occurred due to the operator's failure to adequately task train the victim, comply with safeguard no. 3991332 issued on August 21, 2013, and comply with the track haulage training plan developed for this mine.

Signed by:

_____ _____

Brian M. Dotson Date
District Manager

ENFORCEMENT ACTIONS

1. Section 103(k) Order No. 9069998 issued on May 19, 2017, to Pinnacle Mining Company, LLC, 8 Haulage Extension track crosscuts 44-39, and Co#43 Locomotive.

   A fatal accident has occurred at this operation on 05/18/2017 at 2318. This order is issued under Section 103(k) of the Federal Mine Safety and Health Act of 1977, to assure the safety of all persons at this operation and prevent the destruction of any evidence which would assist in the investigation of the cause and or causes of this accident. It prohibits all activity at the 8 haulage extension track (break 39 -44) and CO#43 electric motor 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.

2. Section 104(a) Citation (9069999) issued for violation of 30 CFR §75.1403.

   The mine operator failed to comply with Safeguard No. 3991332 issued on 8/21/2013. On 5/18/2017, a fatal accident occurred when a locomotive operator rose from his seat to place the trolley pole back on the trolley wire, while CO No. 43 electric locomotive was still in motion. The locomotive operator then contacted supplemental roof support (steel beams) and received fatal head injuries. Safeguard no. 3991332 states that persons riding or operating track mounted vehicles shall not expose themselves to injury by raising up, or projecting extremities over the sides of any track mounted vehicle. The safeguard required the mine operator to implement a track haulage training plan in which all miners would be thoroughly trained before operating any track mounted vehicle.

3. Section 104(d)(2) Order (9070004) issued for violation of CFR §48.7.

   The mine operator failed to provide adequate task training to a miner for the CO No. 43 Goodman 20 ton electric locomotive. On 5/18/2017, a fatal accident occurred when a locomotive operator rose from his seat to place the trolley pole back on the trolley wire, while CO No. 43 electric locomotive was still in motion. The locomotive operator then made contact with supplemental roof support (steel beams) and received fatal injuries. MSHA's investigation determined that the victim had only been trained on the operational controls of the locomotive, including the sanders and the horn. However, 30 CFR § 48.7(a) requires the following task training which the victim had not received:

Supervised practice during nonproduction. The training shall include supervised practice in the assigned tasks, and the performance of work duties at times or places where production is not the primary objective; or

Supervised operation during production. The training shall include, while under direct and immediate supervision and production is in progress, operation of the machine or equipment and the performance of work duties.

The victim had not received any supervised practice prior to operating the locomotive.

This violation is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A

Persons Participating in the Investigation

(Persons interviewed are indicated by a * next to their name)

Pinnacle Mining Company, LLC

Mark Nelson	Director of Mining
Jon Lester	Senior Vice President
Curt Taylor	General Manager
Jack Watson	General Mine Foreman
Chad Lester	Outby Superintendent
Stormy McCoy	Maintenance Superintendent
*Dave Meadows	Safety Manager
Eddie Persinger	Safety Supervisor/Trainer
*Tracy Lester	Outby Utility Miner
*Chris Dodson	Outby Utility Miner
*Matt Muncy	Outby Utility Miner
*Calvin Roark	Outby Utility Miner
*Cody Thompson	Outby Utility Miner
*Terry McGinnis	Outby Utility Miner
*Travis Grimmett	Mine Examiner
*James Mullins	Mine Examiner/EMT
*Dave Thornsbury	Mine Examiner
*Randall Bowers	General Inside Laborer
*Jeff Davis	Dispatcher
*Lanny Cline	Evening Shift Foreman
*Danny Kennedy	Outby Utility
*Kenny Mullins	Electrician
*Kenneth Nunn	Safety Specialist

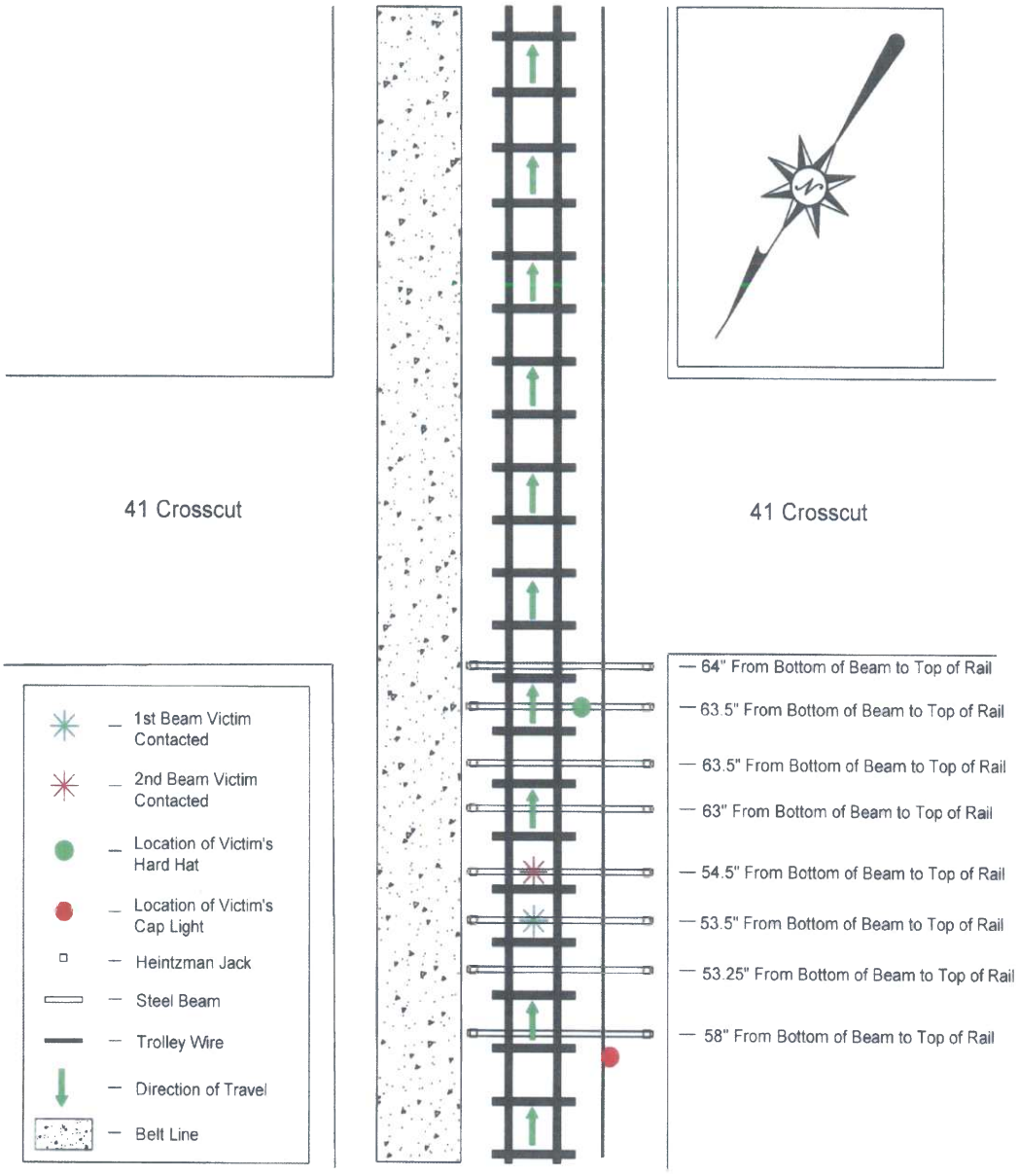
West Virginia Office of Miners Health Safety and Training

Greg Norman	Director
John O'Brien	Inspector at Large
Doug Depta	Assistant Inspector at Large
Paul Smith	Roof Control Inspector
Doug Calloway	Inspector

Mine Safety and Health Administration

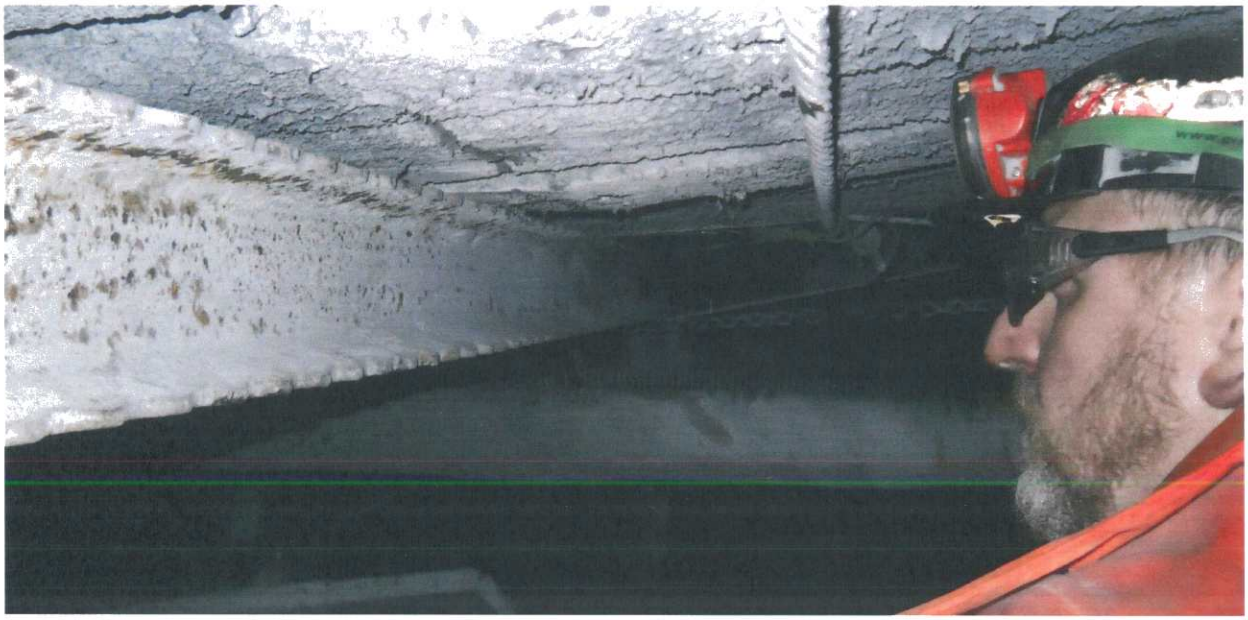
Clark Blackburn	Assistant District Manager (Enforcement)
Landon Grimmett	Coal Mine Safety and Health Inspector
Steven Campbell	Ventilation Specialist
John M. Browning	Training Specialist

APPENDIX B
Accident Scene



APPENDIX C

Photos that show the proximity of the locomotive operator to the steel beam




05.23.2017

APPENDIX D
Victim Information

Accident Investigation Data - Victim Information

Event Number: 7 0 0 3 7 5 5

U.S. Department of Labor
Mine Safety and Health Administration

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:
Luches Rosser	*M*	*44*	*01 Fatal*

5. Date(MM/DD/YY) and Time(24 Hr) Of Death:	6. Date and Time Started:
a. Date: 05/19/2017 b.Time: 0:50	*a. Date: 05/18/2017 b.Time: 16:00*

7. Regular Job Title:	8. Work Activity when Injured:	9. Was this work activity part of regular job?
016 Outby Utility	*073 Operating Locomotive*	Yes | No X

10. Experience	Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days
a. This Work Activity:	*0*	*9*	*5*	b. Regular Job Title:	*0*	*10*	*0*	c. This Mine:	*0*	*10*	*0*	d. Total Mining:	*6*	*10*	*0*

11. What Directly Inflicted Injury or Illness?	12. Nature of Injury or Illness:
084 Supp roof support (heinzman beams)	*170 Coming in contact with beams*

13. Training Deficiencies:

Hazard:		New/Newly-Employed Experienced Miner:		Annual:		Task:	X

14. Company of Employment: (If different from production operator)
Operator

Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment:

Not Applicable:		First-Aid:	X	CPR:	X	EMT:	X	Medical Professional:	X	None:	

16. Part 50 Document Control Number: (form 7000-1)

17. Union Affiliation of Victim: *2555* *United Mine Workers of Amer*