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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
December 30, 2005

H & D Mining Inc.
Mine No. 3
Cumberland, Harlan County, Kentucky
Mine I.D. No. 15-18360

Accident Investigators

Charles L. Barton
Coal Mine Safety Inspector

Eugene D. Hennen
Mechanical Engineer

Originating Office
Mine Safety and Health Administration
District 7
3837 South Highway 25E
Barbourville, Kentucky 40906
Norman G. Page, District Manager

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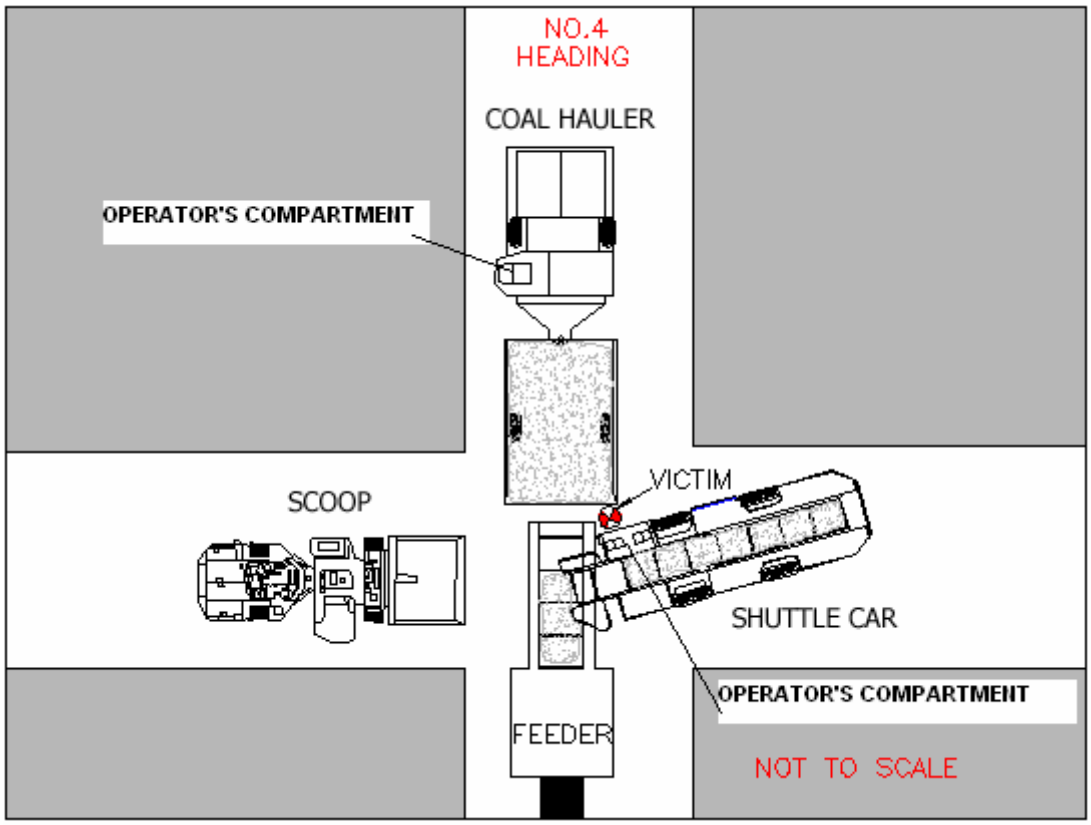

OVERVIEW

On December 30, 2005, David Sherman Morris Jr., a 29-year old shuttle car operator with 4 years mining experience, was fatally injured, when he was struck from behind by a loaded Coal Hauler (ramcar type coal haulage vehicle). The victim had exited the shuttle car to use the mine telephone and was reportedly waiting for the belt to be re-energized.

The accident occurred because the available equipment and procedures for operating the coal haulage system did not ensure that mobile equipment operators had clear visibility at the section loading point. Complications to the victim's recovery existed because proper first-aid was not given to the victim prior to moving him to the surface and transferring him to the ambulance service.

GENERAL INFORMATION

H & D Mine No. 3 is owned by H & D Mining Inc. located in Cumberland, Harlan County, Kentucky. Coal is mined from the Owl coal seam on an advancing section utilizing the room and pillar method with one continuous mining machine and two shuttle cars. The mine normally operates two production shifts and a maintenance shift per day, five days per week. Total employment is 31 persons averaging 1,500 tons of coal daily.

The principal officers for H & D Mining are:

James H. Hurley.....President
Randell H. Fleming.....Secretary
Gary W. Bentley .....Treasurer
Jerry V. Gilliam .....Safety Consultant

The last regular inspection of this operation was completed on December 21, 2005. The Non-Fatal Days Lost (NFDL) Incident rate for Mine No. 3 prior to the accident was 10.98 compared with 5.32 for the nation's underground coal mines.

DESCRIPTION OF THE ACCIDENT

On Friday, December 30, 2005, David Sherman Morris, Jr. (victim) started his shift at approximately 7:00 a.m. at the H&D Mine No. 3, located near Cumberland, Harlan County, Kentucky. Morris was the shuttle car operator on the 001 Mechanized Mining Unit (MMU), located in the 2 East Mains. The day shift production crew, consisting of Morris and eight other miners, arrived on the section at approximately 7:20 a.m.

Coal production began utilizing a 14-9 Joy continuous mining machine and two Joy 10SC shuttle cars. Morris operated the off-standard car and Donald Eural Allen operated the standard car. The mining cycle started at approximately 7:30 a.m. During the first trip to the continuous mining machine, the standard car developed a steering problem. James Couch, foreman, directed Allen to park the shuttle car in the No. 4 heading and use the Long Airdox Coal Hauler until the shuttle car could be repaired. The operator's compartment on the Coal Hauler is located on the "off standard" side of the equipment.

Mining continued in the No. 6 entry, No. 5 entry and No. 5 right working places. While cutting in No. 5 right, the conveyor belts stopped. Morris pulled his car up on the feeder to dump. Seeing the belts were down, Morris went to the phone and called to inquire about the belts. David Logan, repairman, traveled along the belt to the head drive where he found a large rock in it. Couch came to the phone and Morris returned to his shuttle car. The belts started up and Morris leaned into his shuttle car and started dumping his load into the feeder. He stood up and looked outby toward the foreman at the mine phone. At approximately 10:40 a.m. Allen drove the loaded Coal Hauler from the No. 4 entry to the feeder, bucket first. Morris was standing near his "off standard" operator's compartment in front of the part of the feeder where the Coal Hauler approached to

dump. Coal was loaded above the sides of the Coal Hauler. The coal haul operator was on the "off standard" side of the Coal Hauler. These factors obstructed the coal haul operator's visibility as he approached the feeder. As a result, the bucket of the Coal Hauler struck Morris from behind. Morris received near amputating injuries of both lower extremities. His left leg was severed 17 inches above the heel. His right leg suffered severe crushing injuries at the back of the knee.

Brandon Hatfield, scoop operator, was located in the cross cut opposite the off-standard shuttle car when he saw the Coal Hauler strike Morris from behind and fall into the Coal Hauler bucket. Section foreman Couch was the first person to offer to assist Morris. H&D had designated Couch as a select supervisor to receive ten hours or first aid training. However, H&D never provided Couch with the initial select supervisor first aid training or the select supervisor first aid re-training. Therefore, Couch began providing assistance to Morris the best way he knew how. Couch instructed Hatfield to summon help. He also instructed Allen to call outside for help and to travel to the No. 2 entry and locate mine owner, Gary Bentley, Mine Emergency Technician (MET). Couch was in the process of applying cravat bandages above the victim's knees when Bentley arrived. No medical assessment was made concerning the extent of Morris' injuries. Bentley simply instructed Couch to place Morris in a mantrip and take him outside. Bentley then turned and walked toward the other end of the Coal Hauler. Couch finished applying the cravat bandages. No other first aid measures were provided. Bentley returned and instructed Couch to place Morris on a mantrip and "get him out of here." Couch, Hatfield, Tim Shackelford and Shawn Rogers placed Morris in the mantrip and traveled to the surface. Morris was not placed on a backboard. He was not covered to prevent shock. His extremities were not elevated and no other measures were used to stop the bleeding.

Bentley followed in another mantrip and was delayed because his mantrip shut down due to low battery power. He began walking out until he met with another mantrip to catch a ride out.

After the miners got Morris to the surface, they waited for the ambulance for 30-35 minutes. While they waited, Morris continued to bleed. Therefore, the miners applied two pieces of rope to each leg above the knee. Again, no dressings were applied to the injury. Morris' extremities where not elevated. No pressure points were utilized. No tourniquets were applied to stop the bleeding.

Hatfield checked Morris and could not detect vital signs. He also checked Morris's eyes and found the pupils dilated. A decision was made to place Morris in the bed of a pickup truck and transport him immediately to the nearest hospital. A short distance from the mine, the miners met the ambulance. Morris was transferred to the care of Life Care Ambulance Paramedics, who transported him to the Appalachian Regional Hospital in Harlan, Kentucky, arriving at 12:03 p.m. He was pronounced dead at 12:20 p.m.

INVESTIGATION OF THE ACCIDENT

At approximately 11:00 a.m. on Friday, December 30, 2005, Harold Hurley, President of H&D Mining Inc., notified Robert Rhea, Coal Mine Safety and Health (CMS&H) Supervisor, Harlan, Kentucky Field Office that an accident had occurred at the mine. An accident investigation team was immediately dispatched to the mine. Upon arrival, an order was issued pursuant to section 103(k) 0f the Mine Act to ensure the safety of persons at the mine and until an investigation of the accident could be completed. Preliminary information was gathered and the accident scene was examined. Measurements were taken for a scaled drawing, along with photographs being taken.

MSHA and the Kentucky Office of Mine Safety and Licensing (OMSL) jointly conducted the investigation with the assistance of mine management and other miners. Formal interviews were conducted at the OMSL Harlan, Kentucky office on December 31, 2005. Ten persons were interviewed.

DISCUSSION

Accident Location

The accident occurred in the intersection of the No. 4 heading, one break inby spad No. 628 on the 001 MMU of the 2 East Mains. The mining height averaged 67 inches in the intersection. Crosscuts on the section were turned on 90 degree angles left and right out of the No. 4 entry. The advancing section was driving 7 entries. The feeder was a three way dump model, placed in the intersection so that it could be approached from the No. 4 entry and both adjacent crosscuts. Evidence indicated that the victim was struck from behind by the bucket of the Coal Hauler approaching the feeder in the No. 4 entry. The victims' shuttle car had approached from the crosscut between No. 4 and No. 5 entries. A scoop was located in the opposite crosscut at the feeder.

Mining Machinery

The machine which struck the victim was a battery powered Model 818 Coal Hauler manufactured by Long Airdox on June 29, 1995. DBT America now owns the rights to and manufactures the Long Airdox Coal Haulers. Although the mine personnel typically refer to this machine as a "ramcar", DBT America designates it as a "Coal Hauler". The Coal Hauler was a four-wheeled tractor-trailer type machine with articulated steering. The machine was front wheel drive with a hydraulic assist, which engaged the rear trailer wheels when extra traction was needed.

An examination of the machine revealed that visibility was limited due to the loading of the Coal Hauler. The machine was found to have 'side-boards' installed, which resulted in a load height of 60 inches above the mine floor, in a mining height of 67 inches. The Coal Hauler operator's line of sight was estimated to be 45 inches above the mine floor.

Further, the operator's compartment of the Coal Hauler was located on the right side behind the loaded deck, which was the opposite side of the machine from the victim's location, resulting in incompatibility with the remainder of the equipment.

The weight of the empty machine was approximately 59,550 lbs. The manufacturer's recommended maximum GVW was 91,800 lbs. The weight of the loaded Coal Hauler at the time of the accident was less than the manufacturer's recommended GVW.

A thorough examination of the machine was conducted and the machine was found to be within the limits set forth by the manufacture and the requirements of Title 30 CFR. The maximum speed of the loaded Coal Hauler, while traveling down a slight grade, was approximately 3.2 MPH. With the loaded Coal Hauler traveling down a slight grade at maximum speed, a full application of the brakes using the service brake pedal stopped the Coal Hauler in less than 2 feet. With the loaded Coal Hauler traveling down a slight grade at the maximum speed, a panic bar application of the brakes stopped the Coal Hauler in less than 2 feet. The applied brakes held the loaded Coal Hauler on the maximum grade found in the immediate area of the accident. When the switch on the electrical control box in the operator's compartment was placed in the park position, the brakes applied in 1 second or less. The brake system met all of the requirements for automatic emergency-parking brakes listed in 30 CFR 75.523-3.

Human Factors

The scoop operator in the left crosscut at the feeder was an eyewitness. He was taking a break when the accident occurred. In interviews with the witness, he stated, that he did not see the approaching Coal Hauler until he entered the intersection. He stated that he witnessed the Coal Hauler strike the victim and saw the victim fall backwards into the Coal Hauler bucket.

The results of surveys conducted at the scene revealed that the on-coming Coal Hauler could not be heard over the running belt, feeder, and shuttle car. The lights of the approaching Coal Hauler could not be observed over the area lighting, shuttle car lighting and the scoop lights.

A review of records and information provided by the mine operator indicated that the victim had received the required training in accordance with 30 CFR, Part 48. The records revealed that H&D had designated section foreman Couch as a select supervisor to receive ten hours of select supervisor first aid training as required by 30 C.F.R. §75.1713-3. However, Couch had not received any select supervisor initial and refresher training.

In an interview with the paramedic that first treated Morris, the paramedic stated, that "basic first-aid in control of bleeding prior to my arrival would have resulted in a very different outcome." The attending emergency room doctor at the Appalachian Regional Hospital also indicated that, the results "absolutely" would have been different had

bleeding been controlled during the period before transferring the victim to the ambulance service.

Urine and blood samples were obtained from the victim at the hospital. A toxicology analysis was conducted with the results as follows: Drug content of blood – 0.020-0.100 gm/100 mg/l Oxycodone. Drug content of urine – presence of Opiates and Cannabinoid Metabolites. Additional results Oxycodone, Hydrocodone, and Methadone were detected by GCMS.

A urine sample was obtained from the operator of the Coal Hauler at the Appalachian Regional Hospital shortly after the accident. A toxicology analysis was conducted with the results as follows: Opiates – positive – greater than 300 ng/ml and Cannabinoid Metabolites – positive- greater than 50 ng/ml.

ROOT CAUSE ANALYSIS

A root cause analysis was conducted. The following causal factors were identified.

Causal Factor: The Coal Hauler was loaded in a manner which resulted in the load obstructing the vision of the operator.

Corrective Action: An action plan was submitted to the District Manager for approval which limits the load being hauled to the height of the haulage units' sideboards. Also, a Notice to Provide Safeguard(s) was issued requiring all coal haulage equipment to be loaded as not to impede visibility of the operator and in no case higher than the manufactures sideboards.

Causal Factor: The interchanging of equipment allowed for the victim's being located in an area that was not visible to the other operator.

Corrective Action: An action plan was submitted to the District Manager which does not allow for incompatible types of haulage equipment to intermix. Also, a Notice to Provide Safeguard(s) was issued requiring that only compatible equipment be used when hauling coal (ie. standard and off standard shuttle cars or two Coal Haulers).

Causal Factor: The operator failed to ensure that initial select supervisor training was provided as required by Title 30, Part 75.1713-3.

Corrective Action: The supervisor was trained in accordance with 75.1713-3. A meeting with the operator was conducted to review the requirements of Title 30, Part 75.1713-3 and 75.1713-5.

CONCLUSION

An examination of the machine revealed that visibility was limited due to the loading of the Coal Hauler. The machine was found to have 'side-boards' installed, which resulted in a load height of 60 inches above the mine floor, in a mining height of 67 inches. The Coal Hauler operator's line of sight was estimated to be 45 inches above the mine floor. Further, the operator's compartment of the Coal Hauler was located on the right side behind the loaded deck, which was the opposite side of the machine from the victim's location.

The accident occurred because the available equipment and procedures for operating the coal haulage system did not ensure that mobile equipment operators had clear visibility at the section loading point. The Coal Hauler operator was not aware of the shuttle car operator's location at the feeder because his visibility was impeded by coal loaded above the sideboards of the Coal Hauler. Also, the Coal Hauler was not compatible with other equipment.

Complications to the victim's recovery occurred because proper first-aid was not given to the victim. The mine operator did not ensure that the section foreman, as the select supervisor, was properly trained to perform first-aid.

Approved By:

_____ _____

Norman G. Page Date
District Manager

ENFORCEMENT ACTIONS

Order No. 7548698 was issued to H&D Mining Inc. on December 30, 2005, under the provisions of Section 103(k) of the Mine Act:

"This mine has experienced a fatal power haulage accident at the feeder, located in the No. 4 entry of the 001 MMU, approximately 4100 feet inby the portal. This order is issued to ensure the safety of all persons in the mine until and examination and investigation can be conducted. Only company officials, and persons selected by company officials, miners representative, state officials, MSHA officials, and other persons deemed necessary by MSHA to have information relevant to the investigation may enter or remain in the affected area."

Safeguard No. 7553510 was issued to H&D Mining Inc. per 30 CFR 75.1403:

"The Long Airdox Coal Hauler (s/n 818-1077) was loaded above the sideboards impeding the visibility of the operator. A fatal accident occurred when the operator approached a feeder that was occupied with another machine dumping. This is a Notice to Provide Safeguard(s) requiring all coal haulage equipment to be loaded as not to impede visibility of the operator and in no case higher than the manufacturer's sideboards."

Safeguard No. 7553511 was issued to H&D Mining Inc. per 30 CFR 75.1403:

"The Long Airdox Coal Hauler was working in conjunction with a 10SC Joy shuttle car hauling coal from the miner to a feeder to dump. This compliment of equipment set the stage for a traumatic fatal accident to occur due to the blocked field of vision of the Coal Hauler operator. This is a Notice to Provide Safeguard(s) requiring that end driven haulage equipment shall not be intermixed with other types of face haulage equipment."

Citation No. 7553512 was issued to H&D Mining Inc. for a violation of 30 CFR 75.1713-3:

"Initial first-aid training for select supervisor James Couch, foreman, was not conducted. James Couch was the select supervisor on the 001 section of the H&D mine No. 3 when a traumatic injury accident occurred. After interviews with medical personnel it was determined that this injury became a fatality because basic first-aid was not properly performed prior to the injured employee being transported." H&D's failure to conduct the required select supervisor first aid training contributed to the victim not receiving the proper first aid at the mine.

APPENDIX A

List of persons furnishing information and/or present during the investigation

H&D Mining Inc.

James H. Hurley	President
Gary Bentley	Treasure
Lonnie Shepherd	Superintendent
Jerry Gilliam	Safety Consultant

Kentucky Office of Mine Safety and Licensing

Johnny Greene	Deputy Chief Accident Investigator
Ronnie Hampton	District Supervisor
Sherrill Fouts	Electrical Inspector
George Johnson	Mine Inspector
Jay White	Mine Inspector
Ronald Hughs	Mine Inspector

Mine Safety and Health Administration

Ron Burns	Supervisory CMS&H Inspector
Charles L. Barton	CMS&H Inspector/Accident Investigator
Kevin Doan	CMS&H Inspector
Alice Blanton	CMS&H Inspector
Eugene Hennen	Mechanical Engineer
Deborah Combs	CMS&H Training Specialist