CAI-2008-21

UNITED STATES

DEPARTMENT OF LABOR

MINE SAFETY AND HEALTH ADMINSTRATION

COAL MINE SAFETY AND HEALTH
REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Powered Haulage Accident
October 8, 2008

Mountaineer Labor Solution (T025)
Seth, West Virginia

at

Independence Coal Company
Justice No. 1 Mine
Madison (Boone County) WV
MSHA ID No. 46-07273

Martin Carver
Coal Mine Safety and Health Inspector

Jim Honaker
Coal Mine Safety and Health Electrical

Originating Office
Mine Safety and Health Administration
District 4
100 Bluestone Road
Mount Hope, West Virginia, 25880
Robert G. Hardman, District Manager

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OVERVIEW

On Wednesday, October 8, 2008, at approximately 11:02 p.m., a 32-year old contract miner with four months mining experience sustained fatal injuries when he was crushed between a loaded supply car and a coal rib. The victim was attempting to move a high voltage line out of the way of the loaded rail car as it was being pushed by a diesel locomotive along a side track. The locomotive operator's visibility was limited due to overhead electrical cables and water line that were hanging from the mine roof, and supplies that were positioned on the locomotive and the supply cars.

The accident occurred because the victim, who had little mining experience, had positioned himself in a hazardous area. Additionally, the visibility of the locomotive operator was limited, and the miners did not adequately communicate their intentions and/or positions to one another.

GENERAL INFORMATION

The Justice No. 1 mine is owned by Massey Energy and operated by Independence Coal Company, Madison, Boone County, West Virginia. The victim was an employee of Mountaineer Labor Solution, Contractor ID No. T025. Mountaineer Labor Solutions is a temporary employee company that provides coal miners to coal companies.

Bituminous coal is mined by using methods of room and pillar and longwall mining. The mine normally operates two production shifts per day, six days a week. The mine employs 160 persons with 7 working on the surface and 153 working underground. The mine produces an average of 16,475 tons of raw material a day.

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

Billy McCoy...President
Gary Frampton...Vice President
Doug Bender..Superintendent
Greg Neil...Mine Foreman
Dave Brown ....Safety Director

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on September 30, 2008. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2008 was 3.6 compared to a national NFDL rate of 4.2.

DESCRIPTION OF ACCIDENT

On Wednesday, October 8, 2008, Steven Cain, a miner working for Mountaineer Labor Solutions, started the afternoon shift at approximately 3:30 p.m. The third shift supply crew, comprised of Rocky Osborne, motorman, Curtis Ball, motorman, and Steven Cain, helper, gathered at the supply yard to receive instructions from Robert Massey, shift foreman.

Massey instructed Ball and Cain to travel to the slope bottom and clear the area track so loaded supply cars could be lowered into the mine. Osborne and Massey waited on the surface of the mine because a conveyor belt was broken in the mine and additional information was needed from miners who were exiting the mine during shift change.

While waiting on the surface, Massey received instructions to have the crew load conveyor belt onto a flat supply car to be taken underground. Massey instructed

Osborne to call underground and have Ball and Cain return to the surface to load the belt. Massey, Osborne, Ball, and Cain loaded supplies onto five supply cars, around 8:30 pm. Supply car No. 1 was loaded with concrete cinder blocks. Supply car No. 2 was loaded with belt structure and timbers. Supply car No. 3 was loaded with 200 feet of conveyor belt and 14 joints of water line. Supply car No. 4 was loaded with a P-2 tool sled and supply car No. 5 was loaded with a set of air lock (ventilation) doors.

Osborne, Ball, and Cain, transported the five loaded supply cars into the mine to the bottom of the access slope. Supply car No. 5, with the set of air lock doors was put in a side track, also referred to as a spur track. Massey stayed at the surface area of the mine for the remainder of the day.

After switching around the supply cars, the crew proceeded toward the 1 Left side track (spur) with two locomotives (motors) and four supply cars around 10:00 pm. Realizing that the crew was running behind on time, Osborne, outby motorman, called Massey. Osborne asked if the P-2 tool sled could be placed in the 1 Left spur until the next shift. Massey agreed that the sled could be left at the spur. Upon reaching the 1 Left spur, Ball, the lead motorman, uncoupled from the trip and proceeded with his locomotive inby to the 13 Headgate spur, approximately 150 to 200 feet. Cain and Osborne were left with the task of pushing the supply car with the P-2 tool sled into the 1 Left spur. Cain threw the track switch for the 1 Left spur and Osborne started to push the cars toward the spur track with the outby locomotive. (See Appendix C)

As the sled was being pushed into the spur, the inby corner or the sled caught on the overhead high voltage cable that was sagging from the mine roof. The trip was stopped and Cain told Osborne that he was going to the other side of the track to hold the cable up and prevent the sled from hanging on the high voltage cable. Using his cap lamp, Cain flagged Osborne to start into the spur. Osborne continued into the spur track, watching for Cain to flag him to stop. Cain did not signal, so Osborne continued to a point that he thought the supply car would clear the main track. Osborne left the locomotive and walked toward the inby end of the trip, looking for Cain. Osborne did not see or hear Cain as he rounded the turn from the main track line into the spur. He shouted and whistled for Cain with no response, and proceeded toward the end of the trip trying to locate Cain. Osborne then turned around and walked outby toward the surface and noticed Cain's light lying on the mine floor.

Osborne yelled and went to Cain but did not get a response. This was around 11:00 pm. Osborne checked for a pulse and started to administer CPR. Osborne decided that he needed help and starting running toward the area where Ball was located. As Osborne came upon 13 Headgate switch, he met Ball walking

toward him. Osborne told Ball that Cain was hurt and to go get help while he called on the mine phone for assistance.

Ball went to where Cain was lying and checked for a pulse and checked his pupils. Ball started CPR while waiting for help to arrive. Osborne returned to the accident site and helped Ball perform CPR. At this time, Delano Kirby, EMT, along with Roger White, Bobby Thomas, Anthony Rawlings, and Cory Tucker, arrived and helped with the care of Cain until the first aid boxes arrived. Cain was placed on a back board and transported to the surface by Kirby, along with White, Thomas, Rawlings, and Tucker. They arrived on the surface around 11:38 pm. No vital signs were detected on Mr. Cain.

Cain was brought to the surface where the Boone County Ambulance Authority service was waiting. EMS personnel administered care to Cain with no response. A Doctor from the office of the West Virginia State Medical Examiner arrived and pronounced Cain dead. The victim was transported to the West Virginia State Medical Examiner's Office.

INVESTIGATION OF THE ACCIDENT

The Mine Safety and Health Administration (MSHA) was notified of the accident at approximately 11:35 p.m., on Wednesday, October 8, 2008, when Kenneth Bailey, communication person for Justice No. 1 mine, notified Robert Hardman, District Manager. Mr. Hardman notified the Supervisor of the Madison Field Office. MSHA personnel from the Madison Field Office were immediately dispatched to the mine. A 103(k) Order was issued to insure the safety of all persons during the accident investigation.

The investigation was conducted in cooperation with the West Virginia Office of Miners' Health, Safety and Training (WVOMHST), the mine operator, and employees at the mine. The accident scene was photographed, sketched, and surveyed. Interviews were conducted of persons considered to have knowledge of the facts concerning the accident. A list of the persons who participated in the investigation is contained in Appendix A. The victim's information is contained in Appendix B. The on-site portion of the investigation was completed and the 103(k) Order was terminated on March 2, 2009.

DISCUSSION

Experience and Training

Steven Cain started his mining career on May 17, 2008, attending a two-week course at Coal River Training, where he received his 80 hour certificate. Cain started to work for Mountaineer Labor Solution on June 1, 2008, as a newly employed inexperienced miner. Mountaineer Labor Solution provided experienced miner training to Cain on this date. Mountaineer Labor Solution is a contractor, providing underground miners to several coal operators in the region. On June 5, 2008, Cain went to work at the Justice No. 1 mine as an experienced miner, having received the required apprenticeship training program from West Virginia Miners' Health, Safety and Training. Cain's training was comprised of self-contained self rescuer (SCSR), health (noise), and hazardous material handling (haz-com).

On June 9, 2008, Cain received hazard training from the Justice No. 1 mine. Cain's first assignment underground began by working along the coal conveyor haulage system. His duties consisted of shoveling along the belts as well as the maintenance (greasing rollers and replacing worn out rollers) of the system. Cain spent about 8½ weeks performing this activity. Cain was then assigned to work with the supply crew. This assignment consisted of the loading, transportation, and the unloading of mine supplies throughout the mine.

Accident Scene

The mined height in the area of the 1 Left Switch was approximately seven feet. See Appendix C for more detail. The rib clearance for the supply car, loaded with the P-2 tool sled, ranged from 34 inches at the point of the greatest width, to 6 inches at its closest point near the top, and 16 inches near the bottom of the P-2 sled.

The outby coal rib at the corner of the side track did not show signs of being disturbed, however; the area of the inby side of the corner was observed with rock dust disturbed. Cain had crossed the track to hold up the high voltage cable to clear the supplies loaded on the cars passing underneath. As the No. 4 car with the P-2 tool sled was being pushed further into the spur, the sled came closer to the coal rib corner and struck Cain (victim). The inby end of the P-2 tool sled appears to have slid toward the off side, as the sled contacted the victim.

Equipment

The Brookville No. 10 Diesel Powered Locomotive (motor), Serial No. 9156, Model BDC-204P, is a rail-mounted piece of equipment used to transport supplies within the mine. The motor was examined and no deficiencies were found. Additionally, weekly electrical examination records were examined and no problems or hazards were identified.

The operator uses two types of Irwin supply cars, known as low belly and flat cars. The low belly cars are used to move the longwall shields from panel to panel. Both types of these cars are used to haul supplies. The supply cars are joined together by draw heads, better known as couplers. These cars have rail "trucks" that swivel, which allow the long supply cars, being pushed or pulled, to maneuver around curves easier.

The P-2 tool sled was loaded on a supply car with the inby end of the sled 7½ inches higher than the outby end. The distance between the sled and the coal rib ranged from 16 inches on the bottom to 6 inches at the top. Scratch marks, observed on the side of the P-2 tool sled, were created by the victim's self-contained self rescue device (SCSR) and hammer. The coal rib corner was concaved from bottom to top, with the least amount of opening at or near the top.

ROOT CAUSE ANALYSIS

A root cause analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. Listed below are root causes identified during the analysis and the corresponding corrective actions implemented to prevent a recurrence of the accident

Root Cause: A miner with little mining experience and minimal training was assigned work duties with rail supply cars and locomotives (motors), which required adequate communications between motor operator and helper.

Corrective Actions: The operator has developed and implemented a training plan, designed to ensure the safety of persons being trained on new tasks. The operator has provided a qualified person to do the training. The trainer will also provide training on communications between miners operating or working near locomotives and rail cars.

Root Cause: Adequate clearance was not provided along the 1 Left spur and the supplies located on the supply cars. The supplies also hindered the motor operator's visibility.

Corrective Actions: A Safeguard Notice was issued, requiring clearance for all materials on flat cars on the tight or close side of the track, both to the side and to the top.

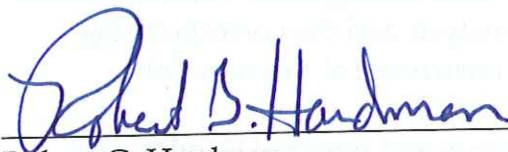
Root Cause: The victim positioned himself in an area of close clearance along the 1 Left side track, while mobile equipment was being operated.

Corrective Actions: Training was conducted for all persons at the mine in general loading and handling of supplies and proper communication between motor operators and other persons assisting with loads. The training included means for communication between operators and persons by the sounding of a horn prior to movement of any trip.

CONCLUSION

The accident occurred because a miner with little mining experience and minimal training was assigned work duties in an area of close clearance with inadequate communication. In addition, supplies loaded on the supply cars hindered the motor operator's visibility.

Approved By:



06/17/2009

Robert G. Hardman
District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) Order, No. 8072447, was issued to ensure the safety of the miners until the investigation could be completed. A fatal powered haulage accident has occurred along the Northeast Mains track. Only those persons specifically designated as part of the investigation team by MSHA shall be allowed to enter the area of the accident for the specific purpose of investigating the accident: Representatives of the Company; Representatives of the Miners; Representatives of the State; and Representatives of MSHA.

2. A 314(b) Safeguard, No. 8072176, was issued citing 30 CFR, §75.1403. On October 8, 2008, a track-mounted supply motor was being used to push a trip of loaded flat cars into a side track. The flat cars had been loaded in a manner that caused inadequate clearance to exist between the loaded materials on the supply car and the mine coal rib (six inches) and mine roof (zero inches). These conditions were found to be contributing factors to an accident that caught a miner between the load on the flat car and the mine rib, resulting in fatal injuries.

   This is a notice to provide a safeguard, requiring clearance of 24 inches be provided on the walkway side and 12 inches above and along the tight side of all materials loaded on a flat car for transportation into or out of the mine.

3. A 314(b) Safeguard, No. 8072177, was issued citing of 30 CFR, §75.1403. A track-mounted supply motor was being used to push a trip of loaded flat cars into a side track. The flat cars had been loaded in a manner that inhibited visibility and decreased communication between the motor operator and the helper. The motor operator did not have a clear line of sight, or know where the motor helper was located, as the loaded supply cars were pushed into the side track. These conditions were found to be contributing factors in an accident that caught a miner between the load and the mine rib, resulting in fatal injuries on October 8, 2009.

   This is a notice to provide a safeguard, requiring the motor operators to assure that all miners are in a safe location, and that direct communication occurs between the motor operators and other miners in the immediate area before rail-mounted equipment is moved.

APPENDIX A

Persons participating in the investigation:

Independence Coal Company

Doug Bender .... Superintendent
Greg Neil .... Mine Foreman
Dave Brown .... Safety Director
Billy McCoy .... President
Gary Frampton .... Vice President
Chris Adkins .... CCO
Dave Hardy .... Spillman Thomas Battle, Esquire
Elizabeth Chamberlin .... President of Safety
Shawn McComas .... Safety Tech
Phil Monroe .... Attorney
Robert Massey .... Chief Electrician/Shift Foreman
Rocky Osborne .... Motor Operator
Delano Kirby .... Foreman
Curtis Ball .... Motor Operator

Contractor-Mountain Labor Solution

Brian Buzzard .... Owner
Jeff Phillips .... Steptoe &Johnson Attorney
Jonathan Ellis .... Steptoe &Johnson Attorney

West Virginia Office of Miners' Health, Safety and Training

Eugene White .... Inspector-At-Large
John Kinder .... Assistant Inspector-At-Large
Ron Wooten .... Director
Terry Farley .... Administrator
Richard Boggess .... R3 District Inspector
Harrison Stollings .... R3 District Inspector
Elaine Skorich .... WV Assistant Attorney General
Barry Koerber .... WV Assistant Attorney General

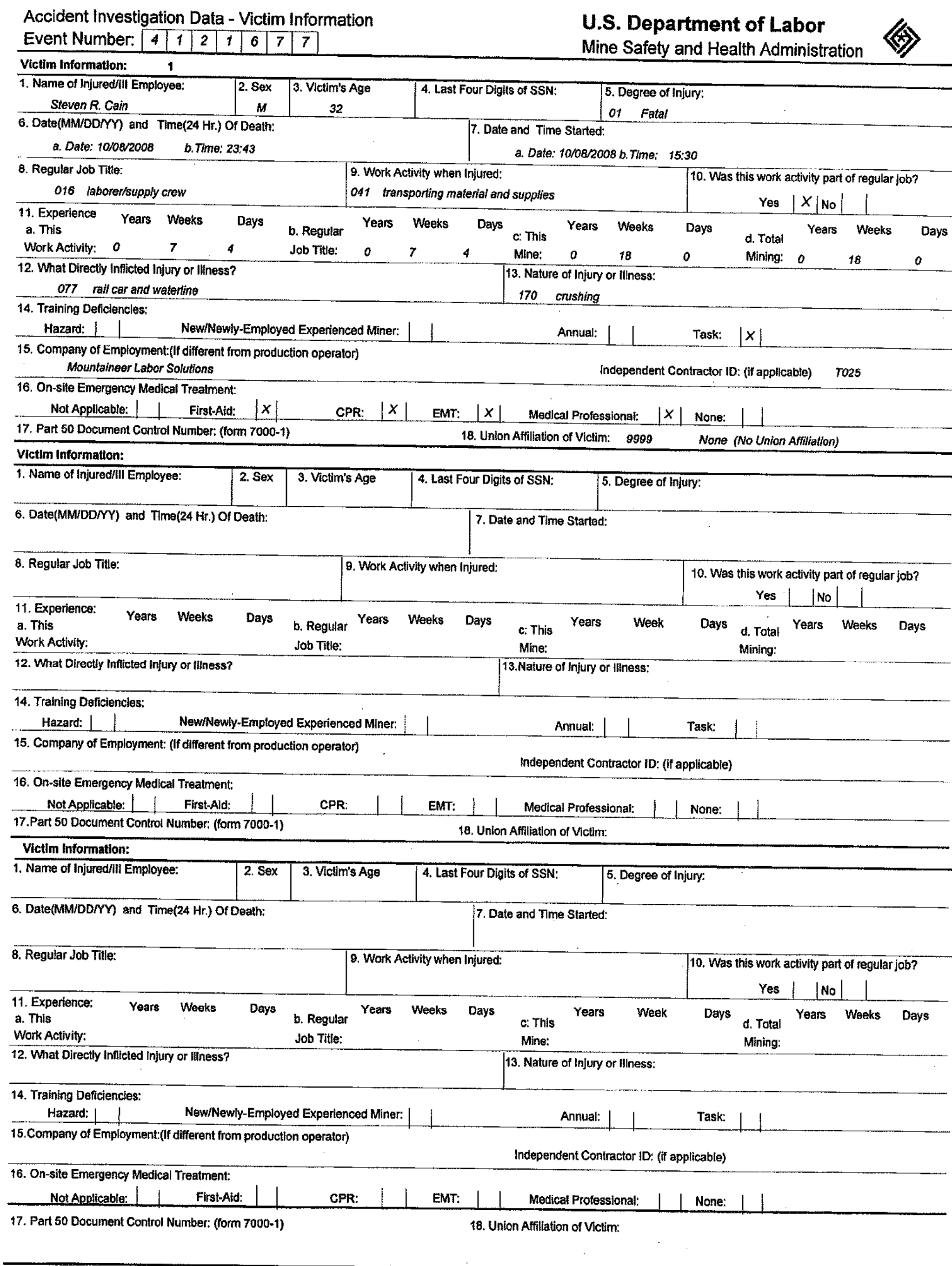
Mine Safety and Health Administration

Richard Kline .... Assistant District Manger/Technical Programs
Martin Carver .... CMS&H Inspector/Accident Investigator
Jim Honaker .... CMS&H Inspector/Electrical

Sharon Cook..CMS&H Specialist
Terry Price..Supervisory CMS& Health Inspector
Jimmy Maynard ....CMS&H/Accident Investigator

APPENDIX B

Victim Information



Accident Investigation Data - Victim Information
Event Number: 4 1 2 1 6 7 7

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

Victim Information: 1

1. Name of Injured/Ill Employee: Steven R. Cain
2. Sex: M
3. Victim's Age: 32
4. Last Four Digits of SSN:
5. Degree of Injury: 01 Fatal
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: a. Date: 10/08/2008 b.Time: 23:43
7. Date and Time Started: a. Date: 10/08/2008 b.Time: 15:30
8. Regular Job Title: 016 laborer/supply crew
9. Work Activity when Injured: 041 transporting material and supplies
10. Was this work activity part of regular job? Yes: X No:

11. Experience

	Years	Weeks	Days
a. This Work Activity:	0	7	4
b. Regular Job Title:	0	7	4
c: This Mine:	0	18	0
d. Total Mining:	0	18	0

12. What Directly Inflicted Injury or Illness? 077 rail car and waterline
13. Nature of Injury or Illness: 170 crushing
14. Training Deficiencies: Hazard: New/Newly-Employed Experienced Miner: Annual: Task: X
15. Company of Employment:(If different from production operator) Mountaineer Labor Solutions
Independent Contractor ID: (if applicable) T025
16. On-site Emergency Medical Treatment: Not Applicable: First-Aid: X CPR: X EMT: X Medical Professional: X None:
17. Part 50 Document Control Number: (form 7000-1)
18. Union Affiliation of Victim: 9999 None (No Union Affiliation)

Victim Information:

1. Name of Injured/Ill Employee:
2. Sex
3. Victim's Age
4. Last Four Digits of SSN:
5. Degree of Injury:
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:
7. Date and Time Started:
8. Regular Job Title:
9. Work Activity when Injured:
10. Was this work activity part of regular job? Yes No

11. Experience:

	Years	Weeks	Days
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:			
d. Total Mining:			

12. What Directly Inflicted Injury or Illness?
13. Nature of Injury or Illness:
14. Training Deficiencies: Hazard: New/Newly-Employed Experienced Miner: Annual: Task:
15. Company of Employment: (If different from production operator)
Independent Contractor ID: (if applicable)
16. On-site Emergency Medical Treatment: Not Applicable: First-Aid: CPR: EMT: Medical Professional: None:
17. Part 50 Document Control Number: (form 7000-1)
18. Union Affiliation of Victim:

Victim Information:

1. Name of Injured/Ill Employee:
2. Sex
3. Victim's Age
4. Last Four Digits of SSN:
5. Degree of Injury:
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:
7. Date and Time Started:
8. Regular Job Title:
9. Work Activity when Injured:
10. Was this work activity part of regular job? Yes No

11. Experience:

	Years	Weeks	Days
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:			
d. Total Mining:			

12. What Directly Inflicted Injury or Illness?
13. Nature of Injury or Illness:
14. Training Deficiencies: Hazard: New/Newly-Employed Experienced Miner: Annual: Task:
15. Company of Employment:(If different from production operator)
Independent Contractor ID: (if applicable)
16. On-site Emergency Medical Treatment: Not Applicable: First-Aid: CPR: EMT: Medical Professional: None:
17. Part 50 Document Control Number: (form 7000-1)
18. Union Affiliation of Victim:

MSHA Form 7000-50b, Dec 1994

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APPENDIX C