
West Virginia Office of Miners' Health, Safety and Training

December 4, 2007

Report of Investigation
Surface Area of an Underground Coal Mine
Fatal Fall of Person Accident

Spartan Mining Company dba Mammoth Coal Company
Stockton # 1 & # 130 Mine
Permit Number U-3042-91A

Region IV Office
142 Industrial Drive
Oak Hill, West Virginia 25901
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GENERAL INFORMATION

This report is based on an investigation conducted in accordance with Chapter 22A, Article 2, Section 66 of the mining laws of the State of West Virginia.

David J. Neal, Belt Man/Fire Boss, was critically injured in an accident at approximately 2:40 a.m. on December 4, 2007. Mr. Neal fell from a surface conveyor belt of the Spartan Mining Company dba Mammoth Coal Company, Stockton # 1 & #130 Mine, while working to replace a belt roller. Mr. Neal died from the injuries he sustained on December 14, 2007.

The West Virginia Office of Miners' Health, Safety and Training, Region IV office, was notified of the accident by the WV Mine Safety Hotline at 3:17 a.m. on December 4, 2007. A joint investigation with the Mine Safety and Health Administration was started immediately.

DESCRIPTION

The Stockton #1 & #130 Mine is located in Hughes Creek near London in Kanawha County, West Virginia. The mine normally operates six days per week, with two production shifts and one maintenance shift per day, and has 85 employees. This mine produces coal on the day and evening shift with a two-week rotation schedule between the day and evening shifts. Maintenance is scheduled on the midnight shift. Coal is transported from this mine through a series of overland conveyor belts, for a distance of approximately three miles, to the Mammoth Preparation Plant, which is located adjacent to the Kanawha River in Kanawha County.

At the start of the 11:00 p.m. shift on December 3, 2007, the midnight shift crew was assigned work duties as outlined in the work order of David Pettry, Mine Foreman. David Neal, Fire Boss, and James T. Shelton, Trainee, were assigned to replace worn-out bottom belt rollers on the cross-hollow conveyor belt located on the surface area of the underground mine. For the first four hours of their shift these two men were to perform this work. Mr. Neal would then take Mr. Shelton underground to work on one of the two working sections of the mine, and he would finish his shift making underground pre-shift examinations.

Mr. Neal and Mr. Shelton had retrieved four bottom rollers out of a conveyor belt that was in the area and not in use at the time. The men planned to use them as replacement rollers in the cross-hollow belt. Four Millennium Contract Services workers were

working on the cross-hollow belt during this time. This company had been contracted to make a vulcanized splice on this belt, but the damaged place was too large and they did not have the correct materials or enough time to finish this work before the day shift started. They decided to trim loose rubber off the top surface of the belt. According to information received, the cross-hollow belt was turned off at the "belt boss" control box, located on the platform where the belt drive motors are located. The stop button on this control box, when pushed, remains engaged in the "off" position. When the Millennium Contract Services workers finished their work at approximately 1:30 a.m., they disengaged the stop button on the belt boss control box. This would allow the belt to be started, if needed. They then left the mine site at approximately 1:45 a.m. on December 4, 2007.

Mr. Neal and Mr. Shelton began replacing bottom belt rollers, as they moved up the inclined walkway along the belt toward the coal stacker tube. Mr. Shelton stated that Mr. Neal would get onto the bottom belt from the walkway and remove (knock-out) the old belt roller from its hanger. The work area was quite confined and only 8 to 12 inches of clearance existed between the bottom belt and the cross-support beams. A chain hoist would then be used to raise the bottom belt so that the replacement roller could be installed.

Mr. Neal and Mr. Shelton had replaced two of the rollers and were in the process of replacing the third roller. At this time they were 52'9" above the ground. Mr. Shelton stated that he had carried the third roller to the work site and Mr. Neal was lying on the bottom belt working to remove the old belt roller shaft. Mr. Shelton stated that he laid the bottom belt roller down on the walkway and told Mr. Neal he was going to get the chain hoist. He had walked approximately ten (10) feet down the walkway when he suddenly heard Mr. Neal scream, "Turn the belt off!" The conveyor belt was running and he saw Mr. Neal's cap light go by on the bottom belt. Mr. Shelton immediately activated (pulled) the pull cord in order to stop the belt, but the belt coasted a short distance (approximately 50 feet). He thought the belt was not going to stop, so he activated the pull cord at two other locations. After the belt stopped, he realized that Mr. Neal had fallen off the belt and he ran down the walkway to seek help.

A short time earlier, Lawrence Click, Dispatcher/Communication Man, sat down in front of the computer screen of the "belt boss" (which is located in the mine office). He stated that he looked at the screen and noticed that all of the belts were off. He said he then got a sandwich out of his lunch bucket and looked back at the screen. At this time he realized the cross-hollow belt had been started. He thought this was unusual and looked out the window of the office toward the belt. He saw someone (Mr. Shelton) running down the walkway of the cross-hollow belt. He stated he knew something was wrong and he decided to drive the shop truck to the area. Mr. Shelton tells him that Mr. Neal had fallen from the belt. Mr. Click returned to the office and called an ambulance. Kenny House, Motorman, had just finished his shift and stopped by the office to get a cup of coffee before he left the mine site, as Mr. Click was calling for an ambulance. Mr. Click told Mr. House that Mr. Neal had fallen from the cross-hollow belt and to immediately go to the accident site and render assistance. He also called the bathhouse

(which is approximately ½ mile away) and summoned the help of John A. Daniel, Motorman, and Larry Dangerfield, Fire Boss, who were outside the mine at the time. Mr. Click told the men of the accident and requested their help. Mr. Daniel and Mr. Dangerfield responded shortly thereafter and assisted in administering first-aid until the Cedar Grove Ambulance Service arrived at approximately 3:14 a.m. Due to the severity of Mr. Neal's injuries, he was transported by ambulance to a site approximately ¼ of a mile away and then taken by helicopter to Charleston Area Medical Center in Charleston, West Virginia. He remained hospitalized until his death on December 14, 2007.

FINDINGS OF FACTS

1. David J. Neal was 52'9" above the ground when he was lying on the bottom belt of the cross-hollow belt attempting to change a bottom belt roller. He was carried 49'6" on the bottom belt, after the belt started and fell 39'3" to the frozen coal stockpile. Evidence indicated, due to the 8 – 12 inch clearance that existed in the confined work area, Mr. Neal had contacted several of the belts cross-support beams before he fell.
2. Fall protection (such as a safety harness and lanyard) was not utilized during the work activities, the conveyor belt was not de-energized by locking and tagging the power source out of service, and the audible (start-up) alarm did not work.
3. A pull cord, attached to stop switch boxes, was installed along the length of the cross-hollow belt. Activating (pulling) the pull cord/switches stops the belt. Each pull cord switch has two stop controls; one on each side of the control box. A four-inch (4") red-colored metal flag drops indicating that the belt is "turned off" at that location. The belt can be restarted by re-setting the flag on the control box. The accident investigation team found that three flags on two pull cord switch boxes had been activated, indicating the belt was off at those locations.
4. There were only two other controls that could start the cross-hollow conveyor belt. One, the "belt boss", was located on the platform of cross-hollow belt drive. The second control, the "master control box", was located in the dispatcher's office. According to testimony, the belt was not started at either of these two locations.
5. Tests on the belts electrical control circuit were conducted by the accident investigation team. There were no defects found that would explain why the belt unexpectedly started.
6. According to testimony, the cross-hollow belt was off at the start of the shift. Neither Mr. Shelton nor Mr. Neal activated any stop ("off") switch to assure the belt would not inadvertently start during their work activities.

CONCLUSION

David J. Neal suffered severe injuries on December 4, 2007 as a result of his fall from the cross-hollow conveyor belt, while attempting to change a bottom belt roller. The failure to use fall protection and properly de-energize the conveyor belt, to prevent unexpected starting, contributed to the accident.

ENFORCEMENT ACTION

A non-assessed control order was issued in accordance with Title 36, Series 19, Section 7 of the WV Mining Laws in order to preserve the scene of the accident and to complete an investigation. The WV Office of Miners' Health, Safety and Training issued four notices of violation during the investigation. The following violations are considered to have contributed to the accident:

Notice of Violation; Chapter 22A, Article 2, Section 53c(7):

An adequate alarm was not provided on the cross-hollow surface belt that would warn workers that the belt is getting ready to start.

Notice of Violation; Chapter 22A, Article 2, Section 53a(5):

No safety protection such as safety belt, lifeline or lanyard was used by Mr. Neal while working in an area which was approximately 52' high.

Notice of Violation; Chapter 22A, Article 2, Section 40(20):

No means was provided at the electrical switch box that supplies power to the cross-hollow belt that would allow a non-certified electrician to lock and tag out the electrical power on the cross-hollow belt prior to performing work on the belt.

Notice of Violation; Chapter 22A, Article 2, Section 40(17):

The power circuit that supplies electrical power to the cross-hollow surface belt was not de-energized (locked and tagged) prior to performing work on the conveyor belt as required.

RECOMMENDATIONS

In accordance with Title 56, Series 8, Section 9.4 of the WV Mining Laws, Spartan Mining Company dba Mammoth Coal Company shall modify the Comprehensive Mine Safety Program to include, but not be limited to the following:

Applicable power circuits shall be locked and tagged out when repairs are to be performed on conveyor belt components: such as or during belt moves, splicing belts, changing rollers and removing guards. Lock-out/tag-out signs will be posted at the "belt boss" stations.

These procedures will be reviewed with all employees and documented on an MSHA 5000-23 form.

1. Lock and tag-out procedures:
 - a. Disengage the circuit breaker if it is not in the "off" position.
 - b. Place a lock and tag, making it impossible to energize any power source.
 - c. Promptly remove lock and tag from affected machinery or equipment, when repairs are completed.

2. Elevated areas:
The use of a harness and lanyard, while working in elevated areas, is required when working above six (6) feet in height.

ACKNOWLEDGMENT

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the employees and management of Spartan Mining Company dba Mammoth Coal Company, and the Mine Safety and Health Administration during this investigation.

Respectfully Submitted:

Clarence L. Dishmon
Clarence L. Dishmon, Deep Mine Inspector No. 172

2-20-2008
Date

APPENDIX

- Mine Information Sheet
- Victim Information Sheet
- Person Present During Investigations and Interviews

MINE INFORMATION

COMPANY Spartan Mining Company dba Mammoth Coal Company

MINE NAME Stockton #1 & # 130

WV PERMIT U-3042-91A

ADDRESS P. O. Box 150, Cannelton, West Virginia 25036

COUNTY Kanawha

DATE PERMIT ISSUED December 3, 2004 WORKING STATUS Active

LOCATION Hughes Creek Road near London, West Virginia

UNION _____ NON-UNION Yes

DAILY PRODUCTION Approximately 4,000 raw tons

ANNUAL PRODUCTION TO DATE 901,943 tons

TOTAL EMPLOYEES 85 NUMBER OF SHIFTS 3

NAME OF COAL BED Stockton

SEAM THICKNESS 84"

ACCIDENT INCIDENT RATE 3.8 LOST TIME ACCIDENTS 4

TYPE OF HAULAGE Shuttle car and conveyor belts

WV OMHST INSPECTOR Clarence Dishmon

DATE OF LAST INSPECTION November 14, 2007

NOTIFIED BY WV Mine Safety Hotline

TIME OF NOTIFICATION 3:17 a.m. on December 4, 2007

CMSP – ANNIVERSARY DATE November 15, 2007

CMSP – CONTACT PERSON Shane McPherson, Safety Director

VICTIM INFORMATION

NAME OF VICTIM David J. Neal

ADDRESS [REDACTED]

AGE 57 SOCIAL SECURITY NUMBER [REDACTED]

TOTAL MINING EXPERIENCE 15 years

EXPERIENCE AT THIS MINE Approximately 3 1/2 months

AVERAGE NUMBER OF DAYS WORKED PER WEEK 6

AVERAGE NUMBER OF HOURS WORKED PER WEEK 54 PER DAY 9

LENGTH OF SHIFTS AT MINE 9 hrs. TRAVEL TIME TO/FROM WORK 25 min.

OCCUPATION AT TIME OF ACCIDENT Belt Man / Fire Boss

REGULAR OCCUPATION Belt Man / Fire Boss

COAL MINER'S CERTIFICATION [REDACTED] Mine Foreman

SPOUSE'S NAME [REDACTED]

DEPENDENTS [REDACTED]

DATE OF ACCIDENT 4th DAY OF December, 2007

CAUSE OF ACCIDENT: David J. Neal was lying on the bottom belt of a surface conveyor belt changing a bottom belt roller, when the belt unexpectedly started. He was carried approximately 49 feet on the bottom belt and then fell 39 feet to the coal stockpile located below.

DATE OF DEATH: 14th DAY OF December, 2007

INVESTIGATION

The following persons were present during the on-site investigation and interviews conducted on December 4, 2007:

SPARTAN MINING COMPANY dba MAMMOTH COAL COMPANY

Larry Ward	President
Shane McPherson	Safety Director
David Hardy	Attorney
James T. Shelton*	Trainee / Apprentice Miner
Dave Hughart*	Electrician
Lawrence Click*	Third Shift Dispatcher

MASSEY COAL SERVICES

Elizabeth Chamberlin	Vice President of Safety and Training
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MINE SAFETY AND HEALTH ADMINISTRATION

James Humphrey	Accident Investigator
Otis Matthews	Accident Investigator

WV OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

Clarence L. Dishmon	Deep Mine Inspector
Hubert W. Miller	Electrical Inspector

*denotes persons interviewed

INTERVIEWS

The following persons were present during the interviews conducted on December 5, 2007:

SPARTAN MINING COMPANY dba MAMMOTH COAL COMPANY

Larry Ward	President
Shane McPherson*	Safety Director
David Hardy	Attorney
James T. Shelton*	Trainee / Apprentice Miner
Lawrence Click*	Third Shift Dispatcher
Kenneth Houch*	Motorman
David Pettry*	Mine Foreman
John A. Daniel*	Motorman

MINE SAFETY AND HEALTH ADMINISTRATION

James Humphrey
James Honaker

Accident Investigator
Electrical Inspector

WV OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

Terry L. Farley
Clarence L. Dishmon
Hubert W. Miller

Administrator
Deep Mine Inspector
Electrical Inspector

*denotes persons interviewed