# UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

#### **COAL MINE SAFETY AND HEALTH**

#### REPORT OF INVESTIGATION

**Surface Coal Mine** 

Fatal Slip or Fall Accident December 14, 2012

Taft Coal Sales & Associates, Inc. Choctaw Mine Parrish, Walker County, Alabama ID No. 01-00347

**Accident Investigator** 

William Harbin Surface Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 11
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Richard A. Gates, District Manager

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#### **OVERVIEW**

On Friday, December 14, 2012, at approximately 2:50 p.m., a 52-year-old rock truck operator was injured while ascending an access ladder to the operator's cab of a Komatsu HD 785 rock truck, Company No. 336. The victim, while ascending the access ladder, slipped and fell to the ground landing on both feet, and then fell over onto his back. The victim was treated on site by medical personnel and then transported by ambulance to Walker Baptist Medical Center in Jasper, Alabama. Due to medical complications he was later transported to University of Alabama Hospital's Trauma Unit in Birmingham, Alabama. The victim died from the injuries sustained in the fall on December 28, 2012.

#### GENERAL INFORMATION

The Choctaw Mine is owned and operated by Taft Coal Sales & Associates, Inc., (a subsidiary of Walter Minerals) located near the City of Parrish, Walker County, Alabama. The mine is a surface coal operation, utilizing typical drilling and blasting with explosives to break the overburden. This operation utilizes a Bucyrus-Erie 1300 dragline, operating 24 hours-per day, Monday through Saturday. The dragline is supported by bulldozers, excavators, and rock trucks; which are operated on two, 10-hour shifts. The typical overburden is 150 feet. Once the overburden is removed, the coal seam is excavated utilizing front-end loaders, excavators, and coal haulage trucks. The mine employs 64 hourly and 7 management personnel. The primary coal seams mined are the Pratt, Nickel, and America coal seams. The combined thickness of the three coal seams averages 70 inches. Daily production is approximately 1,300 tons.

The most recent semi-annual safety and health inspection (E01), was completed by MSHA on October 10, 2012. The non-fatal day's lost (NFDL) incidence rate at the mine for 2012 was 0.00, compared to the 2012 national rate of 1.09 for coal mines of this type.

The principal officials of the mine at the time of the accident were:

David Peters	Mine Superintendent
Danny Tubbs	Evening Shift Pit Foreman
Jimmy Swafford	Mobile Equipment Maintenance Supervisor
Nixon Hill	Day Shift Pit Foreman
Stanley Bolton	Evening Shift Pit Foreman

#### **DESCRIPTION OF THE ACCIDENT**

On the day of the accident, the evening shift personnel arrived early to begin their shift at 2:00 p.m. A meeting was held in the employee parking lot with both day and evening shift workers present. David Peters, Mine Superintendent, discussed with the workers the productivity of the mines for the year and then gave them their bonus checks. A safety meeting was also held at this time.

At approximately 2:30 p.m., John Key (victim) and four other equipment operators left the employee parking lot in a troop truck (transport vehicle) and traveled to the rock truck parking lot. Key arrived at his rock truck (Company No. 336), placed his lunch box and cooler on the bumper of the rock truck, and began his walk around safety check. After finishing his safety check, Key then returned to the operator's side to retrieve his lunch box and cooler, which he tossed to the top of the catwalk. Key then began to ascend the access ladder and

was seen falling from the truck by Steve Wise, a contract coal truck driver who was driving by the parking lot. Wise saw the victim fall from the truck, landing on both feet, and then fall onto his back.

Wise exited his truck and asked the victim if he was okay. The victim replied, "My ankle is burning and I would like to lay here on my back for a few minutes." Wise notified Tubbs by CB radio that Mr. Key had fallen from his rock truck and was injured. Wise requested that Tubbs come to the accident scene.

Tubbs, Swafford, and Peters arrived at the scene, assessed the victim, and determined an ambulance was needed. The ambulance arrived and transported the victim to Walker Baptist Medical Center (W.B.M.C.) in Jasper, Alabama. Key was diagnosed with a fracture of the left ankle, a fracture in the area of the left knee, and a sprain of the right ankle. While treatment was being given at W.B.M.C. the victim began having medical complications. The decision was made to transfer him to the Trauma Center at the University of Alabama (UAB) Hospital in Birmingham, Alabama, by ambulance on December 15, 2012, at 2:30 a.m. Mr. Key later died from injuries sustained in the fall on December 28, 2012, at UAB Hospital. The Jefferson County Coroner stated on the Alabama Certificate of Death that the immediate cause of death was "Multiple Organ Failure – Pulmonary, Renal and Cardiac," and an underlying cause of death was "Pneumonia and Multiple Injuries – Right Ankle and Left Tibiae Fracture." No autopsy was conducted.

#### INVESTIGATION OF THE ACCIDENT

When MSHA was notified on December 28, 2012, that Mr. Key died, Ed Boylen, Bessemer Field Office Supervisor, issued a verbal 103(j) Order to David Peters, Mine Superintendent. The 103(j) Order was reduced to writing upon arrival at the mine by William Harbin, MSHA Accident Investigator, and then modified to a 103(k) Order to ensure the safety of all persons during the accident investigation. Harbin conducted an examination of the accident scene, interviewed witnesses, and reviewed work conditions relative to the scene. Persons participating in the investigation are listed in Appendix A. Ten persons were interviewed during the investigation.

#### DISCUSSION OF THE ACCIDENT

#### **Pre-operational Checks and Maintenance**

The Komatsu HD 785 rock truck operators conducted pre-operational checks on Company No. 336 truck the day of the accident, and did not report any safety problems. For more than a week prior to the accident, the pre-operational check records did not reveal any safety issues reported.

#### **Physical Factors**

The Komatsu HD 785 rock truck is powered by a twelve cylinder turbocharged diesel engine.

The boarding system on the truck contains a bottom wire rope step that leads to a solid steel step made into the bumper of the rock truck. Next, there is a landing platform. The ladder is above the landing platform and consists of five rungs with an overall length from bottom to top of sixty inches.

#### **Environmental and Human Factors**

The weather conditions at the time of the accident were clear.

On the day of the accident, the evening shift started at 2 p.m., instead of the normal 4 p.m. start time. After the meeting ended in the employee parking lot, equipment operators were transported by the troop truck to the rock truck parking lot. The conditions at the rock truck parking lot were dry and the rock truck was sitting on level ground.

Inspection of the boarding system on the truck indicated no mechanical failures and no slipping hazards present.

#### Work Experience and Training

The victim had been operating a Komatsu HD 785 rock truck at the Choctaw Mine since January, 2003.

The victim received the required Annual Refresher training each year during his employment with Taft Coal Sales & Associates, Inc. He also received Task Training for operation of a Komatsu 475 bulldozer, Caterpillar D10T bulldozer, Caterpillar 980G end loader, Mack water truck, Caterpillar 777F rock truck, Komatsu HD 785 rock truck and a Mack service truck.

## **Accident Scenario**

Evidence obtained through interviews indicates the victim fell while ascending the access ladder. An inspection of the ladder/mounting system was conducted and no hazards or defects were found.

#### **ROOT CAUSE ANALYSIS**

An analysis was conducted to identify the most basic cause of the accident, which could have been corrected through reasonable management controls. During the analysis, a root cause was identified that, if eliminated, would have prevented the accident.

**Root Cause:** The victim slipped and fell to the ground while ascending the truck's access ladder.

<u>Corrective Action:</u> The operator developed and implemented a program of "Best Practices" to train equipment operators in safe access and maintaining "Three Points of Contact" when mounting or dismounting mobile equipment. All equipment operators were trained in these Best Practices.

#### **CONCLUSION**

On December 14, 2012, a 52-year-old rock truck driver was injured and later died at a local hospital after slipping and falling from the access ladder of a Komatsu HD 785 rock truck.

Approved by:

Richard A. Gates

District Manager

Date

#### **ENFORCEMENT ACTIONS**

An accident occurred at this mine when an operator slipped and fell while ascending the access ladder of a Komatsu HD 785 rock truck.

103(k) Order, No. 8525530 was issued to Taft Coal Sales & Associates, Inc., Choctaw Mine on December 28, 2012, to prevent the destruction of any evidence that would assist in investigating the cause or causes of the accident, and to ensure the health and safety of persons who are employed at this mine until an investigation of the accident can be completed.

## APPENDIX A

# Persons providing information and/or present during the investigation

# Taft Coal Sales & Associates, Inc., Choctaw Mine

Dale Byrum	Vice President of Health and Safety
Ron Wooten	.Vice President of Safety and Government Affairs
David Peters	.Mine Superintendent
Steve Dickerson	Human Resources
Chad Waldrop	Safety Supervisor
Jimmy Swafford	Master Mechanic of Mobile Equipment
Nixon Hill	.Day Shift Pit Foreman
Danny Tubbs	.Evening Shift Pit Foreman
Stanley Bolton	.Evening Shift Pit Foreman
Steve Wise	Contract Coal Truck Driver
Mark Palmer	.Mine Electrician
Tim Bickerton	Equipment Operator
Michael Wooten	Multiple Equipment Operator
Don Hancock	Equipment Operator
Michael Hunt	Multiple Equipment Operator

# Mine Safety and Health Administration

William Dean Harbin......Inspector/Investigator

# APPENDIX B VICTIM INFORMATION

Accident Investigation Data - Victim Information Event Number: 4 4 9 6 0 6 3							U.S. Department of Labor								
							Mine Safety and Health Administration								
Victim Information:	1							8-32	964000000			-014.V			
1. Name of Injured/III Emp	ployee:	2. Sex 3. Victim's Ag		Age 4. Degree of Injury:											
John F. Key		M	52		01 Fal	tal									
5. Date(MM/DD/YY) and a. Date: 12/28/2013			i L			6, Dal		ne Started: :: 12/14/201	2 b.Time:	14:50					
				tivity when Injured: ing on Rock Truck					9. Was this work activity part of regular job?  Yes   X   No						
10. Experience Years a. This Work Activity: 10	Weeks	Days 2	b. Regular Job Title:	Years	Weeks 24	Days 2	c: This Mine:	Years 10	Weeks	Days 2	d. Total Mining:	Years	Weeks	Days	
11. What Directly Inflicted 076 Ledder on i		17					12. Natur 220	re of Injury o					,		
13. Training Deficiencies: Hezerd;	New/Nev	vly-Employe	d Experien	ced Miner,	Ĭ			Annual:		Task:					
14. Company of Employm	ent. (If different	from produ	ction opera	tor)											