

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
February 25, 2008

CME Engineering LP (L814)
Latrobe, Pennsylvania

at

Nolo Mine
AMFIRE Mining Company LLC
Nolo, Indiana County, Pennsylvania
MSHA ID 36-08850

Accident Investigators

Robert E. Roland
Coal Mine Safety and Health Inspector

William Kibler
Coal Mine Safety and Health Inspector,
Electrical Specialist

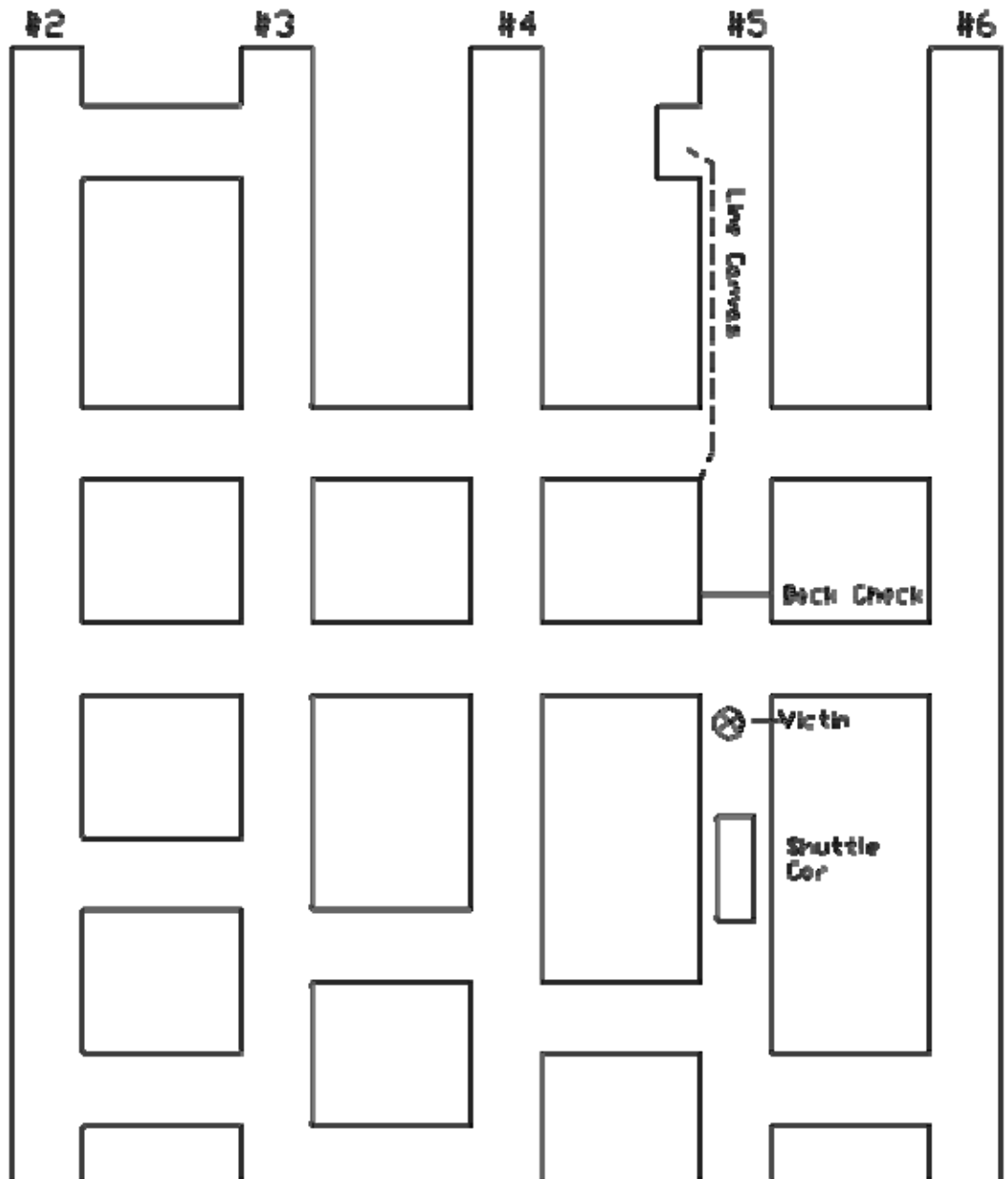
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**ACCIDENT SITE
NOLO MINE
2 RIGHT
SOUTH MAINS**

Not to scale



OVERVIEW

At approximately 11:00 a.m. on Monday, February 25, 2008, Bruce E. Makin, a 50-year old contract surveyor with 7 years 5 months of mining experience and 19 weeks as a surveyor, was fatally injured in a powered haulage accident. The accident occurred as the victim was locating a survey spad just outby a run-through check curtain at Amfire Mining Company's Nolo Mine. A shuttle car hauling coal from the face traveled through the check curtain and struck and ran over the victim while hauling coal to the belt feeder. The victim was discovered by the shuttle car operator while tramping the shuttle car back to the face area.

The accident occurred because management policy and procedures were inadequate and failed to ensure that direct communications were established and maintained between section workers and contract surveyors. The mining crew and surveyors were not fully aware of the intended activities of each other. The operator's policies and procedures were inadequate and failed to ensure the safety of all persons working in the same area.

GENERAL INFORMATION

The Nolo Mine, operated by Amfire Mining Company LLC, was located at 1127 Simons Rock Road, Penn Run, Indiana County, Pennsylvania. The victim was an employee of CME Engineering LP, contractor ID L814.

The mining operation utilized continuous mining machines with shuttle car haulage and produced coal from the Lower Kittanning seam. The average mining height was 48 inches. Total employment at the mine was 97 of which 89 were underground miners. The mine operated two production shifts and one maintenance shift on a five to six days per week schedule. Three continuous mining sections, two on advance and one on retreat, produced an average of 2,400 tons per day. A system of conveyor belts transported coal from the working sections to the surface where it was trucked to other locations for processing.

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

Peter V. Merritts.....	President
Gary O. Deemer	General Manager
Ricky D. Smith.....	Superintendent
George R. Bonneau.....	Mine Foreman

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on December 14, 2007. An inspection was started on January 2, 2008 and was ongoing at the time of the accident. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2007 was 6.04 compared to a National NFDL rate of 4.64.

CME Engineering LP (CME), located at One Energy Place, Suite 8000, Latrobe, Westmoreland County, Pennsylvania, was a mine surveying and engineering services contractor. Amfire Mining

Company contracted with CME for underground surveying and engineering services. The principal officers for CME at the time of the accident were:

Michael J. Walker.....Chairman and Executive Vice President
Sean Isgan.....President
Chuck Ishman.....General Manager
Brad Cole.....Project Manager/Safety Director

DESCRIPTION OF ACCIDENT

On the morning of February 25, 2008, Cody Noroski, transitman; Bruce Makin, chainman; and Sean Dennehy, transitman trainee, employees of CME entered the mine at 6:30 a.m. Their assignment was to repair a damaged sight spad in the belt entry in the North Mains, and also to advance the sights in the 2 Right active section in the South Mains. Noroski, Makin and Dennehy traveled to North Mains and reset the survey spad in the belt entry. They then traveled to South Mains.

The 2 Right South Mains crew entered the mine at 7:00 a.m. and arrived on the section at 7:30 a.m. After preoperational examinations of equipment and workplaces, section foreman Kevin Pollock gave instructions to the continuous miner operator, Bradley Emehizer, to start mining in the crosscut from No. 3 to No. 4 entries. Ron Wysocki, was operating the No. 28 shuttle car and Aaron Hansen operated the No. 27 shuttle car.

The loading crew finished the first cut in the crosscut from No. 3 to No. 4 and moved to mine the crosscut from No. 5 to No. 4. Meanwhile, the survey crew arrived on the South Mains section and started to advance the survey sights beginning in the No. 2 entry with the intention to work from left to right (No. 2 entry toward the No. 6 entry). In the process of advancing the sights in each entry, Noroski and Dennehy would set the transit up on the most inby set of sights and Makin would travel to the first set of sights outby to hang a plumb bob on the sight spad to enable Noroski to shoot a back sight before turning the transit and advancing the sights to the face of each entry. At approximately 10:30 a.m., Pollock spoke briefly with Noroski in the No. 4 entry and informed him where the continuous mining machine was loading and then Pollock continued on to examine the No. 3 entry workplace.

The production crew completed the second cut and moved into the No. 6 entry. David Martin, roof bolter helper, replaced Hansen as operator on No. 27 shuttle car. This allowed Hansen and David Shaffer, the other roof bolter operator and helper, to begin bolting the crosscut No. 5 to No. 4. Wysocki changed from No. 28 shuttle car to No. 55 shuttle car due to the fact that the trailing cable for No. 55 car was mounted on the right side and enabled this car to be operated on the right side of the section with less cable interference.

Meanwhile, the survey crew completed advancing the sights in entries 2, 3 and 4 and moved into No. 5 entry. As Noroski and Dennehy were setting up the transit at survey station No. 7088, Makin traveled 100 feet to a point just outby a run-through check curtain at survey station No. 7085 to prepare for the back sight. The No. 5 entry at this location is the haulage way for the No. 55 shuttle car to travel from the No. 6 working face to the belt dump point. At approximately

11:00 a.m., the No. 55 shuttle car was loaded for the third time while cutting in the No. 6 entry and proceeded through crosscut No. 6 to No. 5 and turned left into No. 5 entry. Wysocki sounded his warning bell and proceeded through the run-through check curtain and to the belt dump point. On his return trip to the face, Wysocki discovered the victim lying in the roadway and realized he had been run over by the shuttle car. Wysocki immediately called for help from the crew and all activity in the section was halted. It was determined by Pollock, an EMT, and those at the scene that CPR would be ineffective.

An MSHA inspector, underground at the time of the accident, along with mine management personnel were dispatched to the accident scene. Upon arrival at the mine Michael Baker, Indiana County Coroner, traveled underground to the accident site and pronounced the victim dead at 2:30 p.m... The victim was transported to the surface and then taken to Conemaugh Hospital by Citizens Ambulance Service.

INVESTIGATION OF THE ACCIDENT

MSHA was notified by call center at 11:20 a.m. on February 25, 2008, that a fatal accident had occurred at the Nolo Mine. An MSHA inspector was at the mine at the time of the accident and additional MSHA personnel were dispatched to the mine. A 103(k) order was issued to ensure the safety of all persons during the accident recovery and investigation. The accident investigation was conducted in cooperation with Pennsylvania Bureau of Deep Mine Safety, with assistance from the mine operator, the contractor and the employees. Thirteen persons were interviewed during the course of the investigation.

DISCUSSION

Mining Type and Equipment

The 2 Right South Mains section is an advancing section with five entries spaced on 60 foot centers utilizing various pillar lengths. The entries are numbered 2 through 6 left to right. The belt entry and loading point is located in the center entry or the No. 4 entry. The coal is mined with a Joy 14CMAA continuous mining machine and transported to a belt feeder located at the end of the section belt by three Joy 21SC shuttle cars which had all been rebuilt by Maxxim Rebuild Co. LLC. The three shuttle cars were identical including the controls with the exception of No. 55 shuttle car which had its cable reel mounted on the same side as the operator's cab. The No. 27 and No. 28 cars had the cable reels mounted on the opposite side from the operator's cab. The No. 55 shuttle car was equipped with a canopy and sideboards and the car measured ten feet in width. Two Fletcher Twin Boom Roof Drills are utilized to install roof bolts.

Physical Factors

The accident occurred at survey station No. 7085 in the No. 5 entry of 2 Right South Mains. A run-through check curtain was installed 30 inches in by survey station No. 7085. The check curtain was a heavy weight translucent plastic curtain, attached at the top to the mine roof by wire ties. The check curtain was used as a ventilation control to maintain the desired amount of ventilating air at the working faces. The check curtain was attached at the top only, so equipment can pass through without pulling the curtain down.

The mining height at survey station No. 7085 measured 57 inches and the width of the entry was 18 feet 2 inches. The area was dry with the exception of a pool of standing water 15 feet out by survey station No. 7085 measuring up to 3 inches in depth approximately 10 to 12 feet in diameter. Roof bolts were utilized for roof support and no obstructions were present in this area.

Training and Experience

Bruce E. Makin had a total of 7 years 5 months underground mining experience, of which 19 weeks were with CME. Prior mining experience included employment from November 1978 to January 1986 at an underground mining company as a general laborer and a machine operator. During this time Makin attained a Miner's Certificate of Qualification and a Machine Operators Certificate from the Commonwealth of Pennsylvania. Upon employment with CME, Makin was given Experienced Miner Training and Hazard Training as per the applicable MSHA approved training plans prior to starting underground surveying duties at Nolo Mine.

Ronald M. Wysocki had a total of 25 ½ years underground mining experience, of which 7 years were at Nolo Mine with 5 ½ years as a shuttle car operator. Wysocki possesses a Miner's Certificate of Qualification and a Machine Operators Certificate from the Commonwealth of Pennsylvania. Annual Refresher and Task Training were given as required by the applicable MSHA approved training plan.

Communication and Safe Task Coordination

The survey crew arrived on the section between 8:30 a.m. and 9:00 a.m. and made no contact with the section supervisor until approximately 10:30 a.m. when section foreman Pollock met surveyor Noroski in the No. 4 entry. Pollock spoke briefly with Noroski and informed him where the continuous mining machine was loading. Pollock then continued on to No. 3 entry. The only other report of communication between the section crew and the surveyors was in No. 5 entry where Noroski asked the roof bolters how long they would be in the No. 5 entry. The roof bolters answered that they would be there for awhile.

The four roof bolter operators knew that the surveyors were on the section because they had seen them, but did not know the details of their intended work activities. Shuttle car operator Wysocki stated that he knew the surveyors were on the section because someone had told him, but he did not know where they were working. The continuous mining machine operator did not know the surveyors were on the section. The scoop tractor operator knew the surveyors were on the section but did not know where they were working.

Neither the operator nor the contractor had written procedures or policies in place that would ensure that direct communication was made between the section crew and the survey crew to provide adequate information about work activities of each and coordinate such work activities to ensure the safety of both crews.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. During the analysis, causal factors were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are root causes identified during the analysis and their corresponding corrective actions implemented to prevent a recurrence of a similar accident:

1. *Root Cause:* The mine operator failed to establish a policy that ensured a direct line of communication in which details of the survey crew's activity and the projected mining activities within the working section were shared. This would ensure that activities could be coordinated in such a manner as to provide safety to all employees.

Corrective Action: The mine operator has developed policy and procedures addressing surveyor training, and training certification. Such training includes hazards associated with haulage travel ways, cable hazards, section ventilation, visual obstructions and communication.

CONCLUSION

The accident occurred because management policies and procedures were inadequate and failed to ensure that direct communications were established and maintained between section workers and contract surveyors. The mining crew and surveyors were not fully aware of the intended activities of each other. The operator's policies and procedures were inadequate and failed to ensure the safety of all persons working in the same area.

Approved By:


District Manager


Date

ENFORCEMENT ACTIONS

1. A 103(k) Order No. 7048341 was issued to Amfire Mining Company, LLC. Nolo Mine to ensure the safety of all persons in the South Mains MMU 002 working section until MSHA has determined that it is safe to resume normal mining operations in this area.
2. A 314(b) safeguard, No. 7054390 was issued in accordance with 30 CFR 75.1403. Adequate communications and work procedures were not in force at this mine to ensure the safety of miners working along shuttle car haulage way in the 2 Right South Mains, MMU 002 active section. A surveyor was working in the middle of the shuttle car haulage way when he was struck and run over resulting in fatal injuries. The shuttle car operator did not know that anyone was working along or in the shuttle car haulage way. The shuttle car transports material, i.e. coal, as well as the operator during its normal operation. The lack of policy and procedure for such work activity creates a hazard to any miner(s) working in or along active haulage ways. This is a Notice to Provide Safeguard requiring that when any miner(s) is/are required to work in or along a designated active haulage way, a distinct warning sign(s) and warning light(s) be placed not less than 50 feet in all approaches to the work area and the workmen assigned to do the work communicate their intended work activity and location to the section foreman (or the continuous miner operator if the foreman is not available) and equipment operator(s) using such haulage way. The warning signs shall be of reflective material and state, "STOP, men working in travelway, assure that all miners are in the clear before proceeding." This Notice to Provide Safeguard will apply to all areas of the mine where miners are required to work in or along active haulage ways.

**Appendix A
Persons Participating in the Investigation**

Listed below are persons furnishing information and/or were present during the investigation:

Company Officials

Peter Merritts..... President
Gary Deemer..... General Manager
Ricky Smith..... Superintendent
George Bonneau..... Mine Foreman
James Public..... Safety Director
Richard Kinter..... Assistant Safety Director
Kevin D. Pollock..... Section Foreman

Nolo Mine employees

Bradley E. Emehizer..... Continuous Miner Operator
David Q. Martin..... Roof Bolter Helper/Shuttle Car Operator
Timothy Bassaro..... Roof Bolter Operator
Leo S. Benard Jr..... Mechanic
David B. Shaffer..... Roof Bolter Helper
Bryan A. Boothman..... Scoop Tractor Operator
Aaron W. Hansen..... Roof Bolter Operator/Shuttle Car Operator
Sammuel A. Marra..... Mechanic
Ronald M. Wysocki..... Shuttle Car Operator
Paul Zamba..... Outby Floater

CME Officials

Michael Walker..... Chairman and Executive Vice President
Sean Isgan..... President
Chuck Ishman..... General Manager
Brad Cole..... Senior Project Manager/Safety Director

CME employees

Cody D. Noroski..... Surveyor (transitman)
Sean P. Dennehy..... Surveyor (transitman trainee)

Pennsylvania Department of Environmental Protection

Dennis Walker.....Bituminous Division Program Manager
Jeffry Kerch.....Underground Mine Inspection Supervisor
Robert Ceschini.....Electrical Inspection Supervisor
David Stalnaker.....District Inspector

Mine Safety and Health Administration

David Weakland.....Supervisory Coal Mine Safety and Health Inspector
Patrick Casey.....Coal Mine Safety and Health Inspector
Edward Tersine.....Coal Mine Safety and Health Inspector,
Ventilation Specialist
William Kibler.....Coal Mine Safety and Health Inspector,
Electrical Specialist
Robert Roland.....Coal Mine Safety and Health Inspector,
Accident Investigator

Attorneys

Vincent J. Barbera.....Counsel for CME
R. Henry Moore.....Counsel for Amfire Mining Co.