

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Stepping or Kneeling on Object Accident  
April 5, 2007

Mine 84  
Eighty Four Mining Company  
Washington, Washington County, Pennsylvania  
ID No. 36-00958

Accident Investigator

Carl F. Kubincanek  
Coal Mine Safety and Health Inspector

Originating Office  
Mine Safety and Health Administration  
District 2  
319 Paintersville Road  
Hunker, Pennsylvania 15639  
William Ponceroff, District Manager

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## OVERVIEW

At approximately 1:00 p.m. on Thursday, April 5, 2007, Russell F. Cecchine, a 50-year old continuous miner operator, with 27 years of mining experience, was injured in the 7B-8B cut-through entry. The accident occurred as he was walking behind the center roof-bolting machine to check for the slack cable needed to allow the machine to move forward. The victim slipped on the mine floor which caused him to twist his left ankle and fall to the floor. The initial injury was first believed to be a sprained left ankle but was later determined to be a simple fractured left fibula.

The victim was given first aid at the mine and transported to Canonsburg Hospital and treated. On April 11, 2007 a cast was put on the ankle. The victim died on April 28, 2007. The coroner concluded that the victim died as a result of pulmonary thromboembolus, due to deep vein thrombosis of the left leg due to blunt force trauma of the leg sustained as he fell at work on April 5, 2007.

## GENERAL INFORMATION

Mine 84, operated by the Eighty Four Mining Company, is located along Hallam Road in Washington, Washington County, Pennsylvania. The mine is a longwall operation producing bituminous coal from the Pittsburgh seam. Employment includes 462 underground miners, 44 miners at the preparation plant, and 22 miners in other positions. The mine works three production shifts, five to six days per week. Two continuous mining machine sections and two longwall sections produce an average of 17,000 tons of coal a day. A system of conveyor belts transports coal from working sections to the surface.

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

David Aloia.....	Superintendent
Wesley Mark Watkins.....	Mine Foreman
Lee Farrell.....	Continuous Miner Coordinator
James Manuel.....	Safety Director
Brad DeBusk.....	Safety Department

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on January 29, 2007. The non-fatal days lost (NFDL) injury incidence rate for the mine was 1.88 compared to the National NFDL rate of 4.37.

## DESCRIPTION OF THE ACCIDENT

On April 5, 2007, the day shift crew, assigned to the cut-through entries between 7B-8B, entered the mine at their regular scheduled starting time of 8:00 a.m. The crew went to the 7B section to work on the #1 and #2 entries to cut-through to 8B. Section foreman Bill Rhodes and Coordinator Lee Farrell were in the section.

The primary work assignment for the shift was installing roof bolts. Since coal was not being mined, Russell Cecchine (victim), who was normally the continuous mining machine operator, was assigned the task of roof bolting machine helper. The Fletcher single boom roof bolting machine located in the #1 entry, just inby the 4<sup>th</sup> crosscut was being used to install roof bolts in the center of the entry. Cecchine was helping Ken McDonough, roof bolter, install roof bolts. He was also observing the power cable and performing other miscellaneous duties.

Since the machine was a significant distance into the entry, the two miners pulled off all the slack power cable and put it on the mine bottom. The victim would go behind the machine whenever the roof bolting machine was trammed forward to make sure enough cable was available.

At approximately 1:00 p.m., Cecchine was walking behind the machine when he slipped and fell to the mine floor. He later stated, "I slipped on the mine bottom causing me to twist my left ankle." He also told the other miners that he stepped on a small rock (saucer dish size) in the area where he fell. The victim was wearing rubber boots and the mine floor in that entry was wet but mainly solid with some tire track ruts.

The victim remained on the mine floor and called out to McDonough for help. Farrell, an emergency medical technician, was just inby the location and quickly responded. Farrell wanted to cut the boot off but Cecchine told him to just take it off. Farrell, McDonough, and Rhodes saw no bleeding, swelling, or discoloration. However, there was a small knot on his left ankle. The miners immobilized the ankle, carried Cecchine on a stretcher to a man-trip car on the 7B section and transported him to the surface. The victim mentioned a few times to the miners that the small rock lying on the mine floor caused him to lose his balance and fall.

The victim was transported to the Canonsburg Hospital Emergency Room by Brad DeBusk, Mine 84 Safety Inspector, where a fracture was discovered on the left ankle. He was put into a soft cast and scheduled to be seen by an orthopedic doctor on Tuesday, April 11, 2007. On April 11, 2007, the victim received a hard

cast. While at the hospital, Cecchine was interviewed by DeBusk. Later, a mine accident report was completed and signed by Cecchine.

Cecchine developed severe medical complications on Saturday, April 28, 2007. He was rushed to the emergency room at Monongahela Valley Hospital and died at approximately 3:50 p.m. The coroner identified the immediate cause of death as pulmonary thromboembolism, due to deep vein thrombosis of the left leg, as a result of blunt force trauma of the left leg.

### **INVESTIGATION OF THE ACCIDENT**

The accident was not immediately reported to MSHA, as it was initially believed to be a sprained ankle. Mine officials completed a Report of Investigation, on April 5, 2007. After becoming aware of the simple fracture, James Manuel, Mine 84 Manager of Safety, submitted a Mine Accident, Injury and Illness Report (7000-1) on April 14, 2007. The victim died on April 28, 2007, and a second 7000-1 was forwarded on May 1, 2007, which declared him terminated from employment. Mine officials were not aware that the cause of death was identified as the April 5, 2007 accident.

MSHA, after being informed of the death, initiated an investigation of the accident on May 7, 2007. MSHA conducted a physical inspection of the accident site on May 8, 2007. The actual accident scene had changed since the date of the accident. Since the accident was considered minor at the time, the original accident scene had not been preserved and a 103(k) order was not issued. See sketch of accident site, Appendix B. Documents, work procedures, training records, and medical treatment relevant to the accident were reviewed.

MSHA conducted the investigation with the assistance of the mine employees, Pennsylvania Bureau of Deep Mine Safety, Representative of the Miners' and Mine Safety Representatives. Four persons were interviewed during the course of the investigation. MSHA reviewed the death certificate on May 15, 2007, and the autopsy report on May 21, 2007. The documents indicated that the victim, died as a result of pulmonary thromboembolus due to deep vein thrombosis of the left leg, caused by blunt force trauma of the leg sustained as he fell at work on April 5, 2007.

### **DISCUSSION**

The cut-throughs were being driven to allow the 8B longwall panel to be moved around a rock intrusion. This technique was also used in the 7B longwall panel to avoid cutting through the rock. The mining was conducted by a full face

continuous mining machine and quickly followed by supplemental bolting. The area was well bolted and the site was in an abnormally high area. Supplemental bolting was required in this type of roof which is what the miners were doing at the time.

Training records were reviewed and found to be in compliance. The mine is typically wet, and slippery walking conditions can exist.

### 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, a root cause was identified that, if eliminated, would have either prevented the accident or mitigated its consequences. The corresponding corrective action was implemented to prevent recurrence of the accident.

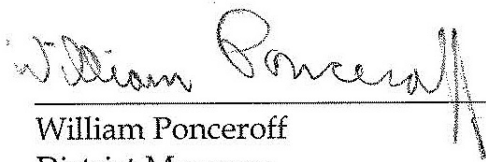
Root Cause: Historically, the mine floor can be wet which results in slippery walking conditions. This particular entry was wet and slippery with firm bottom conditions. Sloughage of the roof and ribs was normal in the area.

Corrective Action: Mine management developed a program to conduct thorough visual examinations of work areas prior to performing any work and thereafter as conditions change. Also, obstructions that may cause slipping and tripping hazards will be removed. Management instructed miners to be aware of footing and surrounding areas while walking.

### CONCLUSION

The accident occurred as a result of Cecchine stepping on a small rock in a slippery area of the mine floor. The accident resulted in a fracture of the left fibula and the eventual medical complications resulted in his death 23 days later.

APPROVED BY:

  
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William Ponceroff  
District Manager

Date: 10/4/07

**APPENDIX A**

**People who provided information and/or participated in the investigation:**

Eighty Four Mining Company

David Aloia	Mine Superintendent
James Manuel	Safety Director
Brad DeBusk	Safety Inspector
Lee Farrell	Continuous Miner Coordinator (EMT)
Ken McDonough	Roof Bolter Operator
William Rhoades	Foreman

Pennsylvania Department of Environmental Protection

Robert Frantz	Mine Inspector
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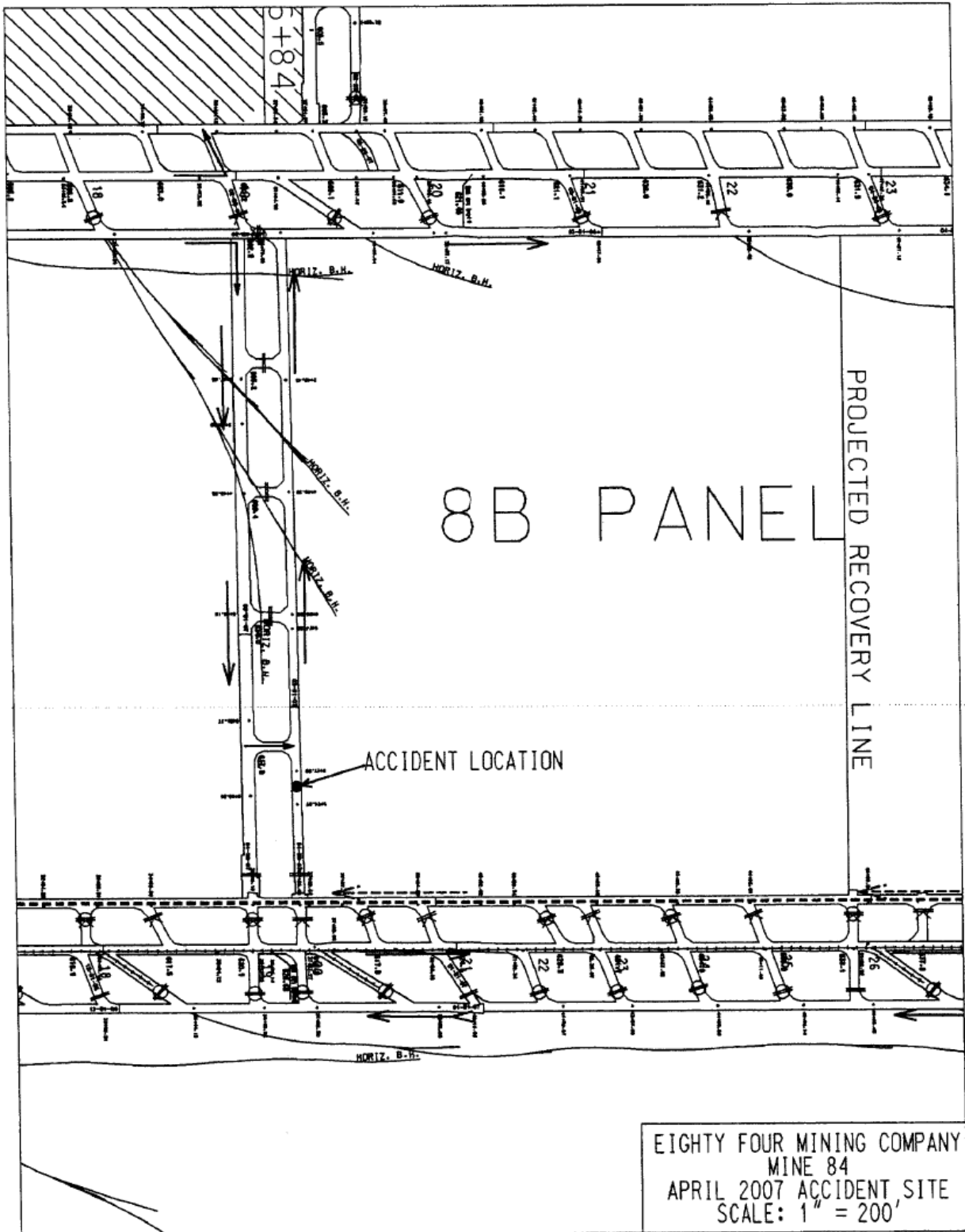
Mine Safety and Health Administration

Carl F. Kubincanek	Coal Mine Safety and Health Inspector
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Representative of Miners

Joseph Marcinek	UMWA
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# Appendix B Accident Sit Map





## Appendix C

### Victim Information (MSHA Form 7000-50b)

Accident Investigation Data - Victim Information

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



Event Number: 4 0 1 4 5 9 4

**Victim Information: 1**

1. Name of Injured/Ill Employee: <i>Russell Cecchine</i>			2. Sex: <i>M</i>	3. Victim's Age: <i>50</i>		4. Last Four Digits of SSN: <i>8450</i>			5. Degree of Injury: <i>01 Fatal</i>								
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 04/28/2007 b. Time: 15:50</i>						7. Date and Time Started: <i>a. Date: 04/05/2007 b. Time: 1:00</i>											
8. Regular Job Title: <i>036 Continuous miner operator</i>				9. Work Activity when Injured: <i>090 Travel (to/from work locatn-not mantrip)</i>				10. Was this work activity part of regular job? Yes No <input checked="" type="checkbox"/>									
11. Experience			b. Regular			c. This			d. Total								
a. This			Job Title:			Mine:			Mining:								
Years	Weeks	Days	Years	Weeks	Days	Years	Weeks	Days	Years	Weeks	Days						
<i>0</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>0</i>	<i>27</i>	<i>0</i>	<i>0</i>	<i>27</i>	<i>0</i>	<i>0</i>						
12. What Directly Inflicted Injury or Illness? <i>123 Mine floor, bottom, footwall</i>						13. Nature of Injury or Illness: <i>220 Fracture, (FX), chip</i>											
14. Training Deficiencies:																	
Hazard:			New/Newly-Employed Experienced Miner:			Annual:			Task:								
15. Company of Employment: (If different from production operator) <i>Operator</i>						Independent Contractor ID: (if applicable)											
16. On-site Emergency Medical Treatment:																	
Not Applicable:			First-Aid:			CPR:			EMT: <input checked="" type="checkbox"/>			Medical Professional:			None:		
17. Part 50 Document Control Number: (form 7000-1)						18. Union Affiliation of Victim: <i>2555 United Mine Workers of Amer.</i>											