# 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 July 31, 2012

Beckley Pocahontas Mine ICG Beckley LLC Eccles, Raleigh County, West Virginia ID No. 46-05252

**Accident Investigators** 

Richard A. Hayhurst Coal Mine Safety and Health Inspector

William Bane Coal Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 4
100 Bluestone Road
Mt. Hope, West Virginia 25880
Charles E. Carpenter, District Manager

## TABLE OF CONTENTS

OVERVIEW	1
GENERAL INFORMATION	1
DESCRIPTION OF ACCIDENT	2
INVESTIGATION OF ACCIDENT	4
DISCUSSION	4
Experience and Training	4
Equipment	5
Accident Scene and Preservation of Evidence	5
Immediate Notification	6
ROOT CAUSE ANALYSIS	7
CONCLUSION	8
ENFORCEMENT ACTIONS	9
APPENDIX A - Persons Participating in the Investigation	10
APPENDIX B - List of ICG Beckley, LLC, Employees Interviewed	11
APPENDIX C - Victim Information	12
APPENDIX D - Sketch of Accident Scene	13



#### **OVERVIEW**

On Tuesday, July 31, 2012, at approximately 12:45 p.m., a 43-year-old scoop operator, with five years of mining experience, was killed at the Beckley Pocahontas Mine. Gregory A. Byers received crushing injuries when he was caught between the coal rib and a battery-powered scoop that he was operating. The victim was attempting to change the scoop's batteries at a battery charging station, located four crosscuts outby the No. 2 Section. The accident occurred when another scoop, traveling in an outby direction in the adjacent No. 3 roadway entry, impacted and moved the scoop with Byers, pinning the victim between the scoop's canopy and the coal rib.

#### **GENERAL INFORMATION**

The Beckley Pocahontas Mine, ICG Beckley LLC, is located near Eccles in Raleigh County, West Virginia. The mine operates in the Pocahontas No. 3 coal seam which averages 48 to 52 inches in thickness and is accessed by two shafts and one slope. The mine operates three mining sections, utilizing the room and pillar method of mining. The active workings of the No. 2 Section had been developed approximately 15,000 feet from the elevator shaft bottom. Each mining section had eight entries, which were mined with continuous mining machines. The coal is transported from the working faces by shuttle cars, and then transported to the surface via a conveyor belt system. The mine employed 285 people at the time of the accident. Of these employees, 246 worked underground and 39 worked on the surface. The mine produces an average of

7,000 raw tons of coal per day. There were two production shifts and one maintenance shift in a 24 hour period.

This mine liberates 4.4 million cubic feet of methane in a 24 hour period, and is on a 5-day 103(i) spot inspection schedule for excessive methane.

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

Joe Tussey	President
	Vice President
Donnie Crum	Superintendent/Mine Foreman
Steve Toler	Safety Director

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on June 28, 2012. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2011 was 3.23, compared to a National NFDL rate of 3.36 for underground mines.

#### **DESCRIPTION OF ACCIDENT**

The pre-shift examination of the No. 2 Section for the day shift production crew was conducted by the midnight shift on Tuesday, July 31, 2012. The examination record indicated the No. 1 and No. 6 entries were not bolted, the No. 4, 5, and 8 entries needed to be cleaned and dusted, and no hazards were reported for entries 2, 3, and 7. The examination report was phoned outside to John Morefield, Day Shift Section Foreman, by James Farnsworth, Pre-shift Examiner, at 5:45 a.m. The report indicated the examination took place between 4:00 a.m. and 4:40 a.m.

Prior to going underground, a brief safety meeting was held and Donnie Crum was introduced as the new general mine foreman. The crew entered the mine at 6:24 a.m., and traveled to the No. 2 Section. Upon arrival on the No. 2 Section, Jonathan Morefield, Section Foreman, discussed portions of the Ventilation Plan and the Roof Control Plan with the crew, and then conducted an imminent danger run of the section prior to producing coal. The crew went to their respective pieces of equipment while waiting for Morefield to complete his examination.

Byers was performing his daily routine of checking roof bolting supplies, cleaning and rock dusting the face areas, and picking up trash on the section. Morefield then instructed Byers to change the batteries on the No. 8 Fairchild scoop. The mine communication and tracking system indicates that Byers was in the No. 3 face at approximately 12:40 p.m., and at 12:45 p.m. he arrived at or near the No. 8 scoop charging station.

David Thompson, Scoop Operator for the outby support crew, was operating the No. 11 Fairchild scoop. He had just completed rock dusting the left return aircourse of No. 2 Section and was traveling off the section to retrieve additional rock dust. As he was traveling through temporary ventilation controls (curtains), located in the number 3 entry near the section dumping point, Thompson raised the scoop's batteries to prevent a curtain from being torn down. He then continued to tram outby the section in the No. 3 entry roadway. Thompson was tramming the No. 11 scoop in reverse (battery end first) as he approached the No. 8 scoop battery charging station. The charging station was located in a crosscut off of the No. 3 entry. The No. 3 entry roadway was slightly up-grade, toward the battery charging station, and traveling in a reverse direction with the batteries raised made it more difficult to see the No. 8 scoop.

At approximately 12:48 p.m., Thompson approached the scoop charging station and observed what he thought was the center section of the No. 8 scoop. Thompson stated he was approximately 45 feet (½ of a crosscut distance) from the charging station and he did not see Byers or the scoop bucket extended out into the No. 3 entry roadway. Thompson attempted to steer his scoop away from the parked scoop, but impacted and pushed the No. 8 scoop. Thompson immediately stopped his machine and upon seeing Byers, attempted to communicate with him, but did not get a response. Thompson realized that Byers was pinned between the scoop canopy and the coal rib. Thompson moved his scoop out of the way and ran back to assess the condition of Byers. Byers was not moving or talking. Thompson immediately called the No. 2 Section for help and proceeded to free Byers from being pinned. Thompson plugged the battery cables into the parked scoop, energized the machine while standing outside the operator's compartment, and put downward pressure on the scoop bucket and steered the machine. This motion allowed the center section of the scoop to pivot away from the coal rib, freeing Byers. Upon being freed, Byers collapsed. Thompson caught Byers and leaned him onto the side of the scoop.

Morefield and Brian Farley, Section Electrician, then arrived at the accident scene at approximately 1:00 pm. Morefield called for the section's Emergency Medical Technicians (EMTs) and supplies to be brought to the accident scene, and reported the accident by phone to Elmer Billups, Surface Dispatcher, at approximately 1:05 p.m. Farley assisted Thompson in moving Byers over to the No. 3 entry roadway. At some point Byers revived, and after Byers was moved to the roadway, he complained that he could not breathe. Then Byers collapsed again. Thompson, an EMT, stabilized Byers and instructed Farley to treat Byers for shock. At this time, Yubrenal Isabelle, Roy Smith, Rodney Smith, Jonah Clark, and Jeff Varney, all EMTs from the section, arrived with first aid equipment and provided assistance. Isabelle assessed Byers' condition and administered oxygen because Byers was having difficulty breathing. Byers was placed on a stretcher and at approximately 1:10 p.m., as indicated by the mine tracking system, transported to the shaft bottom on a diesel rubber-tired personnel carrier. He was transported via mine elevator and arrived on the surface at approximately 1:39 p.m., where Jan-Care Ambulance personnel were waiting and transported Byers to

Raleigh General Hospital in Beckley, West Virginia. The victim was then transported via life flight helicopter to Charleston Area Medical Center. Byers was pronounced dead at 6:15 pm.

#### INVESTIGATION OF THE ACCIDENT

Eli Combs, Safety Technician, notified MSHA of the accident at 1:50 p.m., on Tuesday, July 31, 2012, via a telephone call to the MSHA notification hotline. The call to the MSHA hotline occurred 45 minutes after notification of the accident was provided to the mine dispatcher. Lincoln Selfe, Assistant District Manager, immediately attempted to call the mine and the mine phone was busy. Multiple attempts were made before the mine phone was answered. A verbal 103(j) Order was issued promptly to Steve Toler, Safety Director, at 2:11 p.m. The affected area of the order was the No. 2 Section. Mine Safety and Health Inspector and Accident Investigator, William Bane, was dispatched to the mine.

Upon arrival at the mine site, Bane met with Toler and modified the 103(j) Order to a 103(k) Order to ensure the safety of all persons during the accident investigation and to preserve all evidence at the accident scene.

The investigation was conducted in cooperation with the West Virginia Office of Miners' Health, Safety, and Training (WVOMHST), with the assistance of the operator and their employees. Persons with knowledge of the accident and those that participated in the investigation are listed in Appendix A of this report.

Representatives of MSHA, WVOMHST, and company officials traveled underground to the accident site. Photographs, sketches, and relevant measurements were taken at the accident site and a survey was conducted of the accident scene. Preliminary written statements were obtained from persons having knowledge of the facts and circumstances concerning the accident. Formal interviews with persons considered to have knowledge of the accident were conducted on August 8 and 9, 2012, at the office of WVOMHST in Oak Hill, West Virginia, and again on August 16, 2012, at the office of ICG Beckley, LLC.

#### **DISCUSSION**

#### **Experience and Training**

Byers had approximately five years mining experience. A review of training records revealed that he had multiple mining certifications from West Virginia, Kentucky, and Alabama. Byers received his West Virginia Underground Miner's Certificate on February 3, 2011, as verified by the database maintained by the State of West Virginia. He was hired by ICG Beckley, LLC, to work at the Beckley Pocahontas Mine on June 28, 2011.

A review of the training records indicated Byers received experienced miner training for ICG Beckley Pocahontas Mine, on June 28, 2011, by Eli Combs, Safety Technician. Additionally, Byers received task training on July 18, 2011, from David Thompson, for the Fairchild Scoop that Byers was operating at the time of the accident. Byers also received annual refresher training on September 12, 2011. All the required training for Byers was found to be adequate and up-to-date.

David Thompson received task training on April 13, 2012, for the scoop he was operating at the time of the accident. All the required training for Thompson was reviewed and found to be adequate and up-to-date.

#### **Equipment**

The Company No. 8 Fairchild scoop, Model No. 35C-WHL, Serial No.T339-526 and the Company No.11 Fairchild scoop, Model No.35C-WH-AC, Serial No.T339-519, were inspected thoroughly with no equipment related failures or violations identified as contributing to the accident.

The No. 11 scoop operated by Thompson had bags of rock dust stacked up on the machine frame to an approximate height of 8 inches, which left an opening of 16 inches for Thompson to see through. The location and height of the rock dust obstructed Thompson's view when the machine was operated in reverse.

#### Accident Scene and Preservation of Evidence

The average mining height at the scene of the accident is approximately 72 inches. A slight down grade was evident from the scoop charging station, towards the working section in the No. 3 roadway entry.

It was apparent during the investigation that both scoops involved in the accident had been moved from the positions they were in at the time of the accident. The scoops were moved prior to MSHA notification, and therefore, prior to the initiation of the investigation. The No. 11 Fairchild scoop was moved from the intersection in the No. 3 entry, located at the No. 8 scoop charging station, to the No. 3 to 4 crosscut in order to allow for transport of the victim to the surface. The No. 8 Fairchild scoop, operated by Byers, was originally positioned along the outby rib in the No. 2 to 3 crosscut while in the process of changing the batteries.

As Byers was being transported to the surface, Morefield directed Thompson to finish changing the batteries on the No. 8 scoop. Thompson placed the discharged batteries on the mine floor along the outby rib in the No. 2 to 3 crosscut and moved the scoop to the inby rib. Thompson then installed the charged batteries and parked the scoop at this location. The movement of the scoop prior to the investigation made it difficult to

determine the exact position of the machine at the time of the accident. This is a violation of 30 CFR § 50.12. Accordingly, a citation non-contributory to the accident was issued for altering the accident scene.

A reenactment of the accident was conducted on August 1, 2012, with representatives of MSHA, WVOMHST, and the mine operator, to determine the positions of both scoops and any contributing factors associated with the accident. The reenactment determined that the configuration of the battery charging station and the extraneous material that was stacked on the frames of the machines were contributing factors in the accident. The scoop battery charger was installed in a manner that allowed the bucket of the scoop to extend 7 feet into the adjacent entry while batteries were being changed. In addition, rock dust, stacked 8 inches high on the frame of the No.11 scoop, impaired the scoop operator's visibility during operation the machine in reverse. A drawing was made showing the location and position of both scoops after the reenactment and is included in Appendix D of this report.

#### **Immediate Notification**

Combs notified MSHA the day of the accident by calling the MSHA notification hotline at 1:50 p.m. Jan Care Ambulance service received a call from the mine at 1:01 p.m., approximately 49 minutes prior to MSHA notification. The ambulance arrived at the mine at 1:14 p.m., and began transporting the victim at 1:41 p.m. The MSHA hotline was called 45 minutes after the dispatcher at the mine was notified at 1:05 p.m. The nature of the injuries and the fact that the victim lost consciousness should have caused mine management to know that the injuries were potentially life threatening, and therefore, the accident was required to be immediately reported to MSHA in accordance with 30 CFR, § 50.10(b). Accordingly, a non-contributory citation was issued for failing to report this accident at once, without delay, and within 15 minutes.

#### **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, root causes 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 the accident:

*Root cause*: Mine management allowed the scoop battery charging station to be installed in a manner that permitted the scoop bucket to extend into the section roadway while changing batteries.

Corrective action: All battery charging stations at this mine, which are installed in crosscuts off of travelways or roadways, are now configured such that sufficient space is available to prevent any part of the machine or equipment from extending into the adjacent roadway or travelway. MSHA required stoppings and battery charging stations to be relocated physically to address this hazard.

Root cause: The No. 11 scoop had bags of rock dust stacked up on the machine frame (up to 8 inches in height) in the area behind the operator's deck, which prevented the scoop operator from having an unobstructed view while tramming the machine in reverse. The viewing area (opening) of the scoop canopy was 16 inches from the machine frame to the top of the canopy.

Corrective action: This scoop and all other mobile equipment operating at this mine will be maintained such that supplies or other extraneous material be positioned or located on the machines in such a manner that it does not obstruct the operator's visibility from the machine operator's compartment while operating the machine. The mine operator was issued a notice to provide safeguard to eliminate this hazard.

#### CONCLUSION

The accident occurred because mine management allowed the battery charging station for the No. 8 scoop to be installed in a manner that did not provide sufficient space to prevent the bucket of the scoop from extending out into the section's roadway entry while it was parked in the crosscut for charging. Additionally, the No. 11 scoop, which impacted the No. 8 scoop at the battery charging station, had bags of rock dust stacked on the machine's frame, behind the operator's compartment, which obscured the scoop operator's view while he was tramming the machine in reverse. The canopy viewing area (opening) was 16 inches; however, the viewing area was reduced by 8 inches with the presence of the bags of rock dust.

1-14-13

Date

Approved By:

Charles E. Carpenter

District Manager

Coal Mine Safety and Health, District 4

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#### **ENFORCEMENT ACTIONS**

- 1. A 103(j) Order No. 8150990 was issued verbally to ICG Beckley LLC, on July 31, 2012, to prevent the destruction of any evidence which would assist in investigating the cause or causes of the accident. It was then modified to a 103(k) Order, to ensure the safety of all persons at the mine until an investigation of the accident could be completed.
- 2. A 314(b) Safeguard No. 8139320 was issued to ICG Beckley LLC, on August 01, 2012. Due to the configuration and location of the scoop charging station, the bucket of the parked scoop projected out into the entry (No. 3) or roadway for a distance of approximately (7) feet. This is a notice to provide safeguard(s) that this battery charging station and all other battery charging stations at this mine, which are established and located in crosscuts adjacent to travelways or roadways, be configured such that sufficient space is available to prevent any part of the machine or equipment from projecting into the adjacent roadway or travelway.
- 3. A 314(b) Safeguard No. 7224716 was issued to ICG Beckley LLC, on August 01, 2012. The scoop traveling in the No. 3 entry had bags of rock dust stacked up on the machine frame (up to 8" in height) in the area behind the operator's deck, which contributed to obscuring the view while tramming the machine. This is a notice to provide safeguard(s) that this scoop and all other mobile equipment operating at this mine be maintained such that supplies or other extraneous material be positioned or located on the machine in such a manner that it does not obstruct the operator's visibility from the operator's compartment while operating the machine.

## APPENDIX A

## Persons Participating in the Investigation

## ICG Beckley LLC

Donnie Crum Steve Toler Eli Combs Earl Roles James Eastridge	Safety Director Safety Technician Maintenance Foreman Maintenance Foreman			
West Virginia Office of Miner	s Health, Safety and Training			
C.A. Phillips	Director			
McKennis Browning				
Steve Lafferty	Assistant Inspector-at-Large			
John Cruse	Engineer			
James Griffin	Diesel Inspector			
Bobby Harper				
Jerry Pauley				
Robert Hall	District Inspector			
Mine Safety and Health Administration				
Charles Carpenter	District Manager			
Richard Hayhurst				
William Bane				
Mike BrowningMine	Safety and Health Specialist (Training EFS)			
Robert Hatfield				
Harold Jeffery				
Daris Lee Barker				
Keith Stone	Inspector/Ventilation Specialist			

## APPENDIX B

## List of ICG Beckley, LLC, Employees Interviewed

David Thompson	Scoop Operator
Jonathan Morefield	
Brain Farley	Electrician
Roy Smith	Assistant Section Foreman
Jonah Clark	Shuttle Car Operator
Jeff Varney	Safety Department
Rodney Smith	Shift Foreman
Yubrenal Isabelle	Shuttle Car Operator
Steve Toler	Safety Manager
Eli Combs	Safety Technician
Elmer Billups	Dispatcher
Jeremy Mitchem	Shuttle Car Operator
Gene Daniels	Continuous Miner Operator
Tom Higgins	Roof Bolter Operator
Jake Bratcher	Shuttle Car Operator
Jerry Lambert	Roof Bolter Operator
Rich Allen	Survey Crew
Will Justice	Survey Crew
James Claypool	Supply Man
Pete Brooks	Compliance Officer
Michael Haney	Roof Bolter Operator
Donnie Crum	General Mine Foreman

## APPENDIX C Victim Information

Accident Investigation Data - Victim Information Event Number: 6 2 9 4 5 8 0	U.S. Department of Labor  Mine Safety and Health Administration
Victim Information: 1	
Name of Injured/III Employee:     2. Sex    3. Victim's Age    4. Degree of Injury:	
Greg A. Byers M 43 01 Falal	100
b. Date(MM/DD/YY) and Time(24 Hr.) Of Death: 6. Date an	d Time Started:
a. Date: 07/31/2012 b. Time: 18:15 a.	Date: 07/31/2012 b.Time: 6:00
7. Regular Job Title: 8. Work Activity when Injured:	Was this work activity part of regular job?
028 Scoop Operator 023 Changing scoop batteries	Yes X No
10. Experience Years Weeks Days Years Weeks Days	Years Weeks Days Years Weeks Days
a. This b. Regular c:	This d. Total
	ine: 1 4 6 Mining: 5 32 2
11. What Breedy himoted injury or miroso?	Nature of Injury or Illness:
077 Scoop	70 Crushing injuries to the chest area
13. Training Deficiencies:	Annual:   Task:
Hazard: New/Newly-Employed Experienced Miner:	Alfillat. Task.
<ol> <li>Company of Employment: (If different from production operator)</li> <li>Operator</li> </ol>	Independent Contractor ID: (if applicable)
15, On-site Emergency Medical Treatment:	
Not Applicable:   First-Aid: X   CPR:   EMT: X	Medical Professional: None:
16. Part 50 Document Control Number: (form 7000-1) 17. Union A	ffiliation of Victim: 9999 None (No Union Affiliation)
Victim Information:	
Name of Injured/III Employee:     2. Sex    3. Victim's Age    4. Degree of Injury:	
	and Time Started:
7. Regular Job Title: 8. Work Activity when Injured:	9. Was this work activity part of regular job?
	Yes No
10. Experience: Years Weeks Days a. This  Work Activity: Job Title:	c: This Years Week Days d. Total Years Weeks Days Mine: Mining:
	Nature of Injury or Illness;
, , ,	
13. Training Deficiencies:	
New/Newly-Employed Experienced Miner:	Annual: Task:
14. Company of Employment: (If different from production operator)	
, , , , , , , , , , , , , , , , , , , ,	Independent Contractor ID: (if applicable)
15. On-sile Emergency Medical Treatment:	
Not Applicable: First-Aid: CPR: EMT:	Medical Professional: None:
	ifiliation of Victim:
Victim Information:	
Name of injured/III Employee:     2. Sex    3. Victim's Age    4. Degree of Injury:	
	and Time Started:
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death:  6. Date	and time Started.
7. Regular Job Title: 8. Work Activity when Injured:	9. Was this work activity part of regular job?  Yes   No
10. Experience: Years Weeks Days Years Weeks Days	Years Week Days Years Weeks Days
a. This Years Weeks Days Years Weeks Days  a. This	c: This d. Total
Work Activity: Job Title:	Mine: Mining:
11. What Directly Inflicted Injury or Illness?	2. Nature of Injury or Illness:
13. Training Deficiencies:	Annual:     Task:
Hazard: New/Newly-Employed Experienced Miner:	Annual: Task:
14. Company of Employment: (If different from production operator)	Independent Contractor IO: (if applicable)
15. On-sile Emergency Medical Treatment:	
Not Applicable: First-Aid: CPR: EMT:	Medical Professional: None:
	on Affiliation of Victim:
Value and the same of the same	
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APPENDIX D
Sketch of Accident Scene
Scale is Approximate

