CAI-2010-33

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Machinery Accident
April 22, 2010

ICG Beckley LLC
Beckley Pocahontas Mine
Eccles (Raleigh County) WV.
MSHA ID No. 46-05252

Martin Carver
Coal Mine Safety and Health Inspector

William Bane
Coal Mine Safety and Health Inspector

Robert Hatfield
Coal Mine Safety and Health Electrical

Originating Office
Mine Safety and Health Administration
District 4
100 Bluestone Road
Mount Hope, West Virginia, 25880
Robert G. Hardman, District Manager

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OVERVIEW

On Thursday, April 22, 2010, at approximately 11:15 p.m., a 28-year old continuous miner operator was operating a continuous mining machine. He sustained fatal injuries when he was crushed between the machine's conveyor boom and the coal rib. The victim was attempting to move the off standard continuous mining machine from the No. 6 Left coal face to the No. 8 Right coal face. As the mining machine was trammed, with the boom fully swung to the operator's side, the machine contacted the right coal rib with the cutter head and the boom contacted the victim positioned on the left rib, crushing his pelvic area.

The accident occurred because the victim was positioned in a hazardous area while mobile equipment was in motion.

GENERAL INFORMATION

The Beckley Pocahontas Mine is owned by International Coal Group, Inc. (ICG), and operated by ICG Beckley LLC, Eccles, Raleigh County, WV. The victim was an employee of Beckley Pocahontas Mine for two years and six weeks.

Bituminous coal is mined using room and pillar mining methods. The mine normally operates two production shifts per day, five days a week. The mine employs 223 persons with 15 working on the surface, 208 underground miners, and produces an average of 7,560 tons of raw material a day.

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

Gary Patterson	General Manager
Richie Henderson	Vice President
Tommy McClung	Superintendent
Jamie McClaugherty	Mine Foreman
Jeff Toler	Safety Director

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection (E01) on March 30, 2010. The Non-Fatal Days (NFDL) injury incidence rate for the mine in 2009 was 8.85, compared to the National NFDL rate of 3.89.

DESCRIPTION OF ACCIDENT

On Thursday, April 22, 2010, John King (victim) started the second shift at approximately 3:30 p.m. The coal crews, MMU 001 and 004, traveled to the mine floor by elevator and then to the No. 2 Section on rubber tired mantrips. Upon arrival on the section at approximately 4:00 p.m., Kevin Torres, Foreman, and Bruce Brown, Assistant Section Foreman, conducted on-shift examinations of the working faces. After completing the examinations, Torres had several conversations with different individual crews, including the bolt crew, hauler crew, and the continuous miner crew.

Brown came upon Torres talking to the bolt crew and he spoke with John King, discussing the mining cut cycle for the day. Brown instructed King to mine in the No. 5 Left entry and to ramp up to cut extra height for a future belt drive. This process took two hours and ten minutes to complete before moving to the next coal face.

King continued to mine coal from in the Nos. 6 Left, 8 Right, 5 Left and 6 Left faces. After he finished mining in the No. 6 Left Crosscut, King received instructions from Brown to move the off standard, continuous miner, to the No. 8 Left Crosscut. Brown was positioned in the No. 5 Left crosscut, where extra continuous miner cable was present, to watch and signal when the remaining machine cable slack was used. Lewis Eads, Hauler Operator, had walked to the No. 7 Entry and was rolling up check fly pads, preparing for the haulers to travel to and from the continuous miner. Alan Christian, Hauler Operator, was positioned between Brown and King, watching for Brown to signal with his cap light when the continuous miner was out of cable slack. Christian was also watching the cable behind the continuous miner with King.

With Christian watching, King used the remote control unit to move the continuous miner toward No. 8 Crosscut and looked back at Brown for a signal when Christian noticed the slack had stopped moving and heard King yelling for help. Christian immediately looked back at King and saw that the conveyor boom of the continuous miner had him pinned against the coal rib. King told Christian to get if off of him. At the same time, Eads had heard King yelling for help and ran to the continuous miner. Eads saw Christian trying to move King away from the boom when he noticed that the rope used for pulling slack cable and continuous miner cable had become entangled with King against the coal rib. Christian cut the rope, allowing King freedom of movement. Eads placed the remote control unit on the continuous miner boom and both men took King by his arms and laid him on his right side against the coal rib.

Christian instructed Eads to stay with King while he went to get help. Brown was notified by Christian that King had been injured by the continuous miner boom. Christian immediately went to the phone and notified the mine dispatcher that a man was hurt and they needed transportation. Christian went to the power center, obtained the first aid kit and returned to King's location.

Brown went for more help immediately after being notified of the accident. Kevin Torres, Section Foreman, and Ron King, Section Electrician/EMT, were at the feeder when Emery Perdue, Equipment Operator, who had heard about the accident, notified them of the accident, at approximately 11:11 p.m. Both men ran to the location where the victim was lying. Brown, Christian, and Eads were attending to John King's needs when both men arrived. Torres instructed several men, Corey Wills and Danny Brown, Roof Bolter Operators, to retrieve the first aid kits, a mantrip, and to go to a phone and call the dispatcher.

Ron King, Torres, and Wills, placed John King onto a backboard, administered oxygen, applied a C-collar, and loaded him onto a mantrip. The victim was accompanied to the surface by Torres, Ron King, and Wills attending to him

while David Lafferty and Doug Hampton operated the mantrip. Jan Care Ambulance Service arrived at 11:23 p.m., and waited for John King to be brought out of the mine. John King arrived on the surface at approximately 11:40 p.m. The ambulance left the mine site and arrived at Raleigh General Hospital at 11:59 p.m., April 22, 2010. He was then flown to Charleston Area Medical Center (CAMC) by Health Net. King received several surgeries before he died at 11:40 a.m., on April 23, 2010.

INVESTIGATION OF THE ACCIDENT

The Mine Safety and Health Administration (MSHA), was notified of the accident at approximately 11:46 p.m., on Thursday, April 22, 2010, when Jimmy McGee, Communication Person for ICG Beckley Pocahontas Mine, contacted the Call Center. The Call Center notified Luther Marrs, Assistant District Manager, Inspection Division 2. MSHA personnel from the Mount Hope Field Office were immediately dispatched to the mine. A 103(j) Order was issued by phone and modified to a 103(k) Order upon arrival at the mine, to ensure the safety of all persons during the accident investigation.

The investigation was conducted with the cooperation of the West Virginia Office of Miners' Health, Safety and Training (WVOMHST), the mine operator, and employees. The accident scene was photographed, sketched and surveyed. Interviews were conducted of persons considered to have knowledge of the facts concerning the accident. A list of the persons who participated in the investigation is contained in Appendix A. The victim's information is contained in Appendix B. A sketch of the accident scene is contained in Appendix C. The on-site portion of the investigation was completed and the 103(k) Order was terminated on April 26, 2010.

DISCUSSION

Training

John King's training records were examined and found to be up to date with no discrepancies. King was hired on March 6, 2008, as an experienced roof bolter operator at the ICG Beckley Pocahontas Mine. King operated the roof bolter machine until August 26, 2008, when he received task training for Joy 14CM15, off standard and standard continuous mining machines. King continued to operate a roof bolter, as well as continuous mining machines when needed. On or about February 1, 2010, Mr. King was assigned the duties as the off standard continuous mining machine operator on the No. 2 section, 004 MMU.

Accident Scene

The accident occurred in the connecting crosscut between the No. 7 and No. 8 Entries. Dimensions in the area of the accident measured 5 feet 1 inch in height and 17 feet 8 inches wide. The width of the continuous miner measured 11 feet 6 inches at the cutter head and 10 feet 9 inches at the back bumper. The crosscut was developed on 70 foot centers. The elevation in the crosscut increased 3 feet from No. 7 to No. 8 Entry, with the steepest grade approximately 17 feet from the No. 8 Entry, the approximate location of the continuous miner when the accident occurred.

At or near the end of the crosscut, towards No. 8 Entry, there was a set of fly pads and curtain hanging. The continuous miner was close to the right coal rib and may have contacted the coal rib in an effort to miss the curtain, which was hung on the inby side of the No. 8 Right Crosscut. The continuous miner had trammed through the fly pads for a distance of 7 feet 5 inches when the accident occurred. The boom of the continuous miner was swung to the operator's side in an attempt to keep the slack cable against the coal rib.

Equipment

The machine involved in the accident was the No. 3 Joy Continuous Mining Machine, Serial Number JM5993, Model 14CM15-11CCX, used to extract coal. The machine was examined by MSHA's Technical Support personnel, with no deficiencies found. Additionally, weekly electrical examination records were examined and no problems or hazards were identified. The operator uses two Joy 14CM15 continuous miners on the No. 2 section, ventilated with separate splits of air.

The continuous mining machines are moved using remote radio controls carried by the continuous miner operators. The remote unit being used on the No. 3 continuous miner was Serial Number 133310AJ003/F, Model TX3. The remote unit sends a signal to a receiver located on the continuous miner. The signal is then sent to a Jana System, (the computer system), which sends a demand to the correct solenoid to activate the desired machine function. The remote control unit was tested by MSHA's Technical Support personnel, with no deficiencies found.

Roof Control Plan

The mine's Approved Roof Control Plan in effect at the time of the accident contained provisions for Red Zone protection with regard to the continuous mining machine. Page 6 (Revised February 12, 2009), Item #11 of the plan's

General Safety Precautions required, "when any continuous mining machine is being trammed anywhere in the mine or changing places, other than when cutting coal, no persons shall be allowed along either side of the continuous mining machine."

ROOT CAUSE ANALYSIS

A root cause analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. Listed below are root causes identified during the analysis and the corresponding corrective actions implemented to prevent a recurrence of the accident

Root Cause: The victim was positioned in the Red Zone, an area of close clearance, while the continuous miner was being operated.

Corrective Actions: Re-training was conducted for all persons at the mine for Red Zone hazards related to continuous mining machines and for all mobile equipment while the equipment is in motion. Coaching and mentoring of less experienced miners by experienced miners will be stressed for Red Zone hazards.

Root Cause: The operator failed to have an effective policy in place to identify Red Zone hazards and to alert mine management when Red Zone violations are committed or observed by others.

Corrective Actions: The operator has revised and implemented new policies with regard to any miner being observed in the Red Zone. The revised policy applies to both rank and file miners and mine management personnel. The new Red Zone policy includes disciplinary actions for infractions of the policy to include:

1. All miners re-trained in Red Zones on continuous miners. This meeting will be recorded and considered a written warning.
2. Any Red Zone violation will result in a 3 day suspension.
3. A second violation of a Red Zone on a continuous miner by the same individual will result in a 5 day suspension, with potential discharge.
4. Management may, at its discretion, accelerate this process depending on the gravity of the Red Zone Violation.
5. Red Zones will be discussed in weekly safety meetings and a record of these meetings will be kept for a period of one year. This record will be made available to an authorized representative of the Office of Miners Health and Safety and Training upon request.

CONCLUSION

The accident occurred because the continuous miner operator was positioned in a hazardous location along side of a piece of mobile equipment while it was in motion.

Approved By:

Robert G. Hardman
District Manager
Coal Mine Safety and Health, District 4

8/26/2010
Date

ENFORCEMENT ACTIONS

1. A section 103(j) Order, No. 8097037, was issued to prevent the destruction of any evidence which would assist in investigating the accident. This 103(j) Order was modified to a 103(k) Order to protect the safety of all persons.

2. A 104(a) Citation, No. 8102631, was issued to Beckley Pocahontas Mine, ICG Beckley, LLC, for a violation of 30 CFR § 75.220(a)(1). The mine operator failed to comply with the approved roof control plan for the 004 MMU #2 Section, Page #6, Item 11. The continuous miner operator was along side of the continuous mining machine, Serial Number JM5993, while changing places from #6 Left face to #8 Right face, resulting in the operator receiving fatal injuries.

APPENDIX A
Persons Participating in the Investigation

ICG Beckley Pocahontas Coal Company

Tommy McClung ..... Superintendent
Kevin Torres ..... Mine Foreman
Jeff Toler ..... Safety Director
Richie Henderson ..... Vice President Operations
Gary Patterson ..... General Manager
Ronald Barr ..... Chief Electrician
Steve Toler ..... Safety Tech
Michael Cimino ..... Attorney
Shad Todd ..... Assistant Mine Foreman
Ron Price ..... Assistant Foreman, third shift
George Gibson ..... Assistant Foreman, third shift
Ronald King, Jr. ..... Chief Electrician, No. 2 section
Kevin Burnett ..... Chief Electrician, No. 2 Section, third shift
Lewis Eads ..... Hauler Operator
Bruce Brown ..... Assistant Foreman
Alan Christian ..... Hauler Operator
Danny Brown ..... Roofbolter Operator
Corey Wills ..... Roofbolter Operator
Rob Midlik ..... Scoop Operator
Richard Allen ..... Engineer
Josh Canady ..... Engineer

West Virginia Office of Miner's Health, Safety and Training

Steve Snyder ..... Inspector-at-Large
Randy Smith ..... Assistant Inspector-at- Large
Kendall Smith ..... Chief Electrical Inspector
C. A. Phillips ..... Deputy Director
Wayne Wingrove ..... District Inspector
James Griffin ..... District Inspector
Elaine Skorich ..... Assistant Attorney General
Wayne Miller ..... Electrical Inspector

Mine Safety and Health Administration

Martin Carver ..... CMS&H Inspector/Accident Investigator
Robert Hatfield ..... CMS&H Inspector/Electrical
William Bane..... CMS&H Inspector/Accident Investigator
Larry Cook .....Supervisory Electrical Engineer
Patrick Retzer.....Electrical Engineer/Technical Support
Matthew Heightland .....Electrical Engineer/Technical Support

APPENDIX B
Victim Information

Accident Investigation Data - Victim Information
Event Number: 6 2 8 7 9 5 9

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

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:
John King	*M*	*28*	*01 Fatal*

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: *a. Date: 04/23/2010 b.Time: 11:40*

6. Date and Time Started: *a. Date: 04/22/2010 b.Time: 15:30*

7. Regular Job Title: *036 Continuous miner operator*

8. Work Activity when Injured: *041 Moving equipment*

9. Was this work activity part of regular job? Yes [X] No [ ]

10. Experience	Years	Weeks	Days
a. This Work Activity:	0	47	5
b. Regular Job Title:	0	47	5
c: This Mine:	2	6	5
d. Total Mining:	5	0	0

11. What Directly Inflicted Injury or Illness? *077 Underground mining machine*

12. Nature of Injury or Illness: *370 Multiple injuries*

13. Training Deficiencies
Hazard: [ ] New/Newly-Employed Experienced Miner: [ ] Annual: [ ] Task: [ ]

14. Company of Employment: (If different from production operator) *Operator*
Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment
Not Applicable: [ ] First-Aid: [X] CPR: [ ] EMT: [X] Medical Professional: [X] None: [ ]

16. Part 50 Document Control Number: (form 7000-1)

17. Union Affiliation of Victim: *9999 None (No Union Affiliation)*

Victim Information:

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:

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
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:	Years	Week	Days
d. Total Mining:	Years	Weeks	Days

11. What Directly Inflicted Injury or Illness?

12. Nature of Injury or Illness:

13. Training Deficiencies:
Hazard: [ ] New/Newly-Employed Experienced Miner: [ ] Annual: [ ] Task: [ ]

14. Company of Employment: (If different from production operator)
Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment:
Not Applicable: [ ] First-Aid: [ ] CPR: [ ] EMT: [ ] Medical Professional: [ ] None: [ ]

16. Part 50 Document Control Number: (form 7000-1)

17. Union Affiliation of Victim:

Victim Information:

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:

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
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:	Years	Week	Days
d. Total Mining:	Years	Weeks	Days

11. What Directly Inflicted Injury or Illness?

12. Nature of Injury or Illness:

13. Training Deficiencies:
Hazard: [ ] New/Newly-Employed Experienced Miner: [ ] Annual: [ ] Task: [ ]

14. Company of Employment: (If different from production operator)
Independent Contractor ID: (if applicable)

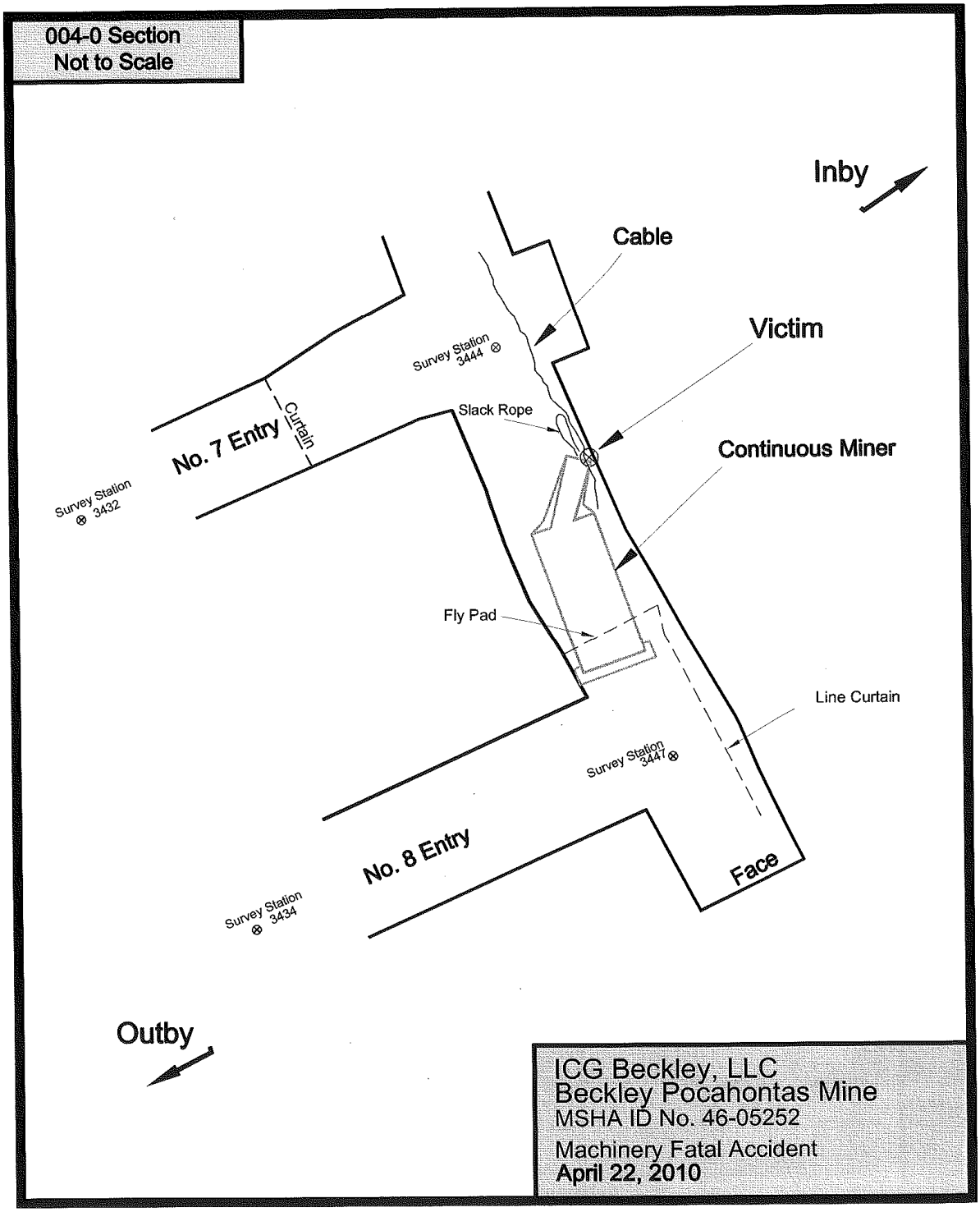
15. On-site Emergency Medical Treatment:
Not Applicable: [ ] First-Aid: [ ] CPR: [ ] EMT: [ ] Medical Professional: [ ] None: [ ]

16. Part 50 Document Control Number: (form 7000-1)

17. Union Affiliation of Victim:

MSHA Form 7000-50b, Mar 2008 Printed 06/16/2010 3:29:40 PM

APPENDIX C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Inby
Cable
Victim
Survey Station
3444 ⊗
Slack Rope
Continuous Miner
No. 7 Entry
Curtain
Survey Station
⊗ 3432
Fly Pad
Line Curtain
Survey Station
3447 ⊗
No. 8 Entry
Face
Survey Station
⊗ 3434
Outby
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