August 17, 2004

Report of a Rib Fall Fatality
(Underground Coal Mine)

McElroy Coal Company
McElroy Mine
Permit No. U-33-83

Region 1 Office
205 Marion Square
Fairmont, West Virginia 26554
Brian Mills, Inspector-At-Large
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A fatal rib fall accident occurred at approximately 4:15 a.m. on August 17, 2004 at the McElroy Coal Company, McElroy Mine. The accident occurred on the 5 North Mains Right Side Section. Mr. Joseph Sabo, age 57, was fatally injured when struck by the coal and rock rib along the right side of the Joy continuous miner.

Bill Blackwell, Safety Supervisor for the McElroy Coal Company notified Brian Mills, Inspector-At-Large with the Office of Miners' Health, Safety and Training at home, of the accident at approximately 5:05 a.m. on August 17, 2004. A joint investigation with the Mine Safety and Health Administration was started immediately.

DESCRIPTION

The McElroy Coal Company, McElroy Mine is a slope and shaft mine, which produces coal in the Pittsburgh seam and is located near Glen Easton in Marshall County. Mining is conducted with two longwall units and five continuous miner units. Employees and supplies are transported by rail. Coal is removed from the mine exclusively by conveyor belt. The mine utilizes the practice of miners changing at the face.

On Tuesday, August 17, 2004, the 5 North Mains Right Side crew entered the mine at their normal starting time at twelve midnight, under the direction of section foreman Bernie Lewis (employee of Dave Stanley Consultants, Inc.). The right side crew consisted of Robert Stack, continuous miner operator, Earl Burkhart, loading machine operator, Frank Persiani, left side roof bolter, Joseph Sabo, victim, right side roof bolter, Theodore Bier, shuttle car operator, Robert Hite, shuttle car operator, Jere Brown, center bolter, Richard Opic, center bolter, Melvin Melott, mechanic and Michael Barnhart, continuous miner utility man. The crew traveled by track mounted vehicle to the 5 North Mains section, arriving at approximately 12:55 a.m. Mr. Bernie Lewis held a safety meeting with the crew and then proceeded to examine the right side working faces #4 thru #7. Mr. Dan Beam, section foreman from the afternoon shift, apprised him of the activities of his shift. The continuous miner was located in the face of the crosscut being mined between the number 5 and number 6 entry, at survey station 38+82.

The crosscut had approximately twenty feet to mine to hole into the number 6 entry. The crew backed the continuous miner out of the face to service and supply the miner. Production began at approximately 1:40 a.m.

The remote controlled Joy miner utilized on the right side of the 5 North Mains section is equipped with integral mounted roof bolters, an ATRS support system, and
a rib protector for both roof bolter operators. The mine is using 15 feet long pre-drilled steel channel, with two eight-foot cable bolts to support the roof. Prior to the accident the rib along the left side of the crosscut was working and Mr. Frank Persiani borrowed the slate bar off the loading machine so both miner bolters would have a slate bar. Loose ribs were taken down on both sides of the crosscut being mined prior to the accident. As the continuous miner was about to hole into the number six entry the rib conditions along both sides appeared to improve. After the crosscut intersected the number six entry, the crew made preparation for mining in the number six entry, while the miner operator and both roof bolters planked thru the area. After aligning the last channel to position it along the left rib line of the number six entry, the bolter operators pressurized the ATRS system and rib protectors. Mr. Stack climbed atop the continuous miner to view the water sprays. While on the miner, he decided to stay and watch the ribs for the bolter operators.

At approximately 4:15 a.m. Mr. Stack noticed the right rib starting to break and yelled to Mr. Sabo to “get out of there”. Mr. Barnhart, who was standing in the intersection in number six entry, heard Mr. Stack and he began yelling to Mr. Sabo to “get out of there”. Mr. Sabo turned and took approximately two steps, placed his left hand against the coal rib at this time the rib fell knocking him into the continuous miner. The rib was estimated to be approximately twenty feet long, five feet high and up to ten inches thick. It broke into two pieces after striking Mr. Sabo. Mr. Stack and Mr. Barnhart began to attend to Mr. Sabo, while Mr. Persiani ran to get help from the other crew members. Mr. Thomas Tyler, roof bolter operator working on the left side section was summoned to assist in treating Mr. Sabo. Mr. Tyler is an EMT. The victim was placed on a stretcher, an AED and cervical collar placed on him, and transported to the surface. CPR was administered during the entire trip out of the mine. The ambulance crew, from Tri-State Ambulance Service, was waiting on the surface and tried to resuscitate. Med. Com was notified by the ambulance crew and Mr. Sabo was pronounced dead at 5:22 a.m. by Med. Com., on the surface at the Blake’s Ridge Portal. He was then transported to the Reynolds Memorial Hospital Morgue, in Glen Easton, West Virginia.
FINDINGS OF FACT

1. The victim was struck by a coal and rock rib fall pushing him into the continuous mining machine.

2. Prior to the accident the victim was positioned at the integral bolter control station on the right side of the continuous mining machine.

3. The Joy (Remote Control) mining machine was equipped with devices referred to as rib protectors.

4. The rib protectors are located on both sides of the continuous mining machine in the vicinity of integral bolter control stations.

5. Mr. Robert Stack, Continuous Miner Operator, stated that he noticed the right rib breaking and cautioned the victim by yelling at him three (3) times.

6. Loose ribs were observed during the on-site investigation at several areas of the 5 North Mains section.

7. During an examination of the 5 North Mains (Right Side) Joy 14CM it was found that the right side rib protector had two pins missing. The upper and lower stop pins were not in the holes provided for them. These two pins limited the distance the outer portion of the rib protector could swing in toward the frame of the miner. The missing pins were not a contributing factor to the fatal injury.

CONCLUSION

While working in the last open crosscut from No. 5 to No. 6 entries on the 5 North Mains section (Right Side) Mr. Joseph F. Sabo was fatally injured when he was struck by a falling section of coal and rock rib and was pushed into the continuous mining machine.
ENFORCEMENT ACTION

The following enforcement action was taken as part of the investigation.

A non-assessed control order was issued in accordance with West Virginia Code Chapter 22A, Article 2, Section 68.

The West Virginia Office of Miners' Health, Safety and Training issued three (3) Notices of Violation during the investigation.

One of these violations was considered to have contributed to the accident and was written as follows:

The West Virginia Code Chapter 22A, Article 2, Section 25(a)

It was revealed during the investigation that ribs were not supported or controlled adequately to protect persons from a fall of the rib in the crosscut from No. 5 to No. 6 entries at 30 Block of the 5 North Mains (Right Side) section. Mr. Joseph F. Sabo suffered fatal injuries when he was struck by a large section of coal and rock rib that pushed him into the continuous miner machine. The rib fall started near the No. 6 intersection and continued outby toward No. 5 intersection for a distance of approximately twenty (20) feet. The falling section of rib was approximately five (5) feet in height and approximately ten (10) inches in width.

RECOMMENDATIONS

Mine management shall have a safety meeting with employees of the mine to discuss the fatal accident. Mine management shall submit as a modification to the control order information regarding rib support (See Attachment No.1). Mine management shall add to the roof control plan rib support specifications (See Attachment No.2).
ACKNOWLEDGEMENT

The West Virginia Office of Miners’ Health, Safety and Training, gratefully Acknowledges the cooperation of the employees and management of McElroy Coal Company, Consolidation Coal Company, Consol Energy, the United Mine Workers of America and the Mine Safety and Health Administration during this investigation.

Respectfully submitted:

Terry Farley, Administrator  
9-20-04  
Date

Brian Mills, Inspector-At-Large  
9/23/04  
Date

John Hall, District Inspector  
9/27/04  
Date

Alan Lander, Safety Instructor  
9/27/04  
Date
APPENDIX

* Mine Data Sheet
* Victim Data Sheet
* List of persons providing information or present during the investigation
* Attachments
MINE INFORMATION DATA SHEET

COMPANY: McElroy Coal Company

MINE NAME: McElroy Mine

WV PERMIT: U-33-83

ADDRESS: RD 1, Box 67A, Glen Easton, WV 26039

COUNTY: Marshall

DATE PERMIT ISSUED: May 16, 1988

WORKING STATUS: Active

LOCATION: Blakes Ridge, Glen Easton

UNION: X  Non-Union: 

TOTAL EMPLOYEES: 635  NUMBER OF SHIFTS: 3

COAL SEAM NAME AND THICKNESS: Pittsburgh #8 - 62 Inches

TYPE OF HAULAGE: Belt Coal Haulage - Track Supplies & People

WVOMHST INSPECTOR: Colin D. Simmons

DATE OF LAST INSPECTION: June 25, 2004

NOTIFIED BY: William Blackwell

NOTIFICATION: Telephone to Brian Mills home

CMSM-ANNIVERSARY DATE: April 28, 2005

CMSP-CONTACT PERSON: Thomas Coram
VICTIM INFORMATION DATA SHEET

NAME: Joseph Sabo

ADDRESS: RD #1, Box 135, Glen Easton, WV 26039

TELEPHONE NO.: (304) 845-3159

AGE: 57 SOCIAL SECURITY NO.: xxx -xx -1843

TOTAL MINING EXPERIENCE: 13 Years 7 Months

EXPERIENCE AT THIS MINE: 1 Year 7 Months

AVERAGE NUMBER OF DAYS WORKED PER WEEK: 6

AVERAGE NUMBER OF HOURS WORKED PER WEEK: 60 PER DAY: 9-10

LENGTH OF SHIFTS AT THIS MINE: 9 – 10 Hours

OCCUPATION AT TIME OF ACCIDENT: Miner Bolter

REGULAR OCCUPATION: Miner Bolter

COAL MINER’S CERTIFICATION: 1-23531

OTHER CERTIFICATIONS: 

SPOUSE’S NAME: Starr E. Sabo

DEPENDENTS: None

DATE OF ACCIDENT: 17th DAY OF August, 2004 AT 4:15 O’CLOCK a.m.

CAUSE OF ACCIDENT: Falling section of coal and rock rib.
INTERVIEWS

The following persons were present during one or more of the interviews conducted during the investigation:

McElroy Coal Company
(Consolidation Coal Company-Consol Energy)

Charles E. Bane                              Safety Director – Mining
Tom Coram                                   Mine Superintendent
William Blackwell                           Safety Supervisor
*Bernie Lewis                               Section Foreman

*Robert Stack                               (Dave Stanley Consultants, Inc.)
*Frank Persiani                              Miner Operator
*Michael Barnhart                            Miner Roof Bolter
*Richard Opie                                Miner Utilityman
*Robert Hite                                 Center Bolter
*Thomas Tyler                                Shuttle Car Operator
*Melvin Melott                               Miner Roof Bolter
*Jere Brown                                  Center Bolter Helper
*Theodore Bier                               Shuttle Car Operator
*Steve Addington                             Master Mechanic
*Earl Burkhart                               Loader Operator
*Robert Kinkade                              Miner Bolter - Right Side-Afternoon Shift
*Thomas Ice                                  Miner Operator-Right Side Afternoon Shift
*Dan Beam                                    Foreman – Right Side Afternoon Shift

*Denotes persons interviewed

United Mine Workers of America

Hoya Clemons                                 President Local 1638
Rick Altman                                  Safety Committeeman
Dennis O’Dell                                 International Safety

Mine Safety and Health Administration

Jan Lyle                                     CMSH Inspector (Roof Control)
Jason Rinehart                               Industrial Hygienist
Cindy Shumiloff                              MSHA – EFS

West Virginia Miners’ Health, Safety and Training

Brian Mills                                  Inspector-At-Large
John Hall                                    District Mine Inspector
Aian Lander                                  Safety Instructor
INVESTIGATION

The following persons were present during one or more of the on-site investigations:

McElroy Coal Company
(Consolidation Coal Company-Consol Energy)

John Zachwieja  
Vice President

Elizabeth Chamberlin  
Safety Director

Charles E. Bane  
Safety Director – Mining

Tom Coram  
Mine Superintendent

Mike Sinozich  
Corporate Safety

Bill Blackwell  
Mine Safety Supervisor

Chad Delloma  
Mine Safety Inspector

Tom Olzer  
Operation Safety Inspector

John Kulvick  
Mine Safety Inspector

Dave Aloia  
Assistant Superintendent

United Mine Workers of America

Hoya Clemons  
President Local 1638

Rick Eddy  
International Safety

Jan Niceswanger  
Local Safety Committeeman

Don Byser  
Local Safety Committeeman

John Mercer  
Local Safety Committeeman

Rick Altman  
Safety Committeeman

Mine Safety and Health Administration

Kevin Stricklin  
District Manager

Bill Ponceoff  
Assistant District Manager

Nelson Blake  
Chief Roof Control

Ron Wyatt  
Staff Assistant

Jason Rinehart  
Industrial Hygienist

Jan B. Lyall  
CMSH Inspector (Roof Control)

Bill Gray  
MSHA Tech. Support

Mike Gauna  
MSHA Tech. Support

Jerry Vance  
MSHA – EFS

Allen McGilton  
Field Supervisor

John Collins  
Field Supervisor

Charles Thomas  
CMSH Specialist (Roof Control)

Jim Preece  
CMSH Inspector
West Virginia Miners' Health, Safety and Training

Doug Conaway
Terry Farley
Brian Mills
John Hall
Bennie Comer
Alan Lander
Jim Whetsell

Director
Administrator
Inspector-At-Large
District Mine Inspector
Electrical Inspector
Safety Instructor
Roof Control Inspector
To all interested parties,

The following information is being submitted for modification of the existing orders to facilitate the resumption of operation of the continuous miner units at the McElroy Mine:

- Roof and rib bolt installation will be in cycle. Roof and rib bolts will not be installed simultaneously. The roof bolt will preferably be installed first unless conditions warrant otherwise.
- Rib Bolt specifications
  - Minimum Length 48”
  - Diameter 5/8 and ¾ inch
  - Grade 1040 and/or ASTM A 306 Grade 80 HS
  - Type of Anchorage: Expansion Shell
  - Hole size 1-3/8 Inch
- Rib bolts will be installed utilizing a T-3 channel a minimum of thirty-six (36) inches in length. Wood and fiber types of plank may also be installed.
- Rib bolts will be installed on a maximum of five (5) foot centers and installed with in five (5) foot of the outby end of the rib protector.
- Rib protectors will be maintained on coal production miner units.
- During rib bolting installation an additional person will be available to assist in the installation of the rib bolts as needed.
- All employees will be trained in the provisions of this plan.
- Rib fracture zone information will be provided to interested parties.

Thomas Coram
Superintendent
McElroy Mine

ATTACHMENT NO. 1
The following information is being submitted to terminate Order No. 33-83 written at the McElroy Mine, McElroy Coal Company, August 17, 2004.

Rib Bolting on Continuous Miner Sections

1. Rib bolts will be installed on continuous miner sections in cycle and the spacing will not exceed 5 feet.

2. Rib bolts will be installed utilizing a minimum of 1 inch by 6 inch by 36 inch wooden plank or by T-1 channel at least 36 inches in length.

3. Rib bolts will be 48 inches in length and will be made from metal, plastic or fiber. The bolts will be installed with a expansion shell or resin meeting the manufacturers' recommendations.

4. Areas, where crosscuts will be turned will be marked with flagging or reflective material to warn workers of rib areas not rib bolted on initial mining. Any area not rib bolted on initial mining such as areas where crosscuts are mined through and the distance inby or outby are not within 5 feet of the last rib bolts, the area will be:
   a. Area will be identified with pogo sticks or similar device (along with flagging or reflective material) set in a manner to keep people away from the unbolted rib.
   b. Area will later be rib bolted when the miner rib bolter or other rib bolter can be utilized.

5. Rib drills are fixed on the sides of the continuous miners, rib straps at least 36 inches in length will be installed in a manner to catch at least 6 inches of rock (stone binder) under normal mining conditions.

6. Rib protectors will be maintained on continuous miners.

7. Rib bolts will be maintained inby the tailpiece on continuous miner working sections.
Rib Bolting

Conventional Mechanical Rib Bolts

Minimum Length: 48 inches
Minimum Diameter: 5/8 inch
Grade: 1040 and/or ASTM A 306 Grade 80 HS
Type of Anchorage Unit: Expansion Shell
Hole Size: 1-3/8 inch

Resin Grouted Rib Bolts

Minimum Length: 48 inches
Minimum Diameter: 5/8 inch
Grade: ASTM Grade 60
Type of Anchorage Unit: Resin Grout
Minimum Hole Size: 1-inch (for 5/8 inch bolt)

Plastic Dowel Rib Bolts

Minimum Length: 48 inches
Minimum Diameter: 7/8 inch
Grade: Tensile Strength 5 tons
Type of Anchorage Unit: Resin Grout
Minimum Hole Size: 1-1/16 inch (for 7/8 inch bolt)
STATE OF WEST VIRGINIA
OFFICE OF
MINERS' HEALTH, SAFETY AND TRAINING
1615 Washington Street East
Charleston, West Virginia 25311-2126

NOTICE OF VIOLATION

Company / Operator: McElroy Coal Company
Contractor: Yes No

Permit Number: IL-33-83
Mine Name: McElroy

Date of Issue: September 14, 2004 Time: 9:00 A.M. P.M.

Notice is hereby given that the undersigned authorized representative of the Director of the Office of Miners' Health, Safety and Training, upon making an inspection of this mine finds that the violation referred to in West Virginia Code, Chapter 22A Article 2 Section 25(a) and/or West Virginia Administrative Regulation: exists as follows: It was revealed during the investigation that ribs were not supported or controlled adequately to protect persons from a fall of the rib in the course of work at the 10.5 to 10.6 entries at 30 Black of the 5 North Mine (Right Side) section. Mr. Joseph F. Rea suffered fatal injuries when he was struck by a large section of coal and rock rib that pushed him into the continuous miner machine. The rib fall started near the 10.6 intersection and continued out to rib 10.5 intersection for a distance of approximately twenty (20) feet. The falling section of rib was approximately five (5) feet in height and approximately ten (10) inches in width.

Type of Issuance: N.O.V. Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 9:00 A.M. p.m. on 9-14-2004
The foregoing violation was totally abated by 9:00 A.M. p.m. on 9-14-2004

Action taken to abate the violation: Operator has submitted a revision of their roof and rib control plan to control the loose ribs.

Company / Operator Agent Served: Bill Blackwell

Authorized Representative: James Hall

REVIEW: In accordance with Section 22A-1-17 of the Code, an operator or any representative of the miners may apply to the Director of the Office of Miners' Health, Safety and Training for review of this notice of violation within thirty (30) days from the issued date.

VIOLATION ASSESSMENT EVALUATION

Recommend Special Assessment: X

Likelihood of Occurrence: Unlikely: *(0) Reasonably likely (10) Occurred (20)
Severity of Injury Expected: None: *(0) No lost work days *(6) Lost or restricted days (11)

Permanently disabling (15) Fatal (20)

No. of Persons Potentially Affected: 0 (0) 1 (1) 2 (2) 3 (4) 4-5 (6) 6-9 (8) 9+ (10)

Negligence: None (0) Low (10) Moderate (15) High (20)

Knowing Violation: No Yes Repeat

Good Faith in Abatement: Lack of good faith (+15%)

No compliance (extenuating circumstances) (0%) Extra effort (-15%)

9/15/04
NOTICE OF VIOLATION

Company / Operator: McElroy Coal Company
Permit Number: U-33-83
Mine Name: McElroy

Date of Issue: September 14, 2004
Time: 9:00

Notice is hereby given that the undersigned authorized representative of the Director of the Office of Miners' Health, Safety and Training, upon making an inspection of this mine finds that the violation referred to in West Virginia Code, Chapter 22A, Article 2, Section 25(b) and/or West Virginia Administrative Regulation Title Series Section exists as follows: During the on-site investigation on the 5 North Mains (Right Side) section loose ribs were observed at several locations in entries and crosscuts.

Type of Issuance: N.O.V. ✔ Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 9:00 a.m. p.m. on 9-14-2004

The foregoing violation was totally abated by 9:00 a.m. p.m. on 9-14-2004

Action taken to abate the violation: During the on-site investigation the loose ribs were pulled down or supported.

Company / Operator Agent Served: Bill Blackwell

Authorized Representative: [Signature]

Inspector No. 16670

REVIEW: In accordance with Section 22A-1-17 of the Code, an operator or any representative of the miners may apply to the Director of the Office of Miners' Health, Safety and Training for review of this notice of violation within thirty (30) days from the issued date.

VIOLATION ASSESSMENT EVALUATION

Recommend Special Assessment:

 Likelihood of Occurrence: Unlikely: *(0) Reasonably likely *(10) X Occurred (20)
 Severity of Injury Expected: None: *(0) No lost work days *(6) Lost or restricted days *(11) X
 Permanently disabling (15) Fatal (20)
 No. of Persons Potentially Affected: 0 (0) 1 (1) X 2 (2) 3 (4) 4-5 (6) 6-9 (8) 9+ (10)
 Negligence: None (0) Low (10) Moderate (15) X High (20)
 Knowing Violation: No X Yes Repeat
 Good Faith in Abatement: Lack of good faith (+15%)
 No compliance (extenuating circumstances) (0%) X Extra effort (-15%)
STATE OF WEST VIRGINIA

OFFICE OF
MINERS' HEALTH, SAFETY AND TRAINING
1615 Washington Street East
Charleston, West Virginia 25311-2126

NOTICE OF VIOLATION

Company / Operator: McElroy Coal Company

Permit Number: U-33-83

Mine Name: McElroy Mine

Date of Issue: 8-19-04

Time: 10:17 A.M.

Notice is hereby given that the undersigned authorized representative of the Director of the Office of Miners' Health, Safety and Training, upon making an inspection of this mine finds that the violation referred to in West Virginia Code, Chapter 23, Article 2, Section 25, and/or West Virginia Administrative Regulation:

Title ____________________________

Series: ____________________________

Section: ____________________________

exists as follows:

1) In the crosscut four to five entry at low 38+82, two of the immediate T-2 channels were 44 and 45 inches with an exposed slicken/slide slip.
2) In No. 5 entry last open crosscut (38+82) T-2 channels were 54 inches apart in a slip.
3) No. 4 entry 20ft inhy displ # 38+13 T-2 channels were 48 and 49 inches apart with extensive fractures in the roof rock.
4) In No. 4 entry additional support needed added inhy displ 38+86 on the right side where the top has deterred around 1 T-2 channel in a clay vein with a slip.

Type of Issuance: N.O.V. Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 12:00 P.M. on 8-19-2004.

The foregoing violation was totally abated by ____________________________

Action taken to abate the violation: The area was dangereous off until additional support can be installed. The area is under a holding order from a fatal.

Company / Operator Agent Served: John Kulavik

Authorized Representative: James Whitfield

Inspector No. 44

REVIEW: In accordance with Section 22A-1-17 of the Code, an operator or any representative of the miners may apply to the Director of the Office of Miners' Health, Safety and Training for review of this notice of violation within thirty (30) days from the issued date.

VIOLATION ASSESSMENT EVALUATION

Recommend Special Assessment: [ ]

Likelihood of Occurrence: Unlikely: *(0) Reasonably likely (10) [ ] Occurred (20)

Severity of Injury Expected: None: *(0) No lost work days *(6) Lost or restricted days (11)

Permanently disabling (15) Fatal (20)

No. of Persons Potentially Affected: 0 (0) 1 (1) 2 (2) 3 (4) 4-5 (6) 6-9 (8) 9+ (10) [ ]

Negligence: None (0) Low (10) Moderate (15) High (20)

Knowing Violation: No [ ] Yes [ ] Repeat [ ]

Good Faith in Abatement: Lack of good faith (+15%) [ ]

No compliance (extenuating circumstances) (0%) [ ] Extra effort (-15%) [ ]