CAI-2014-02

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Machinery Accident
February 21, 2014

Mine No. 30
Dominion Coal Corporation
Jewell Ridge, Buchanan County, Virginia
ID No. 44-06748

Accident Investigator

Russell A. Dresch
Electrical Engineer

Originating Office
Mine Safety and Health Administration
District 5
P.O. Box 560, Wise County Plaza
Norton, Virginia 24273
Gregory B. Meikle, District Manager

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Photo No. 1 – Victim Location

OVERVIEW

At approximately 3:37 p.m., on Friday, February 21, 2014, Arthur D. Gelentser III, age 24, a continuous mining machine operator with 5.5 years of mining experience was fatally injured. The victim was pinned between the boom of a remotely controlled continuous mining machine and the coal rib.

The victim was located in a pinch point created by the machine and the coal rib while tramming the continuous mining machine. The root cause of the accident was a failure to comply with provisions of the approved roof control plan that prohibited anyone from being positioned between the continuous mining machine and the coal rib when tramming from place to place.

GENERAL INFORMATION

Dominion Coal Corporation's Mine No. 30 is an underground coal mine located adjacent to State Route 635 in Buchanan County, Virginia near Jewell Ridge. Jewell Resources Corporation has ownership interest in the mine. The principal officers for the mine at the time of the accident were:

Casey B. Colley	Mine Superintendent
Timothy J. Thompson	Manager of Health and Safety
Scott Deel	Shift Foreman

Mining under current management began on February 26, 2007. This mine has three drift openings located on Linn Camp and four drift openings located near Slate Creek into the Red Ash coal seam. The mining height averages 42 inches. The mine is ventilated with two blowing fans. The last air sample collected showed that 35,279 cubic feet of methane was liberated in a 24 hour period. The immediate mine roof is typically shale that is five feet thick or greater. The main roof is sandstone with a typical thickness of 12 feet or more. The maximum cover over the coal bed is 650 feet.

The mine employs 85 people operating three, nine-hour, overlapping shifts per day, six days per week. There are two production shifts and one maintenance shift each day. Coal is produced from two active sections. The mine produces an average of 1,724 tons of raw coal per day.

The method of mining is room and pillar. Coal is produced on each section with a remotely controlled continuous mining machine. Coal is hauled by two shuttle cars from the face areas to the belt conveyor system for transport to the surface. Trucks haul the raw product from the mine to the preparation plant. A roof bolting machine on each section is used to install roof support. Employees and supplies are transported to the sections via battery-powered, rubber tired equipment. At the time of the accident, both sections were advance mining.

The Mine Safety and Health Administration (MSHA) completed the last regular health and safety inspection of the mine on December 17, 2013; however, a regular safety and health inspection was commenced on January 2, 2014, and was ongoing at the time of the accident. The non-fatal days lost (NFDL) injury incidence rate for the mine in 2013 was 4.19 compared to the national NFDL rate of 3.23 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On February 21, 2014, up to the time of the accident, personnel from the Dominion Coal Corporation's Mine No. 30 performed normal work functions. Production activities

continued as the evening shift relieved the day shift on the active working sections. On the H section (003 MMU) the day shift crew had begun mining coal inby spad number 3634 in the #4 entry face. The evening shift crew took over at about 2:20 p.m. and finished this cut. Gelentser (victim) was operating the continuous mining machine with a remote control unit.

From the #4 entry face, Gelentser repositioned the machine into the #4 right crosscut. The crew finished mining the second lift in the #4 right crosscut.

Gelentser began to tram the machine to the next destination, the #1 entry. From the #4 right crosscut, he backed the machine past the outby crosscut in the #4 entry. He turned left and continued tramming toward the #1 entry.

James Parnell, Shuttle Car Operator, assisted Gelentser by hanging curtain in the #1 entry while Gelentser was tramming to that location. Parnell went to the #3 entry where Jeffery Keen, Shuttle Car Operator, was waiting. Parnell stated that Gelentser dropped a loop of cable off the machine at the #4 and #3 entries. The last loop, cut slack, was still attached to the hook on the boom of the machine. He also stated Gelentser trammed the continuous mining machine past the #3 entry while duck walking behind the machine. Gelentser told Parnell to go to the #4 entry to keep the cable against the inby rib. He trammed the machine 2.5 crosscuts from the #4 entry to a location between entries #1 and #2 (see Appendix A).

Keen and Parnell continued to assist Gelentser by ensuring the continuous mining machine's cable stayed along the inby rib of the crosscut. Keen was aligning the cable in the #3 entry and Parnell in the #4 entry. Kenneth Harris, Substitute Section Foreman, was in the #5 entry marking where the next right crosscut would be cut. James Pruitt and Richard Smith, Roof Bolters, were in the #4 right crosscut bolting the roof. Robert Cyphers, Scoop Operator, was located one crosscut outby spad number 3635, between the #2 and #3 entries. He was constructing a stopping out of cinder blocks. Kevin Duty, Electrician, was located in the #5 entry, one crosscut inby the power center troubleshooting a pump.

Keen stated the continuous mining machine was being trammed between the #1 and #2 entries when it shut down. When it shut down, he believed it was going to take several minutes to restart due to a recurring malfunction. Keen yelled to Parnell that the machine shut down and they waited. Keen stated he could have seen Gelentser from his location but he did not look in that direction.

Harris finished the work in the #5 entry. He noticed he did not hear the noise of the shuttle cars operating. He went to the #5 entry intersection and saw Parnell in the #4 entry intersection. Harris asked Parnell what was happening. Parnell did not know but thought the continuous mining machine had not reached the #1 entry yet. Parnell went

to Harris and they talked briefly. Harris yelled at Keen to ask what was wrong with the continuous mining machine. Keen replied again that it quit. Harris told Keen to find out why.

Keen went to the continuous mining machine and discovered Gelentser pinned between the back end of the boom of the machine and the inby coal rib of the crosscut. The boom was found in its far right position. The boom hit him mid-torso with his back to the rib. Gelentser was kneeling on his right knee; the left knee was caught by the boom and pushed to his chest. His arms were down; the left arm was against the front of his body. He was unresponsive and appeared purplish-black. The remote control unit was pinned between Gelentser's right knee and the bottom of the boom. The continuous mining machine was energized but the pump motor was not running.

Keen quickly went back toward the #3 entry while yelling to inform Harris of the situation. Cyphers heard Keen and traveled to the accident scene. Harris also went to the accident scene while Parnell went to the roof bolting machine at #4 right crosscut and informed Pruitt and R. Smith. Pruitt traveled to the accident scene. Parnell then traveled to the secondary escapeway phone located near the feeder. Along the way he also alerted Duty.

Parnell reached the feeder and de-energized it. He then called outside. At about 3:42 p.m., Parnell reported the accident to Scott Deel, Mine Foreman. Harris left the accident scene and went to the primary escapeway phone, located at the section power center, to call the surface. Harris called out shortly after Parnell.

After Duty was informed by Parnell, Duty rode his mantrip near the accident scene. Once at the continuous mining machine, he looked for the remote control unit. He found the controller and freed it from its location. Duty started the pump motor and moved the boom away from Gelentser. R. Smith arrived on the accident scene. Duty, R. Smith and Cyphers assessed the victim. They believed they felt a faint pulse but later were unsure. Duty began administering cardiopulmonary resuscitation (CPR).

Parnell went from the secondary escapeway phone to the section power center. There he got the mantrip and with Pruitt traveled one crosscut outby to pick up the first-aid box. They then proceeded to the accident scene. Keen moved his shuttle car to allow the mantrip access to the accident scene. Upon arriving with the first-aid box, Parnell and Duty connected an automatic external defibrillator (AED) to the victim. The AED analyzed the victim and gave a result of no shock advised and to continue CPR. Duty and Pruitt resumed CPR.

Cyphers went to get the backboard and returned. Harris, Pruitt and Duty placed Gelentser on the backboard. They loaded him onto the mantrip and proceeded outside. Cyphers was driving the mantrip. Duty was next to Cyphers updating surface

personnel with their location by using the mine's wireless communication system. Pruitt and Parnell continued CPR. Along the way Cyphers replaced Pruitt in performing CPR.

Mercy Ambulance Service arrived at the mine site at about 4:22 p.m. before the mantrip arrived outside. Once the mantrip was on the surface, personnel from the ambulance service took over care of the victim at about 4:45 p.m. They continued CPR and transferred him into the ambulance. They left the mine at about 4:50 p.m. and transported him to Clinch Valley Medical Center, Richlands, Virginia, at about 5:29 p.m. The emergency room physician, Dr. Mary Palmer, pronounced him dead at 5:41 p.m.

INVESTIGATION OF THE ACCIDENT

On February 21, 2014, at about 3:47 p.m., Scott Deel, Shift Foreman, called the MSHA toll free number to inform the agency of the accident. Personnel from the hot line contacted Scott Beverly, Supervisory Coal Mine Safety and Health Inspector, at 3:58 p.m. Information concerning the accident was gathered and an accident investigation team was assembled. The team consisted of Russell A. Dresch, Electrical Engineer, Mark A. Tuggle, Coal Mine Safety and Health Inspector (Roof Control / Impoundments), and Paul E. Smith, Coal Mine Safety and Health Inspector. Dresch was designated the team leader.

At 4:10 p.m. P. Smith issued a verbal 103(j) order by phone to Deel. This order was issued to ensure the health and safety of persons in the affected areas of the mine until the investigation could be completed. MSHA personnel arrived at the mine at 5:10 p.m. and modified the 103(j) order to a 103(k) order at 5:14 p.m.

Officials from Dominion Coal Corporation; Virginia Department of Mines, Minerals, and Energy (DMME); and MSHA arranged a joint investigation at the mine (see Appendix B). On February 21 and 22, 2014, the investigation team collected information, examined, and photographed the accident scene. The remote control unit and continuous mining machine involved in the accident were put through a series of operational tests to determine if they functioned properly. The remote control unit and its battery were obtained from the mine in order to examine and test it under laboratory conditions.

Joint interviews with DMME were conducted with 15 miners on February 24 and 26, 2014, at MSHA offices at Oakwood, Virginia. Those persons interviewed are listed in Appendix B.

On February 27, 2014, Stephen B. Dubina, Electrical Engineer, from the MSHA Pittsburgh Safety and Health Technology Center (PSHTC) conducted testing at the

mine. He directed a battery of tests for the remote control unit and continuous mining machine on both sections at the mine.

The remote control unit was tested at the laboratory of Matric Limited on April 8, 2014, in Franklin, PA. Examination of the controller and its components was initiated on April 9, 2014, at the MSHA Approval and Certification Center (A&CC) in Triadelphia, WV.

DISCUSSION

Physical Factors

The accident occurred in the crosscut between the #1 and #2 entries near spad number 3636 on the advancing H section of Sub Main B-003-0 MMU. The section consisted of 7 entries. Entries #5 and #6 provided intake air to ventilate the section. The section used split air ventilation with return air in entries #1, #2 and #7.

The section was generally wet and muddy with standing water in some areas. The area around the accident site had mud and water less than one inch deep. This area was relatively flat and level with a height of approximately 46 inches. The roof was generally smooth. The inby rib was also generally smooth but it was concave.

A 2/0 American Wire Gauge (AWG), 2 Kilovolt (KV) trailing cable supplied power to the continuous mining machine. During operation, the cable and a waterline are pulled by the continuous mining machine. The waterline is used to supply water during the mining process. The cable and the waterline are adjacent as they are being pulled by the machine. The victim was in close proximity to the moving cable and waterline at the time of the accident.

Along the middle of the boom, on the right side, there is a hook used to pull sections (loops) of the cable and waterline. A short piece of rope that is attached to the cable and waterline is used to connect to the hook to assist with their placement. At the time of the accident, there was one rope attached to the hook. Typically this rope would have been removed from the hook after the machine was turned and heading toward the face in the #1 entry.

The boom was positioned to the far right side of the continuous mining machine. This position helps align the trailing cable to lie close to the inby rib. This is a typical practice at this mine to reduce the handling of the cable by the miners.

Behind the boom of the continuous mining machine, the roof level abruptly changed. Traveling from the #2 entry to #1 entry, the change reduces the height of the mine by about 6 inches over a horizontal distance of about 3 inches. There were no markings in the rock dust on the roof at this area to indicate that the change in height contributed to

the accident. The distance between the roof change and the accident site, which is about 2 feet, also lessens the likelihood that the change in height contributed to the accident. There were two coils of waterline lying near the inby, left corner of the #2 entry. They were located too far away to have contributed to the accident.

No other remote control units or remotely controlled equipment were on the section. During the accident investigation interviews, no one stated that the continuous mining machine would make unexpected movements. Most co-workers stated Gelentser would duck walk, instead of crawl, behind the machine while tramming. He would not strap the remote control unit to him, but hold it instead. No one witnessed him, or anyone else, operate the continuous mining machine while in an unsafe area. There were no eyewitnesses to the accident.

The roof control plan approved on June 21, 2012, prohibits anyone from being positioned between the continuous mining machine and the coal rib while tramming the machine from place to place.

Equipment

The remotely controlled continuous mining machine involved in the accident was manufactured by Joy Mining Machinery, Model No. 14-CM10-11AX, Serial No. JM6490 with an MSHA Approval No. 2G-4159A-00. The nominal input voltage to the machine was 995 volt, 3-phase, 60 hertz. The remote control unit being used at the time of the accident was manufactured by Matric Limited, Model No. TX3, Part No. 100510082, Serial No. 155609AM013 A, MSHA Approval No. 2G-4096-0.

For the last two or three days prior to the accident, it was reported that the continuous mining machine had an intermittent start-up problem. When attempting to start the machine, sometimes it would fail and display a pump error message. To correct the problem, the computer onboard the machine had to be reset before initiating the start-up again. Resetting the computer could be accomplished in a number of ways. It would reset after toggling either the main breaker on the continuous mining machine or the breaker at the power center. Also, starting the machine in manual mode and then switching it to remote control mode would cause the computer to reset. The computer sometimes needed to be reset several times before the machine would function. This problem could take several minutes to resolve, depending on the number of times needed to reset the computer before it would function properly.

This problem with the continuous mining machine only prevented the machine from starting. It did not cause the energized machine to stop functioning or act erratically. Therefore, it did not contribute to the accident.

On the owl shift prior to the accident, the maintenance crew replaced the trailing cable and Module A on the continuous mining machine. The Module A is part of the Joy

Network Architecture control system for various input and outputs required for machine functionality. This was done in an attempt to repair the start-up problem.

On February 21, 2014, the day shift crew which followed the owl shift reported that the machine still had the intermittent start-up problem. The section production report for this day shift showed 20 minutes down time for the continuous mining machine due to it "keep cutting off on operator." This problem was not observed during the shift of the accident.

The remote control unit has handles on top of the box at both ends. Not only are these handles used for carrying the box; they also provide some damage protection to the controls. The handle on the right side was broken on one end. Tommy Stump, Day Shift Miner Operator, stated the handle had been broken for two or three days prior to the accident. The tram enable and tram controls are on the left side of the unit and were not affected by this damage.

Joy Network Architecture

The continuous mining machine has a Joy Network Architecture (JNA) system which is the machine's computer-based control system. It has an onboard display that can be used for troubleshooting. It indicates a change in the state of the machine, such as when the pump motor is turned on, when the methane monitor trips, or when the tram is enabled. The display data is saved in a log file in display flash memory.

The display on the continuous mining machine revealed the following information. Motors associated with mining coal were stopped. For the next 8 minutes and 22 seconds, the m1081 Tram On event was set and cleared 11 times. This event only indicates that the tram enable switch was actuated on the remote control unit. The tram enable must be actuated prior to pressing the tram levers in order for the machine to tram. The Tram On has a two second delayed time out either after the tram enable is released and the tram levers are not activated or after the tram levers are idled. The Tram On event does not indicate that the continuous mining machine was moving in either direction. However, if the Tram On is shown as set for longer than two seconds, then it can be assumed that the tram lever(s) are being operated and the continuous mining machine is being trammed in some manner.

Of the 11 times the Tram On event cycled, it only cleared the event twice within the two second time out setting. This indicates that for nine times the tram levers had to be operated in some manner to prevent the Tram On from being cleared. These events correspond to tramming the miner from #4 Right Crosscut to between #1 and #2 Entry.

The last time the Tram On event was set it lasted for 58 seconds. The continuous mining machine was moving in some manner during that timeframe. From the interviews and accident scene, it can be determined that no unusual movements

occurred during this time. The continuous mining machine was being trammed toward the #1 entry. The majority of the time it was moving forward and the direction would have been adjusted as needed.

The last time the Tram On was cleared it was due to lost data communication between the continuous mining machine and the remote control unit. This also caused the pump motor to turn off. The tracks made by the continuous mining machine revealed that it was turning or pivoting toward the left. This action caused the back of the machine to move toward the right and pin Gelentser.

After 15 minutes and 42 seconds the startup sequence was initiated on the continuous mining machine. The pump motor was on for 18 seconds before the machine was idled. This is the time that the machine was energized and the boom was moved. Duty stated he initiated the machine startup as normal by toggling the emergency stop switch. He also stated he did not move the continuous mining machine, that he only swung the boom.

During the events discussed above, the timeframe on the JNA system was not reset. The continuous mining machine was energized throughout this period. Therefore, the start-up problems with the machine did not contribute to the accident.

Testing

On February 22, 2014, the investigation team examined and tested the remote control unit and continuous mining machine involved in the accident. They were put through a series of operational tests to determine if the machine would function properly. The forward and reverse tram controls operated properly as well as the other functions of the machine.

On February 27, 2014, Dubina conducted testing at the mine. He directed a battery of tests for the remote control unit and continuous mining machine on the H section (003 MMU). The remote control unit was tested at the laboratory of Matric Limited on April 8, 2014, in Franklin, PA. Examination of the controller and its components was initiated on April 9, 2014, at A&CC in Triadelphia, WV.

During the two days of testing of the continuous mining machine at the mine, it did not exhibit the start-up problem. The remote control unit was also tested to determine the range of the device and if it would fail to function in certain areas. The range was found to be well beyond either end of the continuous mining machine. No areas near the continuous mining machine were discovered that would affect the function of the remote control unit.

The results of the testing and examination, as directed by Dubina, are as follows:

1. All switches of the remote control transmitter with emphasis on the tram functions and conveyor boom swing operated the corresponding functions on the continuous mining machine. There were no observed functional problems that would have been a contributing factor in the accident.

2. The SHEAR switch had a large amount of dirt and debris on its sides and on its internal magnet. Since this switch is not considered critical to this accident, this is not considered a factor in the accident.

3. Because of the unique identification code associated with each remote control transmitter, the field testing conducted indicated that there was no cross activation of the continuous mining machine by other radio frequency (RF) devices used underground, *i.e.* hand held radios and tracking devices; and these devices were not considered to be a contributing factor in the accident.

4. One minor extra component on a Matric schematic diagram was found, but the unit itself was constructed properly, and this component was not considered to be a contributing factor in the accident.

Experience and Training

Gelentser had 5 years 26 weeks of mining experience with 3 years 32 weeks of that as an underground miner. He worked at Mine No. 30 for 1 year 3 weeks 4 days. He was a continuous mining machine operator for 2 years 26 weeks 1 day.

The training records for Gelentser were up to date. On February 9, 2013, he completed surface and underground experienced miner training for Mine No. 30. He received task training for a mantrip on February 11, 2013; the continuous mining machine on February 13, 2013; and blocking against motion on May 13, 2013. During task training on February 13, 2013, Gelenster received training on avoiding Red Zones and on how to properly position himself while operating the continuous mining machine. On August 5, 2013, he received surface and underground annual refresher training for this mine.

No newly employed inexperienced miner training record or other task training records were provided by the mine operator. Such documents are to be kept at the mine site for currently employed miners for two years. Since Gelentser had been an underground miner for over two years, any record of training prior to February 2012 could have been purged.

Examinations

The pre-shift and on-shift records for the H section (003 MMU) section were found to be up-to-date. No significant entries were recorded for the evening pre-shift on the day of the accident. The on-shift report had not been recorded before the accident. Also, no significant entries were recorded for the pre- and on- shift reports for the previous day and owl shifts.

The last weekly electrical examination record for the continuous mining machine was up to date. It was written on February 13, 2014. Comments in the report denote that the circuit breaker trip switch on the remote control unit failed and had been repaired. The actual repair was to the section power center. The circuit breaker panel for the continuous mining machine was replaced. This panel includes the circuit breaker, ground monitor package and ground fault package. The last calibration of the methane monitor on the continuous mining machine occurred on February 12, 2014.

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: The mine operator's programs, policies, and procedures were not sufficient to prevent anyone from being positioned between the continuous mining machine and the coal rib when tramming the machine from place to place.

Corrective Action: An Action Plan was submitted on March 7, 2014, to MSHA by the mine operator. The provisions of the plan are summarized as follows: Retraining on the topics of Red Zone, pinch points and entrapment awareness was conducted for underground employees. A proximity detection system was installed and operational on the continuous mining machine used on the H section (003 MMU) on March 15, 2014. By March 22, 2014, the continuous mining machine used on the A section also had a proximity detection system. Before the proximity detection systems were installed, the mine operator required a spotter be present to assist with the tramming of the continuous mining machine.

CONCLUSION

The victim was located in a pinch point created by the machine and the coal rib while tramming the continuous mining machine. The approved roof control plan prohibited anyone from being positioned between the continuous mining machine and the coal rib when tramming the machine from place to place.

Approved:

for Gregory B. Meikle
District Manager

07/29/2014
Date

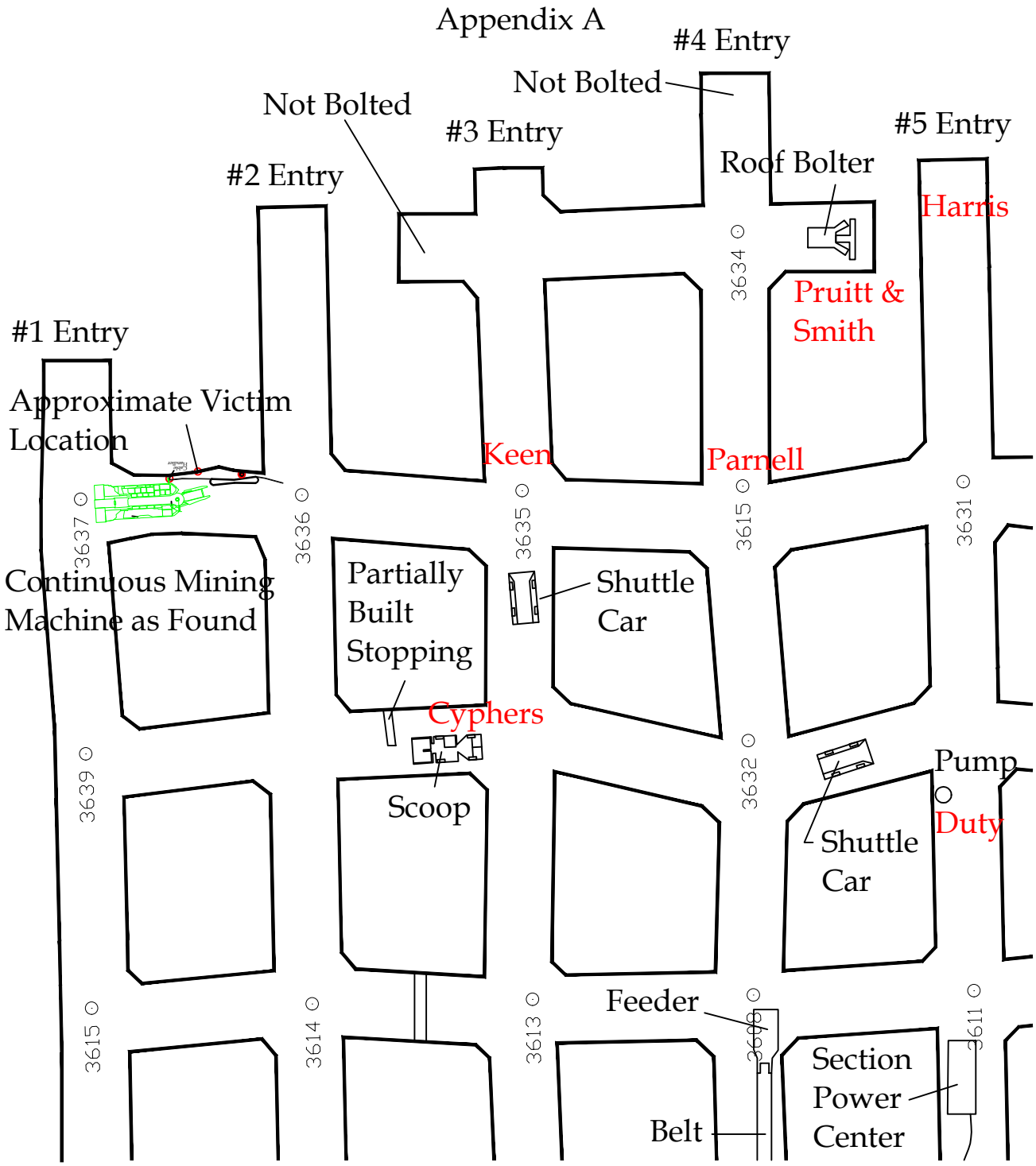
ENFORCEMENT ACTIONS

1) Section 103(k) Order No. 8211683 issued February 21, 2014, to Dominion Coal Corporation, Mine No. 30: An accident occurred at this operation on February 21, 2014, at approximately 15:42. As rescue and recovery work is necessary, this order is being issued, under Section 103(j) of the Federal Mine Safety and Health Act of 1977, to assure the safety of all persons at this operation. This order is also being issued to prevent the destruction of any evidence which would assist in investigating the cause or causes of the accident. It prohibits all activity at the Dominion Mine No. 30 until MSHA has determined that it is safe to resume normal mining operations in this area. This order applies to all persons engaged in the rescue and recovery operation and any other persons on-site. This order was initially issued orally to the mine operator at 16:10 and has now been reduced to writing.

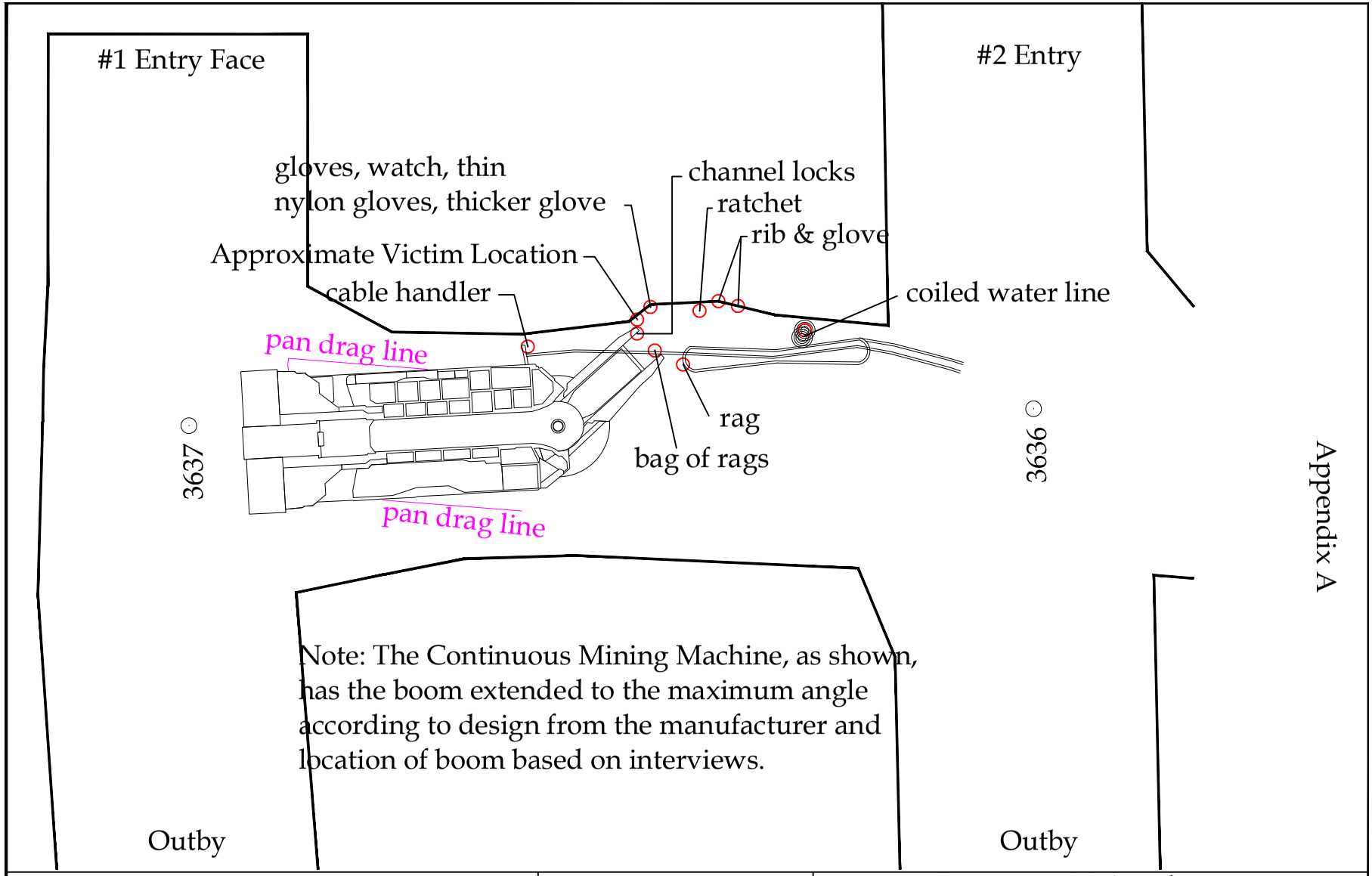
   The Section 103(k) order was modified 10 times during the investigation.

2) A 104(a) Citation, No. 8191354, was issued for a violation of 75.220(a)(1). The approved roof control plan was not being complied with. The plan requires that, "...No person shall be positioned between the continuous mining machine and the coal rib while tramming the machine from place to place..." While investigating a fatal accident that occurred on February 21, 2014, it was found that the continuous mining machine operator was pinned between the boom of the continuous mining machine and the coal rib while tramming the machine. The fatality occurred at about 3:37 p.m., between the #1 and #2 entry near spad 3636 on the H section (003 MMU).

Appendix A



H-Section 003-0 MMU	Legend 3634 ⊙ Survey Station Miners Names/ Location	Dominion 30 Accident Dominion Coal Corporation Mine No. 30 MSHA ID: 44-06748 Date: 2-21-14 Drawing Not to Scale



H-Section 003-0 MMU	Legend 3637 ⊙ Survey Station ⊙ Actual Location Point	Dominion 30 Accident Dominion Coal Corporation Mine No. 30 MSHA ID: 44-06748 Date: 2-21-14 Not to Scale

APPENDIX B – Persons Participating in the Investigation

The following people provided information and/or were present during the investigation.

Dominion Coal Corporation

John Kegley Jr.	General Manager - Coal
Casey B. Colley	Mine Superintendent
Timothy J. Thompson	Manager of Health and Safety
Greg Ratliff	Operations Coordinator (Mentor)
Charles Auville	Mine Foreman
Scott Deel	Shift Foreman
Jason Lawson	Chief Electrician
Todd Smith	Chief Maintenance Foreman
Carl Coleman	Safety Inspector
Patrick Artrip	Assistant Chief Engineer
Roger Vandyke	Engineer
Hardy Pence	Attorney
Eric L. Silkwood	Attorney
Erick Wright	Joy Global Representative

Virginia Department of Mines, Minerals and Energy (DMME)

Chris Whitt	Emergency Manager
Opie S. McKinney	Mine Inspector Supervisor
Tim E. Lyall	Mine Inspector
Danny Mullins	Mine Inspector
Terry A. Ratliff	Mine Inspector
Rusty Ward	Mine Inspector

Mine Safety and Health Administration (MSHA)

James A. Kiser	Assistant District Manager
Michael B. Colley	Supervisory Coal Mine Safety and Health Inspector
Delmer Hess	Supervisory Coal Mine Safety and Health Inspector
Terry Sheffield	Staff Assistant
Russell A. Dresch	Electrical Engineer
Stephen B. Dubina	Electrical Engineer

Mark A. Tuggle	Coal Mine Safety and Health Inspector (Roof Control / Impoundments)
Mark C. Hlywa	Coal Mine Safety and Health Inspector
Paul E. Smith	Coal Mine Safety and Health Inspector

Persons interviewed During the Investigation

Kenneth Harris	Section Foreman
Kevin Duty	CM-Service Electrician/Mechanic
Jeffery G. Keen	Shuttle Car Operator
James Cody Parnell	Shuttle Car Operator
Richard Smith	Bolter Operator
Robert D. Cyphers	Scoop Operator
Scott Deel	Shift Foreman
James Pruitt	Bolter Operator
Phillip Ward	CM-Service Electrician/Mechanic
Tommy Stump	Miner Operator
Wayne McClure	Belt Drive Electrician/Mechanic
Chris Reynolds	CM-Service Electrician/Mechanic
Casey B. Colley	Superintendent
Chuck Auville	Mine Foreman
Jason Lawson	Chief Electrician

APPENDIX C – Victim Information

Accident Investigation Data - Victim Information

Event Number: 4 4 1 3 7 9 7

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:
Arthur D. Gelentser III	*M*	*24*	*01 Fatal*

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death:	6. Date and Time Started:
a. Date: 02/21/2014 b.Time: 17:41	*a. Date: 02/21/2014 b.Time: 13:30*

7. Regular Job Title:	8. Work Activity when Injured:	9. Was this work activity part of regular job?
036 Continuous miner operator	*041 Moving equipment*	Yes X No

10. Experience	Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days
a. This Work Activity:	*2*	*26*	*1*	b. Regular Job Title:	*2*	*26*	*1*	c: This Mine:	*1*	*3*	*4*	d. Total Mining:	*5*	*26*	*0*

11. What Directly Inflicted Injury or Illness?	12. Nature of Injury or Illness:
077 Underground mining machines	*110 Asphyxia/strangulation/drowning/suffocat*

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: X | EMT: X | Medical Professional: | None:

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

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