

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Hoisting Accident  
February 7, 2013

Affinity Coal Company, LLC  
Affinity Mine  
Sophia, Raleigh County, WV  
I.D. No. 46-08878

Accident Investigators

Richard A. Hayhurst  
Coal Mine Safety and Health Inspector

Robert Hatfield  
District 4 Electrical Supervisor

Clifton C. Adkins  
District 4 Electrical Specialist

Joseph C. Mackowiak, PE  
Assistant District Manager, Technical Division

Originating Office  
Mine Safety and Health Administration  
District 4  
100 Bluestone Road  
Mount Hope, West Virginia, 25880  
David S. Mandeville, District Manager

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## OVERVIEW

On Thursday, February 7, 2013, at approximately 9:20 p.m., Edward L. Finney, a 43-year-old scoop operator was fatally injured when he was caught and pinned underneath a battery powered scoop at the bottom of a shaft where a 30 ton service hoist was utilized to transport miners and supplies into and out of the mine. The accident occurred as the victim, who was operating the scoop, and two other miners were attempting to unload trash from the scoop bucket onto the hoist deck. While the scoop bucket was positioned on the hoist deck, the hoist began to elevate unexpectedly, causing the scoop to be suddenly raised off of the mine floor and then dropped when the scoop's bucket slipped off of the hoist deck. The victim, who was positioned in the operator's compartment of the scoop when the hoist began to elevate, was found underneath the operator's compartment of the scoop after the accident.

## GENERAL INFORMATION

The Affinity Mine is an underground mine operated by Affinity Coal Company, LLC, and is located near Sophia in Raleigh County, West Virginia. The mine operates in the Pocahontas No. 3 coal seam, which averages approximately 48 inches in thickness, and is accessed by three vertical shafts and one slope. The mine operates three mining sections and utilizes the room and pillar method of mining. The active sections are developed with continuous mining machines and shuttle cars, and the coal is transported to the surface via a conveyor belt system. The mine employed 214 people at the time of the accident, of which 198 worked underground and 16 worked on the surface. The mine produces an average of 6,750 raw tons per day, working on a schedule of two production shifts and one maintenance shift in a 24 hour period.

The mine liberates 156,764 cubic feet of methane in a 24 hour period.

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

Gary Patterson.....President  
Mike Campbell.....Superintendent  
Jeff Shrewsbury.....Mine Foreman  
Rick Ashley.....Safety Director

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on December 29, 2012. The Non-Fatal Days Lost (NFDL) injury incident rate for the operator for the year of 2011 was 4.21, compared to a national rate of 3.36.

## DESCRIPTION OF ACCIDENT

On the day of the accident, Ron Short, Hoist Operator, performed the required daily examination of the 30-ton service hoist at 8:00 a.m. Short indicated in the examination record book that the hoist was in safe operating condition. The hoist was also examined by William Lusk, Certified Electrician, on the day of the accident as part of the weekly examinations required for electrical equipment. Again, no hazards associated with the hoist were noted in the record book for the weekly electrical examinations.

Steve Colo III, Construction Foreman, held a brief meeting with Edward Finney, Scoop Operator, Brian Southern and Chris Donaldson, both outby Utility Men, prior to the men entering the mine on the evening shift on February 7, 2013.

Colo informed the crew of their job duties for the upcoming shift. He instructed the crew to pick up trash along the old intake entries on the west side of the service hoist, using the outby battery-powered scoop and a metal bucket insert. The scoop bucket insert, once filled with trash, was to be placed on the 30-ton service hoist and sent to the surface to be unloaded. According to Colo's instructions, this cycle was to be repeated until all of the trash was removed from the designated area of the mine.

The mine's communication and tracking system indicated that Finney, Southern, and Donaldson arrived underground at the bottom of the service shaft at 3:06 p.m. to begin their work. The outby scoop they were to use was normally located on the east side of the service hoist, but it had to be moved across the hoist platform, to the west side, by opening both the east and west side gates. Once on the west side of the hoist, the scoop and men would then travel through a set of air lock doors and enter the intake air course where they were to pick up trash.

Once in the intake air course, the crew picked up trash and placed it in the scoop bucket insert, where it was then taken to the service hoist and sent out of the mine. Southern stated in interviews that three or four loads of trash had been taken from the intake entries to the hoist prior to the time the accident occurred.

A review of the mine's electronic tracking system report shows that the scoop arrived at the bottom of the service shaft, along with Finney, Southern and Donaldson at 8:54 p.m. The tracking system also shows that three previous trips to the service hoist had been made by the crew prior to that time.

Finney was operating the scoop and was moving the machine forward, bucket first, toward the service hoist to unload a bucket insert full of trash. As he approached the hoist, he positioned the scoop bucket on top of the hoist deck so that he could push the insert out of the scoop's bucket and onto the hoist. Donaldson and Southern were standing on each side of the scoop observing the operation. Donaldson, who was standing on the left side of the scoop and facing towards the hoist, stated that as the insert was being pushed out of the scoop bucket and onto the hoist, the hoist warning lights started flashing, indicating that the hoist was going to start. Donaldson then yelled "run, get out", and ran past the scoop as the hoist was starting to elevate up the shaft, picking the bucket end of the scoop off of the mine floor.

Southern, standing on the operator's side of the scoop, observed that the warning lights were flashing after Donaldson had yelled and warned everyone to run. Southern immediately yelled for Finney to "get out of the scoop, its starting up." Southern stated that the front end of the scoop was already approximately four

feet off of the mine floor when he started running to get clear of the scoop. When Southern was behind the scoop, and out of danger, he turned to see if Finney had exited the scoop. He stated that Finney appeared to be falling, head first, to the mine floor about the same time the scoop bucket slipped off the hoist deck and fell to the ground, which created a lot of dust, making it difficult to see clearly. Southern immediately ran to check Finney's condition and found him to be unresponsive, as he was located underneath the operator's deck of the scoop. Glenn Paugh, Maintenance Foreman, was working at the No. 2 High Voltage Disconnect Box when the accident occurred, and arrived at the scene approximately 4 minutes after the accident, and saw that Finney had received fatal crushing injuries. Emergency Medical Technician (EMT) Larry Reedy was 11 crosscuts away along the No. 1 Conveyor Belt at the time of the accident and arrived at the hoist at 9:24 p.m., as indicated by the Mine Tracking System. EMT Chris Cadle was working on No.1 unit, received a call and arrived at the Hoist at 9:48 p.m. as indicated by the Mine Tracking System. Paugh energized the scoop in order to lift it off of Finney. Paugh, Reedy, and Cadle placed Finney on a backboard and transported him to the 19 man hoist on a four wheeled, rubber-tired mantrip, where he was then taken to the surface. The Jan Care Ambulance Service had arrived at the mine site prior to the victim reaching the surface. Finney was transported via ambulance to the Blue Ridge Funeral Home in Beckley, WV, where Lisa Sadler, Medical Examiner, pronounced him dead at 9:50 p.m.

## **INVESTIGATION OF THE ACCIDENT**

Zachary Bowman, Dispatcher at the Affinity Mine, notified MSHA of the accident at 9:37 p.m., on Thursday, February 7, 2013, via a telephone call to the MSHA notification hotline. Joe Mackowiak, Assistant District Manager for Technical Programs, was notified of the accident by the MSHA Call Center at 9:42 p.m. Mackowiak immediately called the Affinity Mine at 9:45 p.m. and spoke to Bowman concerning the accident. Mackowiak promptly issued a verbal 103(j) Order to Bowman, at 9:50 p.m. The affected area of the order was the 30-ton service hoist and the surrounding area. Mackowiak called William Bane, Coal Mine Safety and Health Inspector and Accident Investigator; Fred Wills, Field Office Supervisor; and Rick Hayhurst, Coal Mine Safety and Health Inspector and Accident Investigator to dispatch them to the mine.

Upon arrival at the mine site, Bane 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 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 February 14, 2013, at the Tamarack Conference Center, in Beckley, West Virginia.

## **DISCUSSION**

### **Experience and Training**

Finney had approximately 13-years of total mining experience. A review of his training records, on file with the company, revealed that he began his employment at the Affinity Mine in July 2012. His West Virginia miner's certification (No. 2-4728) was issued in 1999. According to company records, Finney received experienced miner training on July 10, 2012, and task training for a Fairchild scoop on July 23, 2012. According to the review conducted of Finney's records, he had received task training for the specific job he was performing at the time of the accident as a scoop operator.

Additionally, Finney received task training for a continuous mining machine on July 20, 2012, for a roof bolting machine on August 2, 2012, and training for a CSE Model SRDL self-contained self-rescuer which did not contain the date that the training was completed. The review of Finney's training records did not indicate any instance where required training was not provided. However, four non-contributory 104(a) citations were issued due to improperly documenting the required information on the MSHA Forms 5000-23, which consisted of missing dates for the training given, signatures, and other miscellaneous information.

A review of training records for Chris Donaldson, utility person, was also conducted. Two violations, both considered non-contributory to the accident, were identified from this review and one citation was issued to the operator for not properly completing the MSHA 5000-23 certificate of training form. The date the training was completed, the type of training received, and the MSHA Mine I.D. sections of the form were not completed as required. A separate citation was also issued for using a person, who had not been certified as an MSHA approved instructor, to perform part of the training that consisted of the mine tour.

A review of the training records for Brian Southern, Utility Person, was also conducted. Two violations, also non-contributory to the accident, were identified from this review. One violation resulted from an improperly completed MSHA 5000-23 certificate of training form, and the other violation was issued for not providing a date on the form to show when the training was completed. Appropriate citations were issued to the operator for these violations.

A review of training records for Levi Woods, hoist man/loader man, who was working on the surface at the time of the accident, was conducted and no deficiencies or violations were identified.

### **Equipment**

The Fairchild scoop, Model 35C-WH, No. 9, Serial Number T339-572-12-10, involved in the accident was thoroughly inspected as part of the investigation. The inspection did not find any mechanical or electrical deficiencies and there were no violations identified as contributory to the accident. The No. 9 scoop was primarily used in areas of the mine outby the working sections and the scoop did not have, and was not required to have, a canopy installed over the operator's compartment.

The 30-ton service hoist involved in the accident, Frontier-Kemper/Lake Shore Hoist System, serial number 10.05-0119, Model Number LS-SE4-120-1.5, was also inspected after the accident. The inspection of the hoist found that the magnetic actuator which is normally mounted on the west side gate was not properly installed to assure the safe operating condition of the hoist system. The magnetic actuator was not mounted in its proper location on the safety gate, but instead was lying on the mine floor.

The hoist was programmed such that when the run switch was activated, there was a five (5) second delay before the hoist would begin to move.

### **Accident Scene and Preservation of Evidence**

The No. 9 Fairchild scoop involved in the accident appeared to be in its original position at the time of the accident. The scoop deck was observed to be in a raised position and information obtained from the interviews revealed that it had been raised to allow for the removal of the victim. After the accident, the service hoist had traveled to the surface, but was subsequently returned to the shaft bottom. Upon being returned to the shaft bottom, the hoist platform stopped short of the mine landing because it came into contact with a mine track rail. The rail was apparently broken by the impact of the scoop as it fell from the hoist deck to the mine floor during the accident. Debris and trash from the scoop bucket insert that was being put onto the hoist deck was found beside, and on



top of the scoop after the accident. The metal scoop bucket insert ended up in the shaft sump area, underneath the hoist deck, along with other debris that was in the bucket insert.

It was apparent during the investigation that the magnetic actuator of the safety switch, which should have been mounted on the west side gate, was not properly installed on the gate in order to maintain the safe operation of the hoist because it was found lying on the mine floor. The two-part safety switch consists of a magnetic actuator that is mounted on the safety gate, and a sensor switch that is installed on the gate post. When properly installed, the gate switches send an electrical signal to the Program Logic Control (PLC) that indicates that the gate is either open or closed. When a signal is received by the PLC indicating that the gate is closed, the hoist can be safely operated, and inversely, when a signal is received that the gate is open, the hoist will not function. Both, the magnetic actuator and the sensor switch must be installed and properly adjusted for the hoist to operate safely. When properly installed and operating, the safety switch protects persons traveling on or off of the hoist platform from hazards related to the movement of the hoist (raising or lowering).

Both Southern and Donaldson could not understand why the hoist moved with the West safety gate open. They were trained that work could be performed at the hoist platform while the gates are open because the gate safety switches prevent hoist movement.

The gate safety switches were not maintained in a manner to assure the safe operation of the service hoist. The magnetic actuator of the safety switch had been unbolted from its proper location on the gate and was installed (taped) to the gate sensor switch, which defeated (by-passed) the intended purpose of the safety features and allowed the hoist to operate with the landing gate open. Taping the two parts of the switch together sends an electrical signal to the PLC that falsely indicated the gates were closed and the hoist was ready to operate safely.

Additionally, tamper resistant hardware, originally provided for the gate switch installation, was not used. Common hex head type screws were used to mount the gate switch, which can be easily removed by anyone using common tools, such as pliers or wrenches, to manipulate or by-pass the functions of the switch.

The magnetic actuator of the safety switch for the west side gate and black electrical tape were found lying on the mine floor near the gate post. The West gate was opened and it was physically located approximately 16 feet from where the magnetic actuator was found lying on the mine floor.

When the accident occurred, the magnetic actuator had been taped to the gate sensor switch. The magnetic actuator of the safety switch was untaped and found on the mine floor during the accident investigation (see top photo, Appendix D). Interviews indicated the component was untaped after the accident by maintenance foreman Glenn Paugh, a violation of 30 CFR § 50.12. The MSHA District Manager did not grant an exception to alter the accident scene. Accordingly, a non-contributory citation was issued to the operator for altering the accident scene.

Interviews conducted jointly by MSHA and the West Virginia Office of Miners Health, Safety, and Training failed to reveal who bypassed the safety switch.

A drawing of the accident scene is included in Appendix C of this report.

## 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 prevented the accident from occurring.

*Root Cause:* The gate safety switches, provided for the mine level, west side landing gate, were tampered with and were not maintained in a manner to assure the safe operation of the service hoist. The magnetic actuator had been removed from its proper location on the gate and was installed (taped) to the gate sensor switch, which defeated (by-passed) the intended purpose of the safety features and allowed the hoist to operate with the landing gate open. Additionally, tamper resistant hardware, originally provided for the gate switch installation, was not used. Common hex head type screws were used to mount the gate switch, which can be easily removed by anyone using common tools, such as pliers or wrenches, to manipulate or by-pass the functions of the switch.

*Corrective Action:* The following Safeguards were issued to maintain the Service Hoist in safe operating condition and to prevent reoccurrence:

Safeguard Number: 7224752 requires that all gate safety switches on all hoists at this mine to be installed using tamper resistant mounting fasteners.

Safeguard Number: 7224753 requires that all gate switches be installed and maintained in proper operating condition on all hoists at this mine.

Safeguard Number: 7224754 requires that the return to surface feature be eliminated from the Service Hoist function.

Each of the four hoist landing gates, two on the surface and two at mine level, were equipped with two separate gate safety switches installed with tamper resistant hardware. Each gate switch was equipped with a “normally open” and a “normally closed” contact. The switch contacts are monitored by independent safety circuits to improve the safety integrity of the hoist gate electrical system. The gate switches and magnetic actuators were secured in place with tamper resistant mounting hardware, which requires a special tool for removal .

The hoist was programmed with an Automatic Recall Function that allowed the hoist to return to the surface automatically after the hoist was inactive and had been released at mine level. This return to surface feature was eliminated.

The hoist was originally programmed such that when the run switch was activated, there was a five (5) second delay before the hoist would begin to move. This feature was increased to a 15 second delay, which allows more time to clear the hoist if a failure of the gate safety switches would occur.

Video cameras and monitors were installed at mine level and on the surface to monitor and record all hoist activity. All persons at this mine were retrained on the Hoist Safety Operating Procedures.

## CONCLUSION

The accident occurred because the mine level West side landing gate safety switches of the service hoist were tampered with and the hoist was being operated in an unsafe condition. While the gate safety switches were inoperative, miners and equipment were allowed to work on the hoist which exposed them to the hazardous condition. The hoist initiated movement with little to no warning while the safety gate was in the open position.

Approved By:



David S. Mandeville  
District Manager  
Coal Mine Safety and Health, District 4



Date

## ENFORCEMENT ACTIONS

1. A 103(j) Order No. 7166606 was issued verbally to Affinity Mine, on February 7, 2013, 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. 7224752 was issued to Affinity Mine, on March 04, 2013. A fatal accident occurred at this mine on February 7, 2013, involving the operation of the service hoist. Evidence indicated during the investigation that a gate safety switch had been tampered with prior to the accident. This is a notice to provide safeguard(s) requiring tamper resistant mounting fasteners attaching all gate safety switches to be installed and maintained on all hoists at this mine.
3. A 314(b) Safeguard No. 7224753 was issued to Affinity Mine, on March 04, 2013. A fatal accident occurred at this mine on February 7, 2013, involving the operation of the service hoist. The service hoist operated unexpectedly with the west gate in the open position. The gate was provided with switches designed to prevent persons from being exposed to the moving hoist. This is a notice to provide safeguard(s) requiring gate safety switches be installed and maintained in proper operating condition at all hoists at this mine.
4. A 314(b) Safeguard No. 7224754 was issued to Affinity Mine, on March 04, 2013. A fatal accident occurred at this mine on February 7, 2013, involving the operation of the service hoist. The accident investigation revealed that this automatic hoist has a return to home feature that could inadvertently cause the hoist to return to the surface. If a gate switch is tampered with, this feature would cause the hoist to move after five (5) minutes without operator input, causing unsafe hoist operation. This is a notice to provide safeguard(s) requiring the return to home feature of the hoist control programming to be eliminated.
5. A 104(a) Citation No. 7281886 was issued to Affinity Mine for a violation of 30 CFR § 75.512. The 30 ton service hoist, in service at this mine for the transportation of equipment, supplies, and mine personnel, was not being maintained to assure safe operation of the hoist. The two (2) part switch, consisting of (1) a switch sensor mounted on the gate post, and (2) a magnetic actuator, installed on the safety gate, were not maintained to prevent the hoist from operating when the gate is open. The gate magnetic actuator had been removed from the gate and was found lying

on the mine floor, along with electrical tape. According to testimony, the magnetic actuator was normally installed on the gate to signal the PLC (Program Logic Control) that the gate is either open or closed. When the gate is closed, the hoist will operate normally and when the gate is open, the hoist will not function. The gate magnetic actuator had been removed from the gate and was taped to the switch sensor on the gate post, defeating the intended purpose of the switch, allowing the hoist to operate with the gate in the open position. While using a scoop to push an insert of trash onto the service hoist, at the shaft bottom, the hoist moved with the gate in the open position, lifted and dropped the scoop, causing fatal crushing injuries to the scoop operator.

**APPENDIX A**  
Persons Participating in the Investigation

**Affinity Coal Company, LLC**

Donnie Jones.....	Corporate Safety
Larry Hoosier .....	Safety Department
Ed Toppings .....	Corp. Maintenance
Eric Clendennin.....	Safety Manager
Rick Waddell .....	Corporate Safety
Barry Elliot.....	Maintenance Foreman
Ron Short .....	Hoist Operator
William Lusk .....	Electrician
Steve Colo III .....	Construction Foreman
Chris Donaldson .....	Utility
Brian Southern.....	Utility
Glenn Paugh.....	Maintenance Foreman
Larry Reedy .....	Emergency Medical Technician
Chris Cadle .....	Emergency Medical Technician

**West Virginia Office of Miners Health, Safety and Training**

McKennis Browning.....	Inspector-at-Large
Steve Lafferty .....	Assistant Inspector-at-Large
James Griffin.....	Diesel Inspector
Kendall Smith .....	Electrical Inspector
Mike Hale .....	Electrical Inspector
Donald McKenzie .....	Inspector

**Mine Safety and Health Administration**

Richard Hayhurst.....	Inspector/ Accident Investigator
William Bane .....	Inspector/ Accident Investigator
Robert Hatfield.....	District Electrical Supervisor
Joseph C. Mackowiak, PE.....	Assistant District Manager Technical
Fred Wills.....	Field Office Supervisor
Thomas D. Barkand .....	Electrical Engineer, Tech Support
Mike Browning.....	Mine Safety and Health Specialist (EFS)
Clifton C. Adkins Sr.....	Electrical Specialist
Harold Jeffery .....	Electrical Specialist



## APPENDIX B

### Victim Information

#### Accident Investigation Data - Victim Information

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



Event Number: 6 2 9 4 5 8 7

#### Victim Information:

1. Name of Injured/Ill Employee: <i>Edward L. Finney</i>		2. Sex: <i>M</i>	3. Victim's Age: <i>43</i>	4. Degree of Injury: <i>01 Fatal</i>	
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 02/07/2013 b. Time: 21:50</i>				6. Date and Time Started: <i>a. Date: 02/07/2013 b. Time: 15:00</i>	
7. Regular Job Title: <i>028 Scoop Operator</i>		8. Work Activity when Injured: <i>073 Operate Equipment</i>		9. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
10. Experience a. This Work Activity:	Years <i>0</i>	Weeks <i>1</i>	Days <i>4</i>	b. Regular Job Title:	Years <i>0</i>
					Weeks <i>1</i>
					Days <i>4</i>
				c. This Mine:	Years <i>0</i>
					Weeks <i>30</i>
					Days <i>0</i>
11. What Directly Inflicted Injury or Illness? <i>077 Scoop</i>			12. Nature of Injury or Illness: <i>170 Crushing</i>		
13. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>					
14. Company of Employment: (If different from production operator) <i>Operator</i>					
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input checked="" type="checkbox"/>					
16. Part 50 Document Control Number: (form 7000-1)			17. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i>		

#### 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 <input type="checkbox"/> No <input type="checkbox"/>	
10. Experience a. This Work Activity:	Years	Weeks	Days	b. Regular Job Title:	Years
					Weeks
					Days
				c. This Mine:	Years
					Weeks
					Days
11. What Directly Inflicted Injury or Illness?			12. Nature of Injury or Illness:		
13. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>					
14. Company of Employment: (If different from production operator) <i>Operator</i>					
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>					
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 <input type="checkbox"/> No <input type="checkbox"/>	
10. Experience a. This Work Activity:	Years	Weeks	Days	b. Regular Job Title:	Years
					Weeks
					Days
				c. This Mine:	Years
					Weeks
					Days
11. What Directly Inflicted Injury or Illness?			12. Nature of Injury or Illness:		
13. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>					
14. Company of Employment: (If different from production operator) <i>Operator</i>					
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>					
16. Part 50 Document Control Number: (form 7000-1)			17. Union Affiliation of Victim:		

[illegible]

## APPENDIX D - Photos of Safety Switches



Safety Switch Actuator on the Ground During Accident Investigation



New Safety Switch Actuators Required by MSHA (post accident)  
Installed with Tamper Proof Bolts