May 16, 2008

Fatal Mine Electrocution Investigation Report
Aracoma Coal Company, Inc.
Aracoma Alma No. 1
Permit No. U-5006-99

Region Three – Danville Office
137 Peach Court, Suite 2
Danville, WV 25053
Eugene White, Inspector-at-Large
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General Information

Aracoma Coal Company, Inc. was permitted to operate the Aracoma Alma No. 1 mine on January 25, 2000. The mine employs 145 people on three shifts. Four continuous mining machine underground units are currently producing coal from the Alma Seam. A swing shift rotation is used for all production employees. Personnel and supplies are primarily transported by battery powered track mounted and rubber tired vehicles. Some diesel powered rubber tired vehicles are also used.

Mr. Nathan L. Dove a 24 year old certified electrician from Chattaroy, WV had been employed at the Aracoma Alma No. 1 mine for approximately 2 years and had approximately 4 years total mining experience. Mr. Dove received annual refresher training on January 1, 2008 and his electrical retraining was current through December 2008.

Mr. Dove was electrocuted on Friday, May 16, 2008 between 8:45 and 9:00 p.m. The accident occurred while Mr. Dove was apparently attempting repairs on a shuttle car on the No. 3 Section.

Eugene White, Inspector-at-Large, for the Office of Miners’ Health Safety and Training (OMHST) Danville Office was notified by the West Virginia Mine Emergency Call Center at approximately 9:30 p.m. The Logan County Emergency Ambulance Service Authority (911) received a call from the Alma No. 1 mine at 9:09 p.m. The West Virginia Mine Emergency Call Center was then notified at 9:14 p.m. A joint investigation with the Mine Safety and Health Administration (MSHA) was immediately initiated.

An investigation control order, 22A-2-68 was issued verbally by Eugene White, Inspector-at-Large at 9:35 p.m. to Lawrence Lester, superintendent for the mine.

Description

The No. 3 Section evening shift production crew entered the Alma No. 1 mine on Friday, May 16, 2008 at their normal starting time of 3:00 p.m. under the direction of section foreman, Dave R. Runyon. They arrived on the No. 3 Section at approximately 3:20 p.m. Coal production began in the No. 1 entry face at approximately 3:45 p.m. Joey Kennedy was operating the left side continuous mining machine at that time. Two continuous mining machines are available, but not operated simultaneously. Sweep ventilation is utilized on the No. 3 Section. Mining then continued in the No. 3 entry face at 4:40 p.m. The right side continuous mining machine operated by Robbie Cantrell then began mining the No. 7 entry face at 5:50 p.m. The crosscut from No. 3 to No. 2 entry was then mined by the left side continuous mining machine at 6:10 p.m. It was at this time that the No. 2 (left side) shuttle car was moved to the middle and re-anchored due to the No. 1 (middle) shuttle car being inoperable. The next place mined was the No. 4 entry face by the left side continuous mining machine where the accident ultimately occurred.
Based on testimony from left side continuous mining machine operator, Joey Kennedy, the OMHST estimates that mining of the No. 4 entry face was nearing completion between 8:35 and 8:50 p.m. when the No. 2 Joy 10SC32 (left side) shuttle car being loaded by the continuous mining machine was said to have lost power. Shuttle car operator Josh Tomblin testified that the No. 2 (left side) shuttle car lost all power while being loaded. Tomblin and Kennedy then sought the assistance of section electrician, Nathan L. Dove, who was located in the crosscut from No. 4 entry to No. 5 entry immediately outby where the No. 2 (left side) shuttle car was being loaded. Mr. Dove was said to have just finished repairing another shuttle car cable in the crosscut from No. 4 entry to No. 5 entry. According to Tomblin and Kennedy, Mr. Dove proceeded immediately to the No. 2 (left side) shuttle car.

According to Tomblin and Kennedy, Dove and Tomblin then began to pull the cable from the shuttle car cable reel in an attempt to locate a problem. Tomblin and Kennedy testified that they had smelled what they believed to be a cable burning in the shuttle car cable reel. Kennedy estimated that Dove and Tomblin pulled approximately 30 feet of cable from the reel and observed that the cable was damaged very near where it enters the cable reel. The cable damage was located between the cable restraining clamp and where the cable leads connect to the cable reel leads. Investigators discovered that the cable reel cover shield had been removed along with the cable restraining clamp.

At this point section foreman, Dave R. Runyon, is said to have arrived at the shuttle car where Dove and Tomblin had identified the problem. Dave R. Runyon testified that he had been on the right side of the section where he encountered someone who told him that the No. 2 (left side) shuttle car had lost power behind the left continuous mining machine in the No. 4 entry face. Dave R. Runyon could not remember who told him the No. 2 (left side) shuttle car was down.

Dave R. Runyon testified that he assumed that the No. 2 (left side) shuttle car was de-energized and locked out at the section power center when he arrived. Dave R. Runyon, Tomblin and Kennedy all testified that Dove called to Dave R. Runyon and asked him to look at the damaged cable near the cable reel before he was to begin repairs. Tomblin and Kennedy testified that neither Dove nor anyone else had gone to the section power center to make sure that the No. 2 (left side) shuttle car was de-energized and to appropriately lock out its power source before the cable was pulled from the reel. Right side continuous mining machine operator, Robbie Cantrell, and right side shuttle operator, David M. Runyon, also visited the No. 4 entry where the No. 2 (left side) shuttle car was down before section foreman, Dave R. Runyon, arrived. Cantrell and David M. Runyon quickly determined that they should proceed to the right side of the section and begin mining in the No. 6 entry face since production had ceased in the No. 4 entry.

Dave R. Runyon testified that after quickly reviewing the damaged shuttle car cable that he immediately began walking in the outby direction in No. 4 entry. This was confirmed by Tomblin and Kennedy. Dave R. Runyon testified that for reasons he could not explain that he turned to look back at the No. 2 (left side) shuttle car as he was walking in the outby direction in the No. 4 entry. Dave R. Runyon testified that he saw Dove leaning into the No. 2 (left side) shuttle car reel where he was obviously receiving an electrical shock. Dave R. Runyon testified that he immediately screamed at Kennedy
who was close to Dove and said "get him out of it". This was confirmed by Tomblin and Kennedy.

Kennedy testified that he first grabbed Dove's light cord in an attempt to pull him from the power. Kennedy stated that Dove's hat and cap light pulled away and separated from his body. Kennedy stated that he then grabbed one of Dove's mining belt suspenders and pulled him backward from the shuttle car with both tumbling to the mine floor. Within seconds Tomblin ran to the section power center to de-energize the shuttle car. It was later determined that Tomblin tripped breakers at the section power center on the opposite side from where the No. 2 (left side) shuttle car breaker was located. Right side shuttle car operator, David M. Runyon, testified that he went by the section power center shortly after learning of the accident where he found the No. 2 (left side) shuttle car breaker still in the energized position, and he immediately tripped the breaker. David M. Runyon stated that he ran to the section phone and called outside for an ambulance after a quick visit to the accident site.

Dave R. Runyon and Kennedy began CPR immediately. Dove was placed on a back board type stretcher and carried to the end of the track within moments. Intermittent stops were made along the way to continue CPR. Dove was then transported to the Logan Regional Medical Center where he was declared expired.

Findings of Fact

The No. 2 (left side) shuttle car also referred to as the left shuttle car on the No. 3 Section involved in the accident was a Joy 10SC32, operator's side shuttle car, serial no. ET175004. Two other shuttle cars were also utilized and were identical. The No. 1 (middle) shuttle car also referred to as the middle shuttle car was locked out but not tagged and was undergoing repairs at the time of the accident.

Upon arrival OMHST investigators found the No. 2 (left side) shuttle car cat head still plugged and latched into a 480 volt receptacle at the section power center. The No. 2 (left side) shuttle car's circuit breaker and ground fault relay at the section power center were found in the tripped position.

The accident occurred in the No. 4 entry inby the last open crosscut approximately 33 feet 10 inches inby spad no. 5866.

The section power center which provided power for the No. 2 (left side) shuttle car was located in the adjacent No. 3 entry approximately 100 feet outby the last open crosscut. The walking distance from the No. 2 (left side) shuttle car location in the No. 4 entry to the section power center in the No. 3 entry would have been no more than 200 feet.

The mining height in the area of the accident and the section power center was approximately 6 feet. The mining width at the accident scene was 20 feet.

The power provided to the No. 2 (left side) shuttle car from the section power center was 480 volts AC.
The No. 2 (left side) shuttle car was fully loaded and preparing to leave the continuous mining machine in route to the dumping point when it was said to have lost power.

Left side continuous mining machine operator, Joey Kennedy, and left side shuttle car operator, Josh Tomblin, testified that neither Nathan Dove nor anyone else traveled to the section power center to see that the No. 2 (left side) shuttle car was de-energized and locked and tagged out before the cable was pulled from the shuttle car cable reel.

A non contact voltage detector (commonly referred to as a tic tracer) was found at the accident location. It was tested and found to be inoperative.

The No. 2 (left side) shuttle car circuit breaker at the section power center was found to be functioning properly when tested by OMHST and MSHA electrical inspectors. The following tests were performed by OMHST and MSHA electrical inspectors on the No. 2 (left side) shuttle car circuit breaker at the section power center:
- A phase to ground check was made on all 3 phases of the No. 2 (left side) shuttle car circuit breaker.
- A ground fault resistance test was made.
- A phase to ground voltage test was made.
- A phase to phase voltage test was made.
- A ground monitor test was made.

The No. 2 (left side) shuttle car was found to be functioning properly when tested by OMHST and MSHA electrical inspectors. The following tests were performed:
- A ground monitor test.
- An open phase circuit test.
- A volt to ground test.

All three shuttle cars utilized on the active No. 3 Section were Joy 10SC32 standard shuttle cars.

There were 8 people on the No. 3 Section from the time the No. 2 (left side) shuttle car lost power until the accident. Based on testimony from all interviewed they were located as follows from the time the No. 2 (left side) shuttle car lost power until the accident occurred.

- Joey Kennedy was at No. 2 (left side) shuttle car where the accident occurred.
- Josh Tomblin was at No. 2 (left side) shuttle car where the accident occurred.
- Kevin Justice was operating a roof bolting machine in the No. 7 entry face.
- Greg Hensley was operating a roof bolting machine in the No. 7 entry face.
- David M. Runyon visited the No. 2 (left side) shuttle car location shortly after it lost power and then left for the No. 6 entry face to operate the right side shuttle car.
- Robbie Cantrell visited the No. 2 (left side) shuttle car location shortly after it lost power and then left for the No. 6 entry to operate the right side continuous mining machine.
- E. J. Clay was located in the No. 7 entry near the roof bolting machine.
- Dave R. Runyon was on the right side of the section traveling toward the No. 4 entry.
Conclusion

The victim was performing electrical repairs on a shuttle car trailing cable and the power source had not been disconnected, locked out and suitably tagged. The accident occurred when the victim attempted to cut one of the phase leads (white power lead) at the shuttle car cable reel.

Enforcement Actions

The following enforcement actions were taken as a result of the investigation.

A non-assessed control order was issued in accordance with Chapter 22A, Article 2, Section 68 of the West Virginia Code to preserve evidence following the accident.

A total of nine (9) violations were issued during this investigation. One (1) violation was determined to have contributed to the occurrence of the accident and eight (8) were non-contributing.

The following is the contributing violation:
(Violation 4085) Chapter 22A, Article 2, Section 40(19): The #2 shuttle car being operated on the active #3 section located in the #4 entry was not locked and tagged out from its 480 volt power source while electrical work was being performed on the 480 volt cable near the cable reel area of the #2 shuttle car. The failure to lock and tag as required resulted in a miner coming into contact with an energized cable causing the fatal accident.

The following are the non-contributing violations:
(Violation 4086) Chapter 22A, Article 2, Section 40(73): The #16 circuit in the #3 section transformer was not being properly maintained as required under 22A-2-40(73). This is a 480 volt 225 amp breaker with a instantaneous short circuit range of 200-1500 amps. This circuit is provided with a GM-8000 ground check circuit. Manufacturers require an arc trap to be installed in series with the ground wire inside of the power center. This prevents inter-machine arcing. The arc trap was not installed in this circuit.

(Violation 4087) Chapter 22A, Article 2, Section 40(19): The #1 shuttle car being used on #3 section was not tagged out. This shuttle car was located in #5 entry. Electrical work was being performed on the 480 volt cable reel. The cathead was locked out at the transformer. There was not a danger lock out tag attached to this cathead to identify who and when circuit was locked out. Both lock and tag are required while performing electrical work.

(Violation 4088) Chapter 22A, Article 2, Section 40(43): The #2 shuttle car being used on #3 section did not have the outer shell of the 480 volt cathead properly grounded.
This circuit is being monitored by a GM-8000 ground check circuit. Which is a wireless monitor system. This system requires the internal ground strap to be removed. To isolate the outer shell to prevent shorting out the monitor system. The outer shell has to have an external ground shunt from the outer shell back to section transformer frame ground, to assure proper grounding. The shell has an external ground shunt but it was not hooked to transformer for proper grounding.

(Violation 4089) Chapter 22A, Article 2, Section 40(6): The section water pump which is a stationary piece of equipment being used on #3 section was not being provided with a dry insulated platform in front of the 480 volt starter box at this pump. This could cause a potential shock hazard.

(Violation 4547) Chapter 22A, Article 2, Section 4(9): The number 1 working face on the active number 3 section has 0 cubic feet of air per minute; the number 2 working face on the active number 3 section had 0 cubic feet of air per minute; the number 3 working face on the active number 3 section had 0 cubic feet of air per minute; the number 3 crosscut left on the active number 3 section had 0 cubic feet of air per minute; the number 5 working face on the active number 3 section has 1475.5 cubic feet of air per minute; and the number 6 working face on the active number 3 section has 1505 cubic feet of air per minute. All these were less that the required minimum of 3000 cubic feet of air per minute.

(Violation 4548) Chapter 22A, Article 2, Section 40(67): The circuit breakers at the power center were not marked so as to identify the equipment that were energizing.

(Violation 4549) Chapter 22A, Article 2, Section 4(c): Properly installed and adequately maintained line brattice or other approved devices were not provided from the last open crosscut to the working face of the number 3 entry. In that the curtain did not extend to the outby corner in the last open crosscut.

(Violation 5901) Chapter 22A, Article 2 Section 40(67), Title 36, Series 18 Section 4: The mine operator did not maintain the section equipment on the active number 3 section in safe condition in that there was no uniform means of identifying the circuit breakers on the section power center. The identifications on the power center circuit breakers do not correspond with the weekly or monthly examination records and there is not a uniform means of identifying a particular circuit breaker to a particular machine on the section.
Monday, June 09, 2008
Eugene White, Inspector at Large
WVOMHS&T, Region 3
137 Peach Court Suite #2
Danville, WV 25053

RB: Recommendations Dove Fatal

Dear Mr. White,

Aracoma Coal Company has re-educated all mine personnel in the proper lock and tag procedures, along with the hazards of working on energized equipment. All personnel have been instructed if they see one getting ready to start a maintenance project that they should remind them to lock and tag. We have referred to this as a “buddy check.” All personnel have been instructed on the state and federal regulations pertaining to lock and tag procedures.

Recommendations:
1. Re-education on the hazards of electricity
2. Follow the prescribed State and Federal regulations pertaining to lock and tag.
3. Follow the prescribed S-1 procedures pertaining to lock and tag.
4. Remind your fellow workers to follow the lock and tag procedures (“Buddy Check”).
5. All members at the mine site will be issued a lock, tag and scissor device.
6. All electricians and electrical trainees will hold in their possession no less than three locks, tags and scissor devices for the purpose of locking and tagging equipment as needed.

If you or your staff requires any further assistance in this matter please contact me at the above captioned address or phone number.

Respectfully,

[Signature]

Lewis W. Shoppard, Jr.
Safety Director,
Aracoma Coal Company
Appendix

- Mine Information
- Victim Information
- Persons Present During Investigation
- Accident Timeline
- Glossary of Mining Terminology
MINE INFORMATION

COMPANY  Aracoma Coal Company, Inc.

MINE NAME  Aracoma Alma No. 1

WV PERMIT U-5006-99  MSHA PERMIT NO. 46-08801

ADDRESS  Box 1120 Holden, WV 25625

COUNTY  Logan  PHONE NO. 304-752-6196

DATE PERMIT ISSUED  01/25/00

WORKING STATUS  Active

LOCATION  Rt. 17 Airport Road at Stollings, WV

UNION  NON-UNION  X

DAILY PRODUCTION 3652 tons  ANNUAL PRODUCTION TO DATE 356261 tons

TOTAL EMPLOYEES  145

NUMBER OF SHIFTS  3

COAL SEAM NAME AND THICKNESS  Alma 42 to 68 inches

ACCIDENT INCIDENT RATE  0.0  LOST TIME ACCIDENTS  0

TYPE OF HAULAGE  Belt

WVOMHST INSPECTOR  Michael Pauley

DATE OF LAST INSPECTION  05/01/2008

NOTIFIED BY  West Virginia Mine Emergency Call Center

NOTIFICATION TIME  9:30 p.m. 05/01/2008

CMSP ANNIVERSARY DATE  02/01/2009

CMSP CONTACT PERSON  Lewis Sheppard
INVESTIGATION

The following persons were present during the onsite investigation conducted on May 16, 17, 19 and 20, 2008.

ARACOMA COAL COMPANY, INC.

John Jones  President
Elizabeth Chamberlin  Vice President Safety & Training
(Massey Coal Services)
Gary Goff  Mine Manager
Dustin Dotson  Mine Foreman
Garrett Blackburn  Chief Electrician
Orville Pridemore  Chief Electrician
Robert Ellis  Maintenance Superintendent
Tony Jacobs  Section Foreman
Archie Vance  Compliance Assistant
Forrest Sammons  Safety Department

MINE SAFETY AND HEALTH ADMINISTRATION

Jimmy Maynard  CMI/Accident Investigator
Larry Cook  Supervisory Electrical Engineer
Jim Honaker  Electrical Inspector
Bob Hatfield  Electrical Inspector

OFFICE OF MINERS' HEALTH, SAFETY & TRAINING

Terry Farley  Enforcement Administrator
Eugene White  Inspector-at-Large
John Kinder  Assistant Inspector-at-Large
Mike Pauley  Underground Inspector
James Dingess  Electrical Inspector
Elaine Skorich  Attorney

The following persons were present during the interviews conducted May 19, 2008.

ARACOMA COAL COMPANY, INC.

John Jones  President
Elizabeth Chamberlin  Vice President Safety and Training
(Massey Coal Services)
Lewis Sheppard  Safety Director
David Hardy  Attorney
Christopher Pence                   Attorney
Dave R. Runyon*                    Section Foreman
Orville Pridemore*                 Second Shift Chief Electrician 3 and 4 Section
Josh Tomblin*                     Left Side Shuttle Car Operator
Greg Hensley*                     Roof Bolt Machine Operator
E. J. Clay*                       Scoop Operator
Joey Kennedy*                     Left Side Miner Operator
Kevin Justice*                    Roof Bolt Machine Operator
David M. Runyon*                  Right Side Shuttle Car Operator
Robert Cantrell*                  Right Side Miner Operator
Jeff Ballentine*                  First Shift Section Electrician

*Denotes persons interviewed

MINE SAFETY AND HEALTH ADMINISTRATION

Richard Kline                     Assistant District Manager
Richard Lively                    Assistant District Manager
Jimmy Maynard                     CMI/Accident Investigator
Larry Cook                        Supervisory Electrical Engineer
Sharon Cook                       Mine Safety and Health Specialist (Training)

OFFICE OF MINERS’ HEALTH, SAFETY AND TRAINING

Terry Farley                      Enforcement Administrator
Eugene White                      Inspector-at-Large
John Kinder                       Assistant Inspector-at-Large
Mike Pauley                       Underground Inspector
James Dingess                     Electrical Inspector
Elaine Skorich                    Attorney

The following persons were present during interviews conducted May 22, 2008.

ARACOMA COAL COMPANY, INC.

John Jones                        President
Elizabeth Chamberlin              Vice President Safety and Training
(Lassey Coal Services)
Lewis Sheppard                    Safety Director
Dave R. Runyon*                   Section Foreman
Josh Tomblin*                     Left Side Shuttle Car Operator
Joey Kennedy*                     Left Side Miner Operator

*Denotes persons interviewed
MINE SAFETY AND HEALTH ADMINISTRATION

Jimmy Maynard  CMI/Accident Investigator
Larry Cook  Supervisory Electrical Engineer

OFFICE OF MINERS’ HEALTH, SAFETY AND TRAINING

Terry Farley  Enforcement Administrator
John Kinder  Assistant Inspector-at-Large
Elaine Skorich  Attorney
Accident Timeline

Approximately 3:00 p.m. the No. 3 Section crew entered the mine under the direction of David R. Runyon, Section Foreman.

Coal production began at approximately 3:45 p.m. in the no. 1 entry.

Approximately between 8:35 and 8:40 p.m. the No. 2 (left side) shuttle car was said to have lost power.

Approximately 8:45 p.m. the victim received an electrical shock.

Approximately 9:09 p.m. the Logan County 911 Communication Center was notified.

Approximately 9:14 the West Virginia Mine Emergency Call Center was notified.

Approximately 9:30 p.m. the West Virginia Mine Emergency Call Center notified Eugene White, Inspector-at-Large, Region 3, OMHST concerning electrical accident.

Approximately 9:35 p.m. Eugene White, Inspector-at-Large notified Lawrence Lester, Superintendent via telephone of verbal control order.

Approximately 9:40 p.m. Eugene White notified John Kinder, Assistant Inspector-at-Large, Michael Pauley, Underground Inspector and James Dingess, Electrical Inspector concerning said accident.

Approximately 10:20 p.m. Michael Pauley, Underground Inspector, OMHST arrived at Aracoma Alma No. 1 mine.

Approximately 11:00 p.m. James Dingess, Electrical Inspector, OMHST arrived at Aracoma Alma No. 1 mine.

Approximately 11:20 p.m. John Kinder, Assistant Inspector-at-Large, OMHST arrived at Aracoma Alma No. 1 mine.

Approximately 12:01 a.m., on 05/17/2008 Eugene White, Inspector-at-Large, OMHST arrived at Aracoma Alma No. 1 mine.

Approximately 1:30 a.m., on 05/17/2008 OMHST, MSHA and company representatives started in the mine.

Approximately 1:50 a.m., on 05/17/2008 arrived on the section and proceeded with investigation on No. 3 Section, consisting of a visual inspection of the section power center, the immediate accident scene and the working faces. The investigation also included taking photographs, measurements and gas tests.
Glossary of Mining Terminology

The following is a glossary of mining terminology relating to this report.

**Boss** - Any member of the managerial ranks who is directly in charge of miners (e.g., "shift-boss," "face-boss," "fire-boss," etc.).

**Brattice or brattice cloth** - Fire-resistant fabric or plastic partition used in a mine passage to confine the air and force it into the working place. Also termed "line brattice," "line canvas," or "line curtain."

**Breakthrough** - A passage for ventilation that is cut through the pillars between rooms.

**Certified** - Describes a person who has passed an examination to do a required job.

**Coal mine** - An area of land and all structures, facilities, machinery, tools, equipment, shafts, slopes, tunnels, excavations, and other property, real or personal, placed upon, under, or above the surface of such land by any person, used in extracting coal from its natural deposits in the earth by any means or method, and the work of preparing the coal so extracted, including coal preparation facilities. British term is "colliery".

**Crosset** - A passageway driven between the entry and its parallel air course or air courses for ventilation purposes. Also, a tunnel driven from one seam to another through or across the intervening measures; sometimes called "crosset tunnel", or "breakthrough". In vein mining, an entry perpendicular to the vein.

**Cycle mining** - A system of mining in more than one working place at a time, that is, a miner takes a lift from the face and moves to another face while permanent roof support is established in the previous working face.

**Electrical grounding** - To connect with the ground to make the earth part of the circuit.

**Entry** - An underground horizontal or near-horizontal passage used for haulage, ventilation, or as a mainway; a coal heading; a working place where the coal is extracted from the seam in the initial mining; same as "gate" and "roadway," both British terms.

**Face** - The exposed area of a coal bed from which coal is being extracted.

**Inby** - In the direction of the working face.

**Low voltage** - Up to and including 660 volts by federal standards.

**Man trip** - A carrier of mine personnel, by rail or rubber tire, to and from the work area.
**Permit** – As it pertains to mining, a document issued by a regulatory agency that gives approval for mining operations to take place.

**Portal bus** - Track-mounted, self-propelled personnel carrier that holds 8 to 12 people.

**Seam** - A stratum or bed of coal.

**Section** - A portion of the working area of a mine.

**Shift** - The number of hours or the part of any day worked.

**Shuttle car** – A self-discharging truck, generally with rubber tires or caterpillar-type treads, used for receiving coal from the loading or mining machine and transferring it to an underground loading point, mine railway or belt conveyor system.

**Spad** – A spad is a flat spike hammered into a wooden plug anchored in a hole drilled into the mine ceiling from which is threaded a plumbline. The spad is an underground survey station similar to the use of stakes in marking survey points on the surface. A pointer spad, or sight spad, is a station that allows a mine foreman to visually align entries or breaks from the main spad.

**Underground mine** – Also known as a "deep" mine. Usually located several hundred feet below the earth's surface, an underground mine's coal is removed mechanically and transferred by shuttle car or conveyor to the surface.

**Ventilation** - The provision of a directed flow of fresh and return air along all underground roadways, traveling roads, workings, and service parts.

**Violation** - The breaking of any state or federal mining law.

**Working face** - Any place in a mine where material is extracted during a mining cycle.

**Working place** - From the outby side of the last open crosscut to the face.

**Working section** - From the faces to the point where coal is loaded onto belts or rail cars to begin its trip to the outside.
NOTICE OF VIOLATION

STATE OF WEST VIRGINIA

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

No: 4085

Company / Operator: Aracoma Coal Company, Inc.  Contractor: Yes  No

Permit Number: 2000-00 Mine Name: Aracoma Alma No. 1

Date of Issue: 5-17-08  Time: 2:15  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 40(19) and/or West Virginia Administrative Regulation: Title ______, Series ______, Section ______ exists as follows: The #2 shuttle car being operated on the active #3 section located in the #4 entry was not locked and tagged out from its 480 volt power source while electrical work was being performed on the 480 volt cable near the cable reel area of the #2 shuttle car. The failure to lock and tag as required resulted in a miner coming into contact with an energized cable causing the fatal accident.

Type of Issuance: N.O.V. Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by _______ a.m. _______ p.m. on _______

The foregoing violation was totally abated by 9:50 a.m. p.m. on 6-23-08

Action taken to abate the violation: Discussed with management on lock and tag policy - management is continuing with safety talks. Also, management has issued extra locks and tags.

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: ___________________ Inspector No. 195

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

S and S Violation:  No  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%)
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: Aracoma Coal Company, Inc. 
Contractor: Yes No

Permit Number: w-5006-99 Mine Name: Aracoma Alma No. 1

Date of Issue: 5-10-2010 Time: 10:40 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 40(73) and/or West Virginia Administrative Regulation: Title , Series , Section exists as follows: The #16 circuit in the #3 section transformer was not being properly maintained as required under 22A-2-40(73). This is a 480 volt 225 amp breaker with a instantaneous short circuit range of 200-1500 amps. This circuit is provided with a CM-8000 ground check circuit. Manufacturers require an arc trap to be installed in series with the ground wire inside of the power center. This prevents inter-machine arcing. The arc trap was not installed in this circuit.

Type of Issuance: N.O.V. Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by a.m. p.m. on

The foregoing violation was totally abated by 11:20 a.m. p.m. on 5-20 2008

Action taken to abate the violation: Arc trap has been properly installed in #16 circuit.

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: Inspector No. 195

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

S and S Violation: 

Recommend Special Assessment: 

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

Severity of Injury Expected: None: *(0) x No lost work days *(6) Occurred (11) Lost or restricted days (15) 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%)
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: Aracoma Coal Company, Inc. Contractor: Yes No X
Permit Number: U-5006-99 Mine Name: Aracoma Alma No. 1
Date of Issue: 5-17-2008 Time: 2:20 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 48(19) and/or West Virginia Administrative Regulation: Title , Series , Section exists as follows: The #1 shuttle car being used on #3 section was not tagged. This shuttle car was located in #5 entry. Electrical work was being performed on the 480 volt cable reel. The cathead was locked out at the transformer.

There was not a danger lock out tag attached to this cathead to identify who and when circuit was locked out. Both lock and tag are required while performing electrical work.

Type of Issuance: N.O.V. X Order
Area or equipment (if order is issued):

The foregoing violation shall be totally abated by a.m. p.m. on

The foregoing violation was totally abated by a.m. p.m. on

Action taken to abate the violation: management has discussed with all electricians about lock and tag procedures- also extra locks and tags have been issued to electricians.

Company / Operator Agent Served: Dustin Dotson
Authorized Representative: Inspector No. 195

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

S and S Violation: [ ] Recommend Special Assessment: [ ]

Likelihood of Occurrence: Unlikely: *(0) X Reasonably likely (10) Occurred (20)
Severity of Injury Expected: None: *(0) No lost work days *(6) X 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 (8) 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%)
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: Aracoma Coal Company, Inc. Contractor: Yes No
Permit Number U-5008-99 Mine Name: Aracoma Alma No. 1
Date of Issue 5-17-08 Time 2:10 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 40(43) and/or West Virginia Administrative Regulation: Title , Series , Section exists as follows: The #2 shuttle car being used on #3 section did not have the outer shell of the 480 volt cathead properly grounded. This circuit is being monitored by a CM-8000 ground check circuit, which is a wireless monitor system. This system requires the internal ground strap to be removed. To isolate the outer shell to prevent shorting out the monitor system. The outer shell has to have a external ground shunt from the outer shell back to section transformer frame to assure proper grounding. The shell has a external ground shunt but it was not hooked to transformer frame for proper grounding.

Type of Issuance: N.O.V. Order
Area or equipment (if order is issued):
The foregoing violation shall be totally abated by a.m. p.m. on 20
The foregoing violation was totally abated by 11:25 a.m. p.m. on 5-20 2009
Action taken to abate the violation: The external ground shunt on cathead has been secured back to frame of transformer for proper grounding.

Company / Operator Agent Served: Dustin Dotson
Authorized Representative: Inspector No. 155

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

S and S Violation: X

Likelihood of Occurrence: Unlikely: *(0)* X Reasonably likely (10) Occurred (20)
Severity of Injury Expected: None *(0)* X No lost work days *(6)* Occurred (11) X
Permanently disabling (15) Fatal (20)
No. of Persons Potentially Affected: 0 (0) X 1 (1) 2 (2) 3 (4) 4-5 (6) 6-9 (8) 9+ (10)
Negligence: None (0) X Low (10) Moderate (15) 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: Aracoma Coal Company, Inc.  Contractor: Yes  No

Permit Number: H-5068-99  Mine Name: Aracoma Alma No. 1

Date of Issue: 5-17-20  Time: 3:00  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 40(4) and/or West Virginia Administrative Regulation: Title ____, Series ________, Section _____ exists as follows: The section water pump which is a stationary piece of equipment being used on #3 section was not being provided with a dry insulated platform in front of the 480 volt starter box at this pump. This could cause a potential shock hazard.

Type of Issuance: N.O.V.  Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by ______ a.m. ______ p.m. on ______ 20__

The foregoing violation was totally abated by ______ a.m. ______ p.m. on ______ 20__

Action taken to abate the violation: Dry insulated matting has been provided for this water pump's starter box.

Company / Operator Agent Served: Dustin Dotson

Authorized Representative:  Inspector No. 145

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

S and S Violation:  Recommend Special Assessment:  

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

Severity of Injury Expected: None: *(0)_x_ No lost work days *(6)_x_ 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 (8) 6-9 (8) 9+ (10)

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

Knowing Violation: No  Yes  Repeat

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

Extra effort (-15%)
NOTICE OF VIOLATION

Company / Operator: Aracoma Coal Company, Inc.
Permit Number: U-5006-99
Mine Name: Aracoma Alma No. 1

Date of Issue: 5-17-20 08, Time: 2:30

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 4(9) and/or West Virginia Administrative Regulation: Title , Series , Section exists as follows: The number 1 working face on the active number 3 section had 0 cubic feet of air per minute; the number 2 working face on the active number 3 section had 0 cubic feet of air per minute; the number 3 working face on the active number 3 section had 0 cubic feet of air per minute; the number 3 crosscut left on the active number 3 section had 0 cubic feet of air per minute; the number 5 working face on the active number 3 section had 1475.5 cubic feet of air per minute; and the number 6 working face on the active number 3 section had 1505 cubic feet of air per minute. All these were less than the required minimum 3000 cubic feet of air per minute.

Type of Issuance: N.O.V. X Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 9:40 a.m. on 6-23-2008.

Action taken to abate the violation:

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: Inspector No. 1864

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

S and S Violation: X

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

Severity of Injury Expected: None: *(0) X No lost work days *(6) X 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 (8) 6-9 (8) 9+ (10)

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

Knowing Violation: No X Yes X Repeat X

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

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

Company / Operator: Aracoma Coal Company, Inc.  Contractor: Yes  No X
Permit Number: 2006-20  Mine Name: Aracoma Alma No. 1
Date of Issue: 5-12-20  Time: 12:15  A.M. X  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 40(47) and/or West Virginia Administrative Regulation: Title 41, Series 58, Section 200011 exists as follows: The circuit breakers at the power center were not marked so as to identify the equipment they were energizing.

Type of Issuance: N.O.V.  X  Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 2:00 p.m. on 6-30-20

The foregoing violation was totally abated by

Action taken to abate the violation:

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: [Signature]  Inspector No: 196

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

S and S Violation:  X  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 1 (1)  2 (2)  3 (4)  4-5 (6)  6-9 (8)  9+ (10)  

Negligence: None (0)  Low (10)  X  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%)
NOTICE OF VIOLATION

Company / Operator: Aracoma Coal Company, Inc.  Contractor: Yes ___ No X

Permit Number: 0-5006-99  Mine Name: Aracoma Alme No. 1

Date of Issue: 5-10-20  Time: 2:30 x 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 4(c) and/or West Virginia Administrative Regulation: Title _____, Series _____, Section _____ exists as follows: Properly installed and adequately maintained line brattice or other approved devices were not provided from the last open crosscut to the working face of the number 3 entry. In that the curtain did not extend to the outby corner in the last open crosscut.

Type of Issuance: N.O.V. ___ Order ___

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by _______ a.m. _______ p.m. on 6-25-2002

The foregoing violation was totally abated by 9:43 a.m. ___ p.m. on 6-25-2002

Action taken to abate the violation:

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: ____________________________ Inspector No. 131

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

S and S Violation: [ ]  Recommend Special Assessment: [ ]

Likelihood of Occurrence: Unlikely: *(0)___  Reasonably likely (10) _______  Occurred (20) _______

Severity of Injury Expected: None: *(0)___  No lost work days *(6) X  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+ (16) ______

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%) ______________
NOTICE OF VIOLATION

Company / Operator: Aracoma Coal Company, Inc.  
Contractor: Yes  No X

Permit Number: 0-5006-99  
Mine Name: Aracoma Alma No. 1

Date of Issue: 5-13-2008  Time: 12:15 A.M.  x 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 40 (67) and/or West Virginia Administrative Regulation: exists as follows: The did not maintain the section equipment on the active number 3 section in a safe condition in that there was no uniform means of identifying the circuit breakers on the section power center. The identifications on the power center circuit breakers do not correspond with the weekly or monthly examination records and there is not a uniform means of identifying a particular circuit breaker to a particular machine on the section.

Type of Issuance: N.O.V.  x  Order

Area or equipment (if order is issued):

The foregoing violation shall be totally abated by 8:00 x a.m.  p.m. on 6-30-2008
The foregoing violation was totally abated by a.m.  p.m. on 20

Action taken to abate the violation:

Company / Operator Agent Served: Dustin Dotson

Authorized Representative: Michael R. Bassley  Inspector No. 194

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

S and S Violation:  
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)

* If these are checked in each category, do not go further unless a knowing violation.

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)  x 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%)