

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH
REPORT OF INVESTIGATION
Underground Coal Mine

Fatal Powered Haulage Accident

June 19, 2017
Oak Grove Mine
Oak Grove Resources, LLC
Jefferson County, Alabama
I.D. No. 01-00851

Accident Investigators

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Coal Mine Safety and Health Inspector

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Originating Office
Mine Safety and Health Administration
District 7
3837 S U.S. Hwy 25E, Barbourville, Kentucky 40906
Samuel R. Creasy, Acting District Manager

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Photo of Derailed Train

OVERVIEW

On Monday, June 19, 2017, at approximately 6:27 p.m. CDT, Marius Shepherd, a 32-year-old mine examiner with 8 years and 9 months of experience, received fatal injuries when he was thrown or jumped from the passenger seat of a runaway supply train. The supply train, consisting of a lead locomotive, three supply cars, a ballast car and a trailing locomotive, was traveling on a descending grade when the operators lost control. Neither of the locomotive operators saw the victim's exit from the locomotive, and investigators were unable to determine whether he was thrown or jumped. After the victim exited, the train continued moving for 175 feet and derailed.

The fatal accident occurred, in part, because the mine operator did not comply with previously issued safeguards. These safeguards prohibited unauthorized personnel from riding in locomotives, water over track rails, and required sanding devices to be properly maintained. Water had accumulated over the track rails, and the track sanding devices for the locomotives were not maintained and functional. The locomotive operators were not able to control the speed of the supply train due to the combination of the track grade, the non-functioning locomotive track sanders, and the slick, wet rails.

GENERAL INFORMATION

The Oak Grove Mine is located in the Oak Grove community near Hueytown, Alabama. Oak Grove Resources, LLC operates the underground shaft mine, which extracts coal from the Blue Creek coal seam. The mine has three production shifts, operating six days per week. The mine utilizes diesel-engine rail haulage equipment to move miners, supplies, and mining equipment throughout the active areas of the mine. Average coal production is 9,500 tons per day. The mine liberates over four million cubic feet of methane gas in a 24-hour period and is on a 5-day spot inspection schedule in accordance with Section 103(i) of the Mine Act. The hourly workers are represented by the United Mine Workers of America (UMWA).

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

Larry Millburg.....General Manager
J.D. Morris..... Mine Manager
Keith Miller.....General Mine Foreman
Chad McAtee.....Safety Manager

A regular (E01) safety and health inspection began on April 4, 2017 and was ongoing at the time of the accident. The previous E01 inspection was completed on March 30, 2017. On October 1, 2017, Coal District 11 in Birmingham, Alabama was merged with Coal District 7 in Barbourville, Kentucky, and the investigation was completed under the jurisdiction of District 7. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2016 was 4.22 as compared to a national NFDL rate of 3.32 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On Monday, June 19, 2017, Shepherd started his shift at 3:00 p.m. as part of the evening crew. After a safety meeting, Willie Edwards, Evening Shift Foreman, gave out work assignments. At about 3:08 p.m., Locomotive Operators Darrell Silas and Derrick Allen entered the mine and traveled to the No. 6 locomotive and the No. 12 locomotive. After they conducted a pre-operational check, Silas and Allen drove the locomotives to the bottom of the service shaft and coupled four rail cars already loaded with supplies.

The No. 6 locomotive, operated by Allen, was in the lead, followed by the four supply cars and the No. 12 trailing locomotive, operated by Silas. At about 3:45 p.m., Shepherd entered the mine via the service hoist and met Allen and Silas at the bottom of the service shaft. Shepherd asked if he could ride as a passenger in one of the locomotives to the Main North 4 track, where he intended to begin his examination route along the belt entry. Investigators learned from interviews that it was common practice for

examiners to ride with a locomotive crew or other vehicles traveling in and/or out of the mine on the track.

At approximately 5:40 p.m., the train with Shepherd aboard departed on the Main North 3 track and headed inby. Shepherd was riding in the passenger seat of the No. 12 trailing locomotive with Silas. The motor crew delivered the first flat car, containing oil and shearer bits, to the 17 East section. Leaving 17 East, the train stopped at the track switch at the mouth of the section (crosscut No. 44). Shepherd disembarked from the trailing locomotive in order to throw the track switch. He then changed his location on the train, boarding the lead locomotive and sat in the passenger seat. The train left the switch location and continued inby on the Main North 3 track.

At approximately 6:25 p.m., the train reached the top of the grade on the Main North 3 track and turned east onto the East Main track, which has a descending grade in the direction of travel. At crosscut No. 2, Allen signaled Silas to shift from first to second gear, and he did so. The No. 6 lead locomotive has 4 transmission speeds and the No. 12 trailing locomotive has 3 transmission speeds. When Silas felt the lead locomotive pulling him, he shifted into third gear.

At crosscut No. 5, Silas decided that the train had gained too much speed, and he shifted back to second gear. He locked his track sanders into the 'continuous open' position, which should have deposited sand onto the tracks and slowed the train. About the same time, Allen noticed the track was wet and slick. He too began applying sand to the track using his sanders.

Near crosscut No. 8, Allen felt his locomotive lose all traction. He continued working his sanders and down-shifted the locomotive, but the train was soon out of control. The train continued for 1,225 feet and, at about crosscut No. 16, Shepherd was either thrown or jumped from the No. 6 locomotive. Allen and Silas did not witness Shepherd leaving the locomotive.

Traveling at an excessive speed, the train continued about 175 feet to the curve at crosscut No. 17, where the East Main track turns into the Main North 4 track, and it derailed. The lead locomotive came to rest completely off the track and in a crosscut. The ballast car and the No. 12 trailing locomotive remained on the track (see Appendix B).

Daniel Nantz, General Inside Laborer, was working at the East Main belt tailpiece. He heard the train wreck and went to investigate. Nantz spotted Allen in the deck of the lead locomotive and asked if he was okay. Allen responded he was fine and requested Nantz to check on Silas and Shepherd. Nantz found Silas sitting in the deck of his locomotive, shaken but uninjured. Silas asked Nantz if he knew where Shepherd was located. He answered, "No." After a quick search, Nantz found Shepherd in crosscut

No. 16 next to an electrical distribution box. He was unconscious and lying on his back, with his feet pointing toward the track.

Nantz elevated Shepherd's head and gave support to stabilize his neck. Allen arrived at the scene and used his hand-held radio to call for help. He contacted Edwards to inform him of the accident. At approximately 6:30 p.m. Edwards contacted Greg Cox, Communication System Operator, who was on the surface. He told Cox that Shepherd had a head injury and needed an ambulance or possibly a medical helicopter.

Gary Jenkins, Evening Shift Assistant Mine Foreman, heard the call for help over the radio. Jenkins and his crew were in close proximity to the accident scene, so he notified Edwards they would travel to the location to assist. According to mine tracking system records, Jenkins and his crew, consisting of Brad Kelley, General Inside Laborer, David Barnett, Belt Repairman, and Stephen Poe, Belt Repairman, arrived at Shepherd's location at 6:33 p.m. They observed that Shepherd's condition was serious. Jenkins radioed Edwards to get an ambulance and hold the hoist at the bottom of the service shaft.

At 6:37 p.m., Jenkins and his crew placed Shepherd on a track-mounted bus and began traveling toward the shaft bottom. Shepherd remained unconscious. They placed Shepherd in a Stokes basket, carried him to the hoist, and arrived on the surface at 7:13 p.m.

Shepherd was loaded into an ambulance operated by Concord Fire and Rescue and transported to the University of Alabama at Birmingham Hospital. He was pronounced dead by Dr. Andrew Papoy, M.D., at 8:50 p.m.

INVESTIGATION OF ACCIDENT

At the time of the accident, Keith Chaney, Coal Mine Safety and Health Inspector, had completed his inspection activities for the day and was at the surface preparing to leave the mine property. He was notified of the accident at approximately 6:40 p.m., and at 7:30 p.m., he issued a 103(k) order to preserve the accident scene and prevent the destruction of any evidence that would assist in the investigation. Cox called the Department of Labor (DOL) National Contact Center at 6:57 p.m. to report the accident. The Contact Center contacted Russel Weekly, Supervisory Coal Mine Safety and Health Inspector. Weekly called Danny Crumpton, Assistant District Manager (Enforcement), and notified him of the accident. Crumpton assigned Philip Ingram and Darryl Allen, Coal Mine Safety and Health Inspectors, and Weekly to investigate the accident. Ingram, Darryl Allen, and Weekly traveled to the mine site and were briefed by Chaney on the circumstances of the accident.

The investigators conducted preliminary interviews at the North Portal mine office with persons having knowledge of the accident. At the accident site, they conducted a survey of the equipment and structures involved and took photographs. In addition to the MSHA investigation team, the State of Alabama Department of Industrial Relations Mining and Reclamation Division, the UMWA, and mine management personnel participated in the investigation (see Appendix A). On June 21 and 22, 2017, MSHA investigators made additional visits to the accident scene to gather evidence.

MSHA and the State of Alabama conducted formal interviews on June 21, 27 and 28, 2017, at the Oak Grove mine office (see Appendix A).

DISCUSSION

Mine Track

Investigators inspected the mine track rails on the East Main track following the accident. The rails were wet from condensation. They found an accumulation of water, which was approximately ½ to 1 inch over the ball of the track rail at crosscut No. 8 for a span of 10 feet. At the derailment location, the track's left and right rails under the inby end of the (4) ballast car had shifted 4 inches and 3 inches, respectively. Investigators concluded that the damage to the rails occurred during the derailment.

Oak Grove Resources, LLC conducted a vertical profile survey of the East Main track grade. It found the grade averaged approximately 2.8% along the track where the operators noted problems in controlling the speed of the train. The steepest length of the track is on a 6.74% grade for a distance of approximately 80 feet. The flattest area along the track has a grade of 0.56% (see Appendix B).

Diesel Locomotives and Supply Cars

The front No. 6 locomotive was a Brookville Model BDC-20UP, serial number 7929, 20 ton, manufactured in 1996. The operator and passenger seat were inspected and no deficiencies were observed (see Appendix C). A seatbelt or other restraint was not required and was not installed in the locomotive. The weight is listed as 40,575 pounds and it is 19 feet long and 7 feet wide.

The weights and dimensions of the supply cars were as follows:

- (1) Flat car with two pallets of oil and shearer bits was dropped off on 18 East Section and was not involved in the accident; therefore the weight of that car was not measured.
- (2) Flat car, loaded with two pallets of oil, monorail hangers, and belt clips, weighed 12,378 pounds and was 16 feet long and 7 feet wide.
- (3) Flat car, loaded with six pallets of solid cinder blocks, two doors, one pallet of block sealant and one pallet of roof bolt resin, weighed 29,304 pounds and was 16 feet long and 7 feet wide.

(4) Ballast gravel car, loaded, weighed 32,667 pounds and was 18 feet long and 7 feet wide.

The No. 12 trailing locomotive was an Irwin Model DH25, serial number 08407, 25 ton. It had been rebuilt. The rebuild included installing different axles and service and parking brake systems. The operator and passenger seats were inspected and no deficiencies were observed. The rebuilt model weighed about 56,000 pounds and was 23 feet 8 inches long and 7 feet 8 inches wide.

The total weight of the locomotives, the two loaded flat cars and the ballast gravel car was 170,924 pounds (85.46 tons). The total length of the train, including the couplers was 99 feet long.

Train Couplers

The investigators inspected the couplers to determine if any critical dimensions were out-of-tolerance. While the coupler that connected the No. 12 trailing locomotive and the ballast gravel car was out-of-tolerance due to an inadequate lock thickness, it was still coupled after the accident. As a result, investigators concluded that its condition did not contribute to this accident. All of the other train couplers were within the tolerance range. MSHA issued a non-contributory citation to the operator for violation of 30 CFR § 75.1725(a) because the train coupler's lock thickness was out-of-tolerance range.

Gearing

Investigators found the transmission gear selection lever in the No. 6 lead locomotive in the neutral position. Because the lead locomotive derailed, the position of the gear lever could have been changed by the impact force resulting from the accident. The transmission gear selection lever in the No. 12 trailing locomotive was found in 2nd gear.

Silas stated that the gearing of the No. 6 and No. 12 locomotives was different. The No. 12 locomotive typically had to be in one gear higher than the No. 6 locomotive to best keep the speed of the locomotives the same. For example, the No. 12 locomotive would have to be in 3rd gear, and the No. 6 locomotive would have to be in 2nd gear for the locomotives to best travel at the same speed. Although the different gearing would not have been enough to cause the train to derail, it would have complicated the process for the operators to uniformly control the speed of the train.

Brakes

Both locomotives are provided with service and parking brakes, but the two supply flatcars and ballast car are not equipped with braking systems. Using Brookville's operation and service manual, investigators tested the No. 6 locomotive, which was in front. They found that the braking systems did not work to stop the locomotive and

were defective. However, because the operators did not use the service and parking brake systems to control the speed of the train, their condition did not contribute to the accident. MSHA issued a non-contributory citation for the defective service and parking brakes, a violation of 30 CFR § 75.1909(b)(7).

Investigators also tested the brake systems on the No. 12 trailing locomotive and found they held the machine stationary. However, the rebuild of the locomotive had significantly changed the design of the service and parking brake systems so that a single failure of one service brake valve and air chamber would cause the loss of all service braking capability. Because this design did not meet the requirements of 30 CFR §75.1909(b)(6), MSHA issued the operator a non-contributory citation.

Locomotive Track Sanders

Each locomotive is equipped with four sand reservoirs to deposit sand on the rails. Two are located on the front, one on each side and two on the rear (see Appendix D). Track sanders are designed to apply sand to the rails only in the direction of travel. These sanders are referred to as the 'front' sanders. For both the lead No. 6 locomotive, and the rear No. 12 locomotive investigators found that the left front sanders were inoperative due to blockages in the reservoirs. MSHA could not determine when these sanders became inoperative.

The two right front sanders on each locomotive were working as required. With only two of the front four sanders functioning as intended, there was insufficient frictional force between the locomotive's wheels and the track rails to help slow the speed of the supply train.

Pre-Operational Examination and Maintenance

Silas and Allen stated they conducted the pre-operational check of both locomotives prior to use, and one sander on the No. 12 locomotive was found inoperative. The sander was repaired and they did not detect any other issues with either locomotive. Investigators reviewed the maintenance records for the two locomotives. The maintenance records indicated that all hazards listed had been corrected.

Communication

The main method of communication between locomotive operators was a portable radio system. However, it did not provide a clear means of communication. When the train was in motion, the noise level of the running locomotives and other noises from the mine environment prevented audible broadcasts through the radio system. As a result, the operators were not able to share important information that would have assisted them in maintaining a safe speed on wet rails on a descending track grade. This includes better coordination to address the challenges presented by different gear ratios to control the supply train's speed. In addition, the mine did not have

standardized visual or audible signaling systems in place that would have alerted the operators to observe track conditions and maintain a safe speed.

Previously Issued Safeguards

In 1986 and 1987, MSHA issued three safeguards to the mine operator:

Safeguard 2812277, issued on August 5, 1986, states, in part: “. . . No person, other than the motorman and brakeman should ride on a locomotive unless authorized by the mine foreman, and then only when safe riding facilities are provided. . . .”

Safeguard 2811430, issued on November 20, 1986, states, in part: “. . . all track mounted personnel carriers shall be provided with a well maintained fully operational sanding device.” After this safeguard was issued, MSHA wrote over 200 citations because the mine operator violated the safety criteria in this safeguard.

Safeguard 2809080, issued on August 10, 1987, states in part: “. . . Water shall not accumulate over the rails in track haulage entry where track mounted personnel carriers and locomotives are required to travel.” After this safeguard was issued, MSHA wrote over 100 citations because the mine operator violated the safety criteria in this safeguard.

The operator disregarded these safeguards, and they were not reflected in any of its policies and procedures. The victim was not authorized to ride on any locomotive, the sanding device was not well maintained or fully operational, and at the time of the accident, water had accumulated over the rails.

Training

Shepherd began working at this mine September 26, 2016, as a preshift examiner. Shepherd received experienced miner training and locomotive operations’ task training on September 27, 2016. No training deficiencies were found during the investigation.

ROOT CAUSE ANALYSIS

MSHA conducted an analysis to identify the most basic causes of the accident that were correctable through reasonable management controls. Root causes were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are the root causes identified during the investigation and the operator's implemented corrective actions to prevent reoccurrence of this type of accident.

1. Root Cause: The mine operator's policies and procedures did not ensure compliance with two previously issued safeguards. One safeguard requires that no person other than a motorman and brakeman ride in a locomotive without the mine foreman's authorization. The victim was riding in the locomotive without authorization from a mine foreman. The other safeguard requires that all track mounted personnel carriers be provided with a well maintained, fully operational sanding device. The two locomotives, involved in the accident, each have four sanders (total of eight). The left front sander on each locomotive was not fully operational. Non-functioning locomotive sanders contributed to the inability of the locomotive operators to control the speed of the supply train.

Corrective Action: The mine operator implemented a new policy/procedure requiring locomotive operators to conduct a thorough pre-operational check, make a written record of the checks, and correct noted deficiencies before any locomotive is put into operation. Miners were trained on the new policy/procedure, as well as on the two safeguards, and the operator kept a roster of attendees. MSHA personnel monitored the training. Additionally, MSHA issued a new safeguard limiting the reasons why a passenger may ride on a locomotive. The new safeguard also requires additional training for those passengers.

2. Root Cause: The mine operator's policies and procedures did not ensure compliance with a previously issued safeguard (2809080) and the operator did not have an effective procedure in place to ensure that supply trains could operate safely in the section of the track where the fatality occurred. The safeguard requires that water shall not accumulate over the rails in track haulage entries where track mounted personnel carriers and locomotives are required to travel. Wet track rails and other factors contributed to the inability of the locomotive operators to maintain the supply train at a safe speed. These factors included: a descending track grade; the differences in the locomotives' gear ratios; locomotive track sanders not being fully operational; and the lack of standardized uniform communication between locomotive operators. All of these played a role in the train going out of control, which contributed to the mine examiner's accident and fatal injuries.

Corrective Action: The mine operator implemented several written provisions/policies as corrective actions. Daily reporting of track conditions by preshift examiners will be communicated to locomotive operators. Water over the track will be corrected prior to track mounted personnel carriers and locomotives traveling in those hazards areas. The track conditions, hazards noted, and their corrective actions will be recorded in the pre-shift reports. Signs were placed along mine track grades to alert locomotive operators to observe track conditions and maintain a safe speed. A risk assessment system was developed to determine the total safe train weight for specific mine grades and rail conditions. A leading and trailing locomotive system will be used at all times and the gear ratio between the two locomotives will be compatible. An effective standardized communication system between locomotive operators of supply trains was developed, and training on these new policies and procedures was conducted, and a roster kept by the operator. This training was monitored by MSHA personnel.

CONCLUSION

On Monday, June 19, 2017, at approximately 6:27 p.m. CDT, a 32-year-old mine examiner with 8 years and 9 months of experience received fatal injuries when he was thrown or jumped from the passenger seat of a runaway locomotive supply train. The supply train, consisting of a lead locomotive, three supply cars, and a trailing locomotive, was traveling on a descending grade when the operators lost control of it. There were no witnesses to the victim's exit from the locomotive, and investigators were unable to determine whether he was thrown or jumped. After the victim exited, the train continued for about 175 feet and derailed. The victim was not authorized to ride as a passenger on any locomotive at the time of the accident.

The fatal accident occurred because the mine operator did not comply with previously issued safeguards that prohibited unauthorized personnel from riding in the locomotives. The operator also allowed other hazardous conditions to exist. Water had accumulated over the track rails, and the track sanding devices for the locomotives were not maintained and functional. The locomotive operators were not able to control the speed of the supply train due to the combination of the track grade, the non-functioning locomotive track sanders, and the wet (slick) rails.

Samuel R. Creasy
Acting District Manager

Date

ENFORCEMENT ACTIONS

1. Section 103(k) Order No. 8531076 was issued on June 19, 2017, to Oak Grove Resources LLC, Oak Grove Mine.

An accident occurred at this operation on 06/19/2017 at approximately 6:30 PM. As rescue and recovery work is necessary; this order is being issued under Section 103(k) 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 investigating the cause or causes of the accident. It prohibits all activity inby Main North 3 Primary Escapeway track turn out to inby at 18 East track Primary Escapeway switch until MSHA has determined that it is safe to resume normal haulage travel 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 to the mine operator at 7:30 PM with MSHA on site and has now been reduced to writing.

2. A section 104(d)(2) Order No. 8535215 was issued for violation of 30 CFR § 75.1403 to Oak Grove Resources LLC.

The mine operator did not comply with Safeguard No. 2812277 issued on August 5, 1986, which states, in part: "...No person, other than the motorman and brakeman should ride on a locomotive unless authorized by the mine foreman, and then only when safe riding facilities are provided..." On June 19, 2017, a mine examiner rode a locomotive supply train without being authorized to do so by the mine foreman. While riding as a passenger on an out-of-control locomotive, the mine examiner sustained a fatal injury when he jumped or was thrown off the locomotive.

3. A section 104(d)(2) Order No. 8535216 was issued for violation of 30 CFR § 75.1403 to Oak Grove Resources LLC.

The mine operator did not comply with Safeguard No. 2809080 issued on August 10, 1987, which states, in part: "...Water shall not accumulate over the rails in track haulage entry where track mounted personnel carriers and locomotives are required to travel." On June 19, 2017, at crosscut No. 8 of the East Main track, an accumulation of water was over the ball of the rails for approximately 10 feet in length. Water over the rails was a factor in the locomotive wheels losing traction with the rails. This contributed to the supply train losing control and subsequently resulted in the fatality of a mine examiner. This track is traveled every shift, and multiple times per shift, by support personnel and miners who work on the 18 East continuous mining section. Additionally, Preshift Examiners

travel this track on all three shifts. Yet, no one noted the presence of water, which had accumulated over a period of time.

4. A section 104(a) Citation No. 8535217 was issued for violation of 30 CFR §75.1916(a) to Oak Grove Resources LLC.

On June 19, 2017, the supply train, made up of the Brookville No. 6 and the Irwin No. 12 locomotives, was operated at a speed inconsistent with the heavy train weight, the wet rail conditions, and the existing track grades. The excessive speed of the supply train resulted in the fatality of a miner.

5. A section 104(a) Citation No. 8535218 was issued for violation of 30 CFR §75.1403 to Oak Grove Resources LLC.

The mine operator did not comply with Safeguard No. 2811430 issued on November 20, 1986 which stated, in part: "...all track mounted personnel carriers shall be provided with a well maintained fully operational sanding device." The Brookville (lead) No. 6 locomotive and the Irwin (rear) No. 12 locomotive had sanding systems which were not fully operational on June 19, 2017. For each locomotive tested, one inby end sander located on the left side did not operate, and one outby end sander located on the right side was misaligned in a way that the sand did not land on the rail. The inoperable and misaligned sanders failed to distribute sand to the rails, which would have increased the coefficient of friction between the locomotive wheels and the rail and decreased the speed. The supply train lost control, and a miner riding as a passenger on the train was fatally injured, due in part to the lack of fully operational sanding systems on these locomotives.

6. A section 314(b) Safeguard No. 8535244 was issued pursuant to 30 CFR §75.1403 to Oak Grove Resources LLC.

On June 19, 2017, a mine examiner, who was a passenger in a locomotive, received fatal injuries when he jumped or was thrown from the passenger seat of a runaway locomotive. These facts demonstrated a violation of Safeguard No. 2812277 (which was in effect at the time of the accident) and accordingly a violation of that safeguard will be issued to the mine. Passengers on locomotives must be limited to only those absolutely necessary to perform required tasks involving the locomotive. Passengers must be prepared to make quick and informed decisions regarding safety in response to an out-of-control locomotive situation. This is a notice of safeguard, Safeguard No. 8535244, requires that before a person is allowed to ride as a passenger in a locomotive, all of the following requirements must be met:

- i. The person must have written approval from the Shift Foreman to be a passenger,
 - ii. The person must have completed hazard training pertaining to riding in locomotives,
 - iii. The purpose of riding the locomotive is either, because the person is being trained to be a locomotive operator, or the person is essential for transporting supplies and/or equipment on the locomotive.
- Safeguard No. 8535244 supersedes Safeguard No. 2812277 as of February 5, 2018.
7. A section 314(b) Safeguard No. 8535245 was issued pursuant to 30 CFR §75.1403 to Oak Grove Resources LLC.

On June 19, 2017, a mine examiner received fatal injuries when he was thrown or jumped from the passenger seat of a runaway locomotive. The operators of the locomotives, part of a supply train did not have an effective communication system to prevent this accident. The locomotive operators were not able to effectively communicate necessary important information to each other, which would have assisted in maintaining a safe speed on wet rails on a descending track grade. They had no means of effective communication to assure that matching locomotive gear ratios were used to assist in controlling the supply train's speed. This is a Notice to Provide Safeguard(s) requiring that locomotive operators, when working together, have a headset communication system. The system must provide clear audible communications above ambient noise levels of the running locomotives and other mine environment noise. In the event the headset communication system is inoperable for any reason, the locomotive operators will put the locomotives affected by the outage in the closest side track. Repairs will completely restore the headset communication system before the locomotives are moved.

8. A section 314(b) Safeguard No. 8535246 was issued pursuant to 30 CFR §75.1403 to Oak Grove Resources LLC.

Pre-operational checks are an important part of assuring that track mounted equipment is safe to operate for each shift. Track mounted equipment is an integral part of moving miners and supplies to different areas of this mine. Additionally, track mounted equipment is essential for transporting injured miners from the mine and for escaping the mine during an emergency. This is a Notice to Provide Safeguard(s) requiring that all track mounted equipment have a written pre-operational check performed prior to putting the equipment into service each shift. All deficiencies found must be corrected before the track mounted equipment is put into service. The pre-operational checks, deficiencies found, and corrective actions, shall be recorded in a book. The record book of

the pre-operational checks shall be promptly dated and signed or countersigned by a foreman. The book of pre-operational checks will be retained at a surface location at the mine for at least one year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

APPENDIX A
Persons Participating in the Investigation
(Persons interviewed are indicated by a * next to their name)

Oak Grove Resources (Management)

Larry Millburg General Manager
Chad McAtee Safety Manager
George Mikum General Counsel
*Willie Edwards Evening Shift Mine Foreman
*Gary Jenkins Evening Shift Assistant Mine Foreman
Mike Carroll Safety Supervisor
Raymond Coleman Safety Supervisor
Mike Richardson Safety Supervisor
Larry Turner Safety Supervisor
Jeff Garner Maintenance Manger
*Mark Frazee Maintenance Supervisor

Oak Grove Resources (UMWA)

Daniel Hundley Safety Committee Chairman
*Brad Kelly General Inside Laborer
*David Barnett Belt Repairman
Greg Green Safety Committee Member
John Earnest General Inside Laborer
*Jeff Madison Electrician
*Daniel Nantz General Inside Laborer
*Darrell Silas Locomotive Operator
*Derrick Allen Locomotive Operator
*Greg Cox Communication System Operator

UMWA District 20 Field Representative

James Blankenship International Field Representative

State of Alabama-Mining and Reclamation Division

James West Mine Inspector
Jeff Cosper Mine Inspector

APPENDIX A Cont'd
Persons Participating in the Investigation

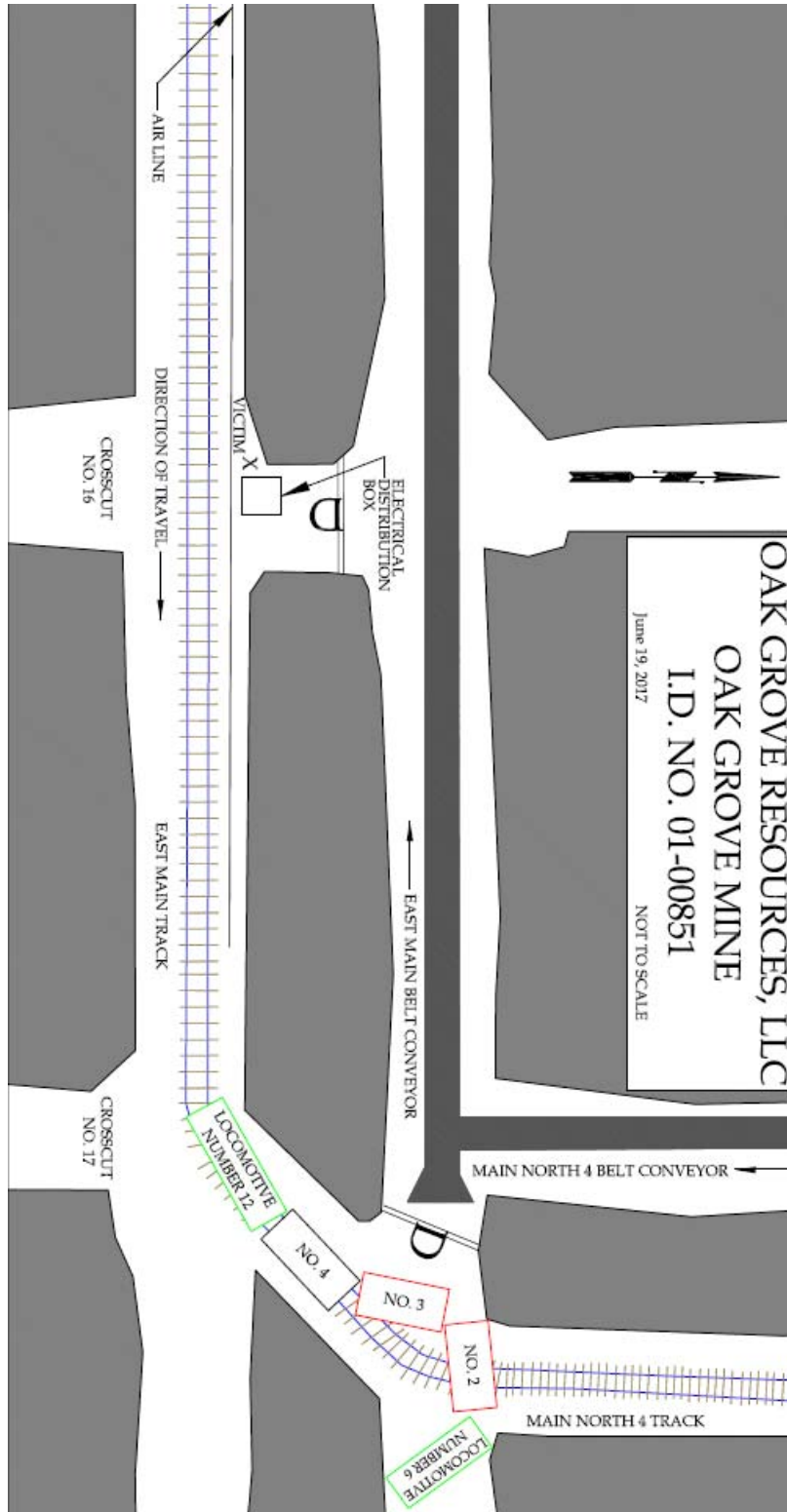
Mine Safety and Health Administration

Steve Womack Asst. District Mgr. Technical
Russel Weekly..... Supervisory Coal Mine Inspector
Philip Ingram..... Coal Mine Inspector
Darryl Allen Coal Mine Inspector
James Angel Technical Support (Mechanical Engineer)

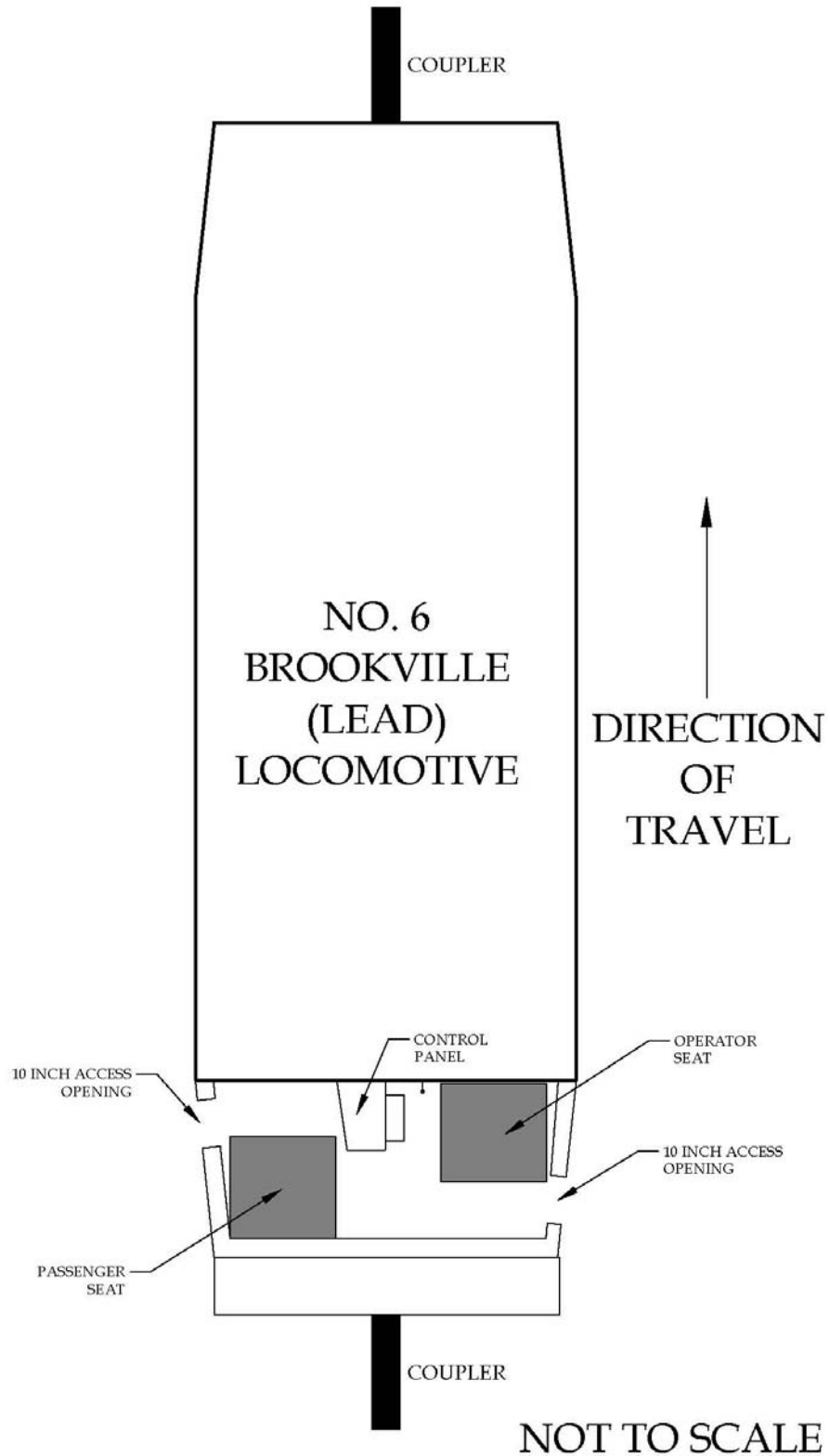
Brookville Services, LLC

Harry Reitz.....Project Coordinator

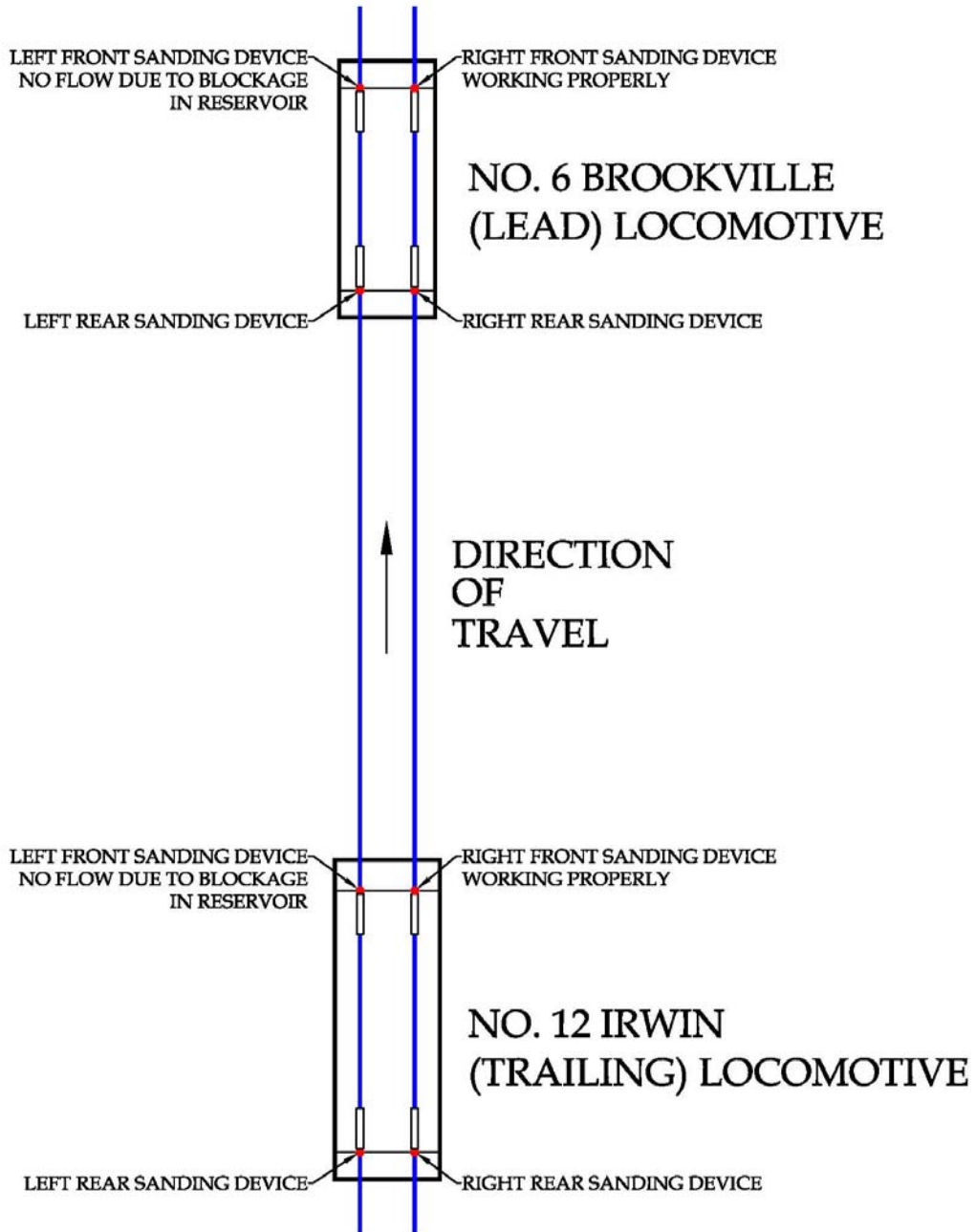
APPENDIX B - Map of the Accident Area



APPENDIX C
Sketch of Lead Locomotive



APPENDIX D
Sketch of Locomotive Sanders



APPENDIX E Victim Information

Accident Investigation Data - Victim Information

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



Event Number:

4	4	9	8	6	5	2
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Victim Information: 1															
1. Name of Injured/Ill Employee: <i>Marius Shepherd</i>				2. Sex <i>M</i>		3. Victim's Age <i>32</i>		4. Degree of Injury: <i>01 Fatal</i>							
5. Date(MWDD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 06/19/2017 b. Time: 20:50</i>								6. Date and Time Started: <i>a. Date: 06/19/2017 b. Time: 18:26</i>							
7. Regular Job Title: <i>095 Mine Examiner</i>				8. Work Activity when Injured: <i>090 Riding on locomotive to get to job loc.</i>						9. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
10. Experience		Years		Weeks		Days		b. Regular		Years		Weeks		Days	
a. This		<i>0</i>		<i>37</i>		<i>0</i>		Job Title:		<i>0</i>		<i>37</i>		<i>0</i>	
Work Activity:								c. This		Years		Weeks		Days	
Mining:								Mine:		<i>0</i>		<i>37</i>		<i>0</i>	
11. What Directly Inflicted Injury or Illness? <i>002 The forward momentum from the fall</i>								12. Nature of Injury or Illness: <i>370 Injuries to the head</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> Independent Contractor ID: (if applicable)															
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input checked="" type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input checked="" type="checkbox"/> None: <input type="checkbox"/>															
16. Part 50 Document Control Number: (form 7000-1)								17. Union Affiliation of Victim: <i>2555 United Mine Workers of Amer.</i>							