## West Virginia Office of Miners' Health, Safety & Training

October 17, 2011

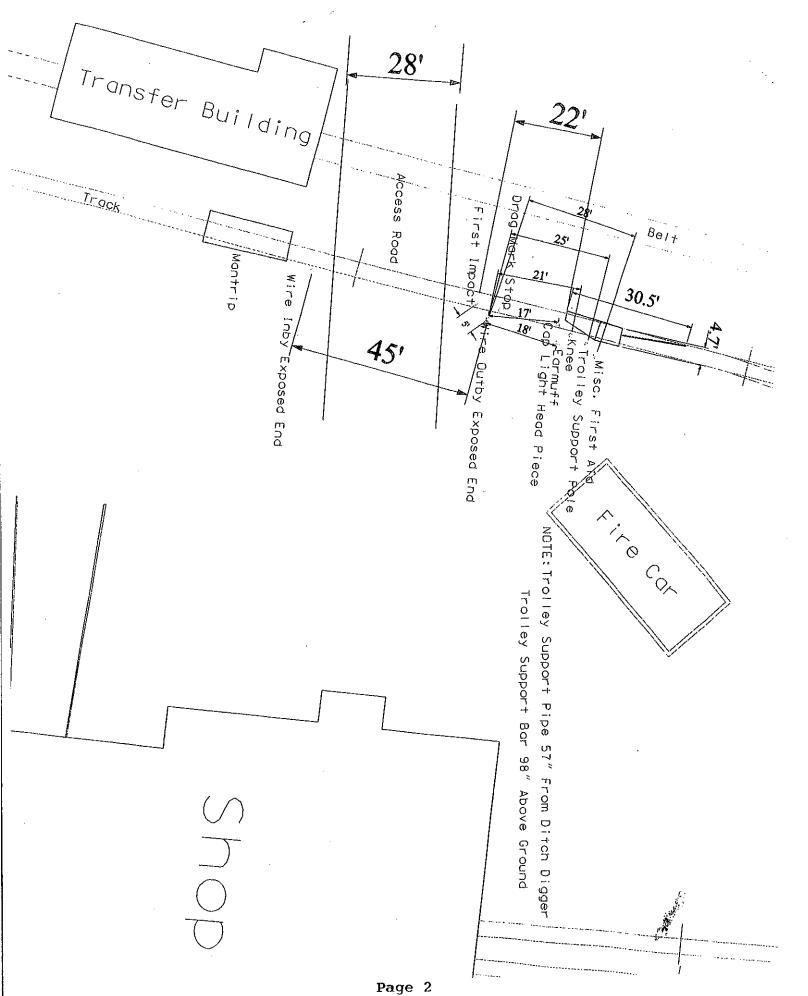
Report of a Fatal Power Haulage (Underground Mine)

Consolidation Coal Company Shoemaker Mine Permit No. D-4791

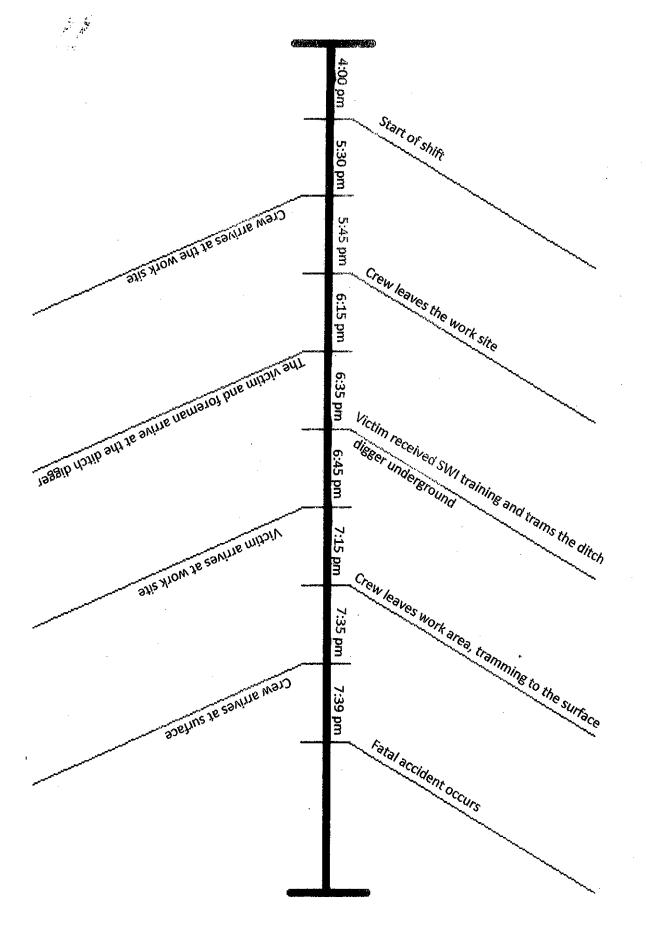
Region One 14 Commerce Drive, Suite 1 Westover, West Virginia 26501 Edward Peddicord, Inspector-at-Large

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# limeline of Events



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# MINE INFORMATION

COMPANY:	Consolidation	n Coal Company		
MINE NAME:	Shoemaker M	line		
WV PERMIT NUMBE	R:	D-4791		·
ADDRESS:	RD 1 Box 62A	ı, Dallas, West Virgii	nia 26036	
COUNTY:	Marshall Cou	nty		
DATE PERMIT ISSUE	ED:	August 12, 1966	WORKING STATUS:	Active
LOCATION:	Benwood, We	est Virginia		
UNION:	Х	_ NON	-UNION:	<del></del>
ANNUAL PRODUCTION	ON TO DATE:	1.5 million t	ons	· · · · · ·
			NUMBER OF SHIFTS:	
NAME OF COAL BED	:	Pittsburgh	SEAM THICKNESS: _	7 feet
ACCIDENT INCIDEN	T RATE:	2.19%	LOST TIME ACCIDEN	NTS:14
TYPE OF HAULAGE:	Track	haulage and convey	or belt	
WV OMHST INSPECT	ГОR:	Danny Burgoyne		
DATE OF LAST INSP	ECTION:	<u>September :</u>	27, 2011	
NOTIFIED BY:	Mine	and Industrial Accid	dent Rapid Response Sys	stem
TIME/DATE OF NOT	'IFICATION:	8:08 p.m. or	n October 17, 2011	
CMSP – ANNIVERSA	RY DATE:	March 4, 2012		
CMSP – CONTACT PI	ERSON:	Brian Hough	1	

### **GENERAL INFORMATION**

A fatal track haulage accident occurred at approximately 7:39 p.m. on October 17, 2011, at the Consolidation Coal Company, Shoemaker Mine. The accident occurred at the jump crossing on the old empty track at the Shoemaker River Portal, plant and supply yard. Mr. Charles McIntire, age 62, was fatally injured when he was struck and pinned under the ditch digger machine that he had been operating. The unenergized machine failed to coast through a jump/gap in the trolley wire. The victim dismounted to connect a jumper cable to the trolley wire in order to completely travel through the jump/gap. When the victim energized the machine, it immediately trammed outby, striking and pinning the victim under the machine.

Mr. Edward Peddicord, Inspector-at-Large for Region One, was notified by the Mine and Industrial Accident Rapid Response System at 8:08 p.m. on October 17, 2011. At Approximately 8:22 p.m. on October 17, 2011, Mr. Peddicord issued a verbal order by phone to Mr. Brian Hough, Consolidation Coal Company Safety Supervisor, to preserve evidence in that area until an investigation was completed. Mr. Colin Simmons, district inspector, arrived at the scene at approximately 8:50 p.m. Mr. Danny Burgoyne and Mr. James Stuckey, district inspectors, arrived at the scene at approximately 10:29 p.m.

At that time a joint investigation was initiated by the West Virginia Office of Miners' Health, Safety and Training, Mine Safety and Health Administration, United Mine Workers of America, and Consolidation Coal Company.

### DESCRIPTION

On Monday, October 17, 2011, the afternoon shift began at 4:00 p.m. at the Shoemaker Mine, River Portal in Benwood, West Virginia in Marshall County. Mr. Charles McIntire, general laborer, Mr. John Barnicki, river supply, and Mr. Roger Fox, river supply, were instructed to take a track cleaning machine, one (1) empty mine car and a locomotive to 15-20 block, located on the main line haulage track to load out rocks that had accumulated along the track. The crew was under the supervision of Mr. Joseph Ontko, section foreman, and arrived at the work site at approximately 5:30 p.m. The crew attempted to load the rocks with the track cleaning machine, but the rocks were too large. The crew exited the mine to retrieve the ditch digger machine that was parked on the surface. The track cleaning machine, locomotive, mine car, and the jeep that Mr. Ontko was operating were taken to the surface.

At approximately 6:15 p.m., Mr. McIntire and Mr. Ontko arrived at the ditch digger machine which was parked in the #2 empty spur on the surface. Mr. McIntire informed Mr. Ontko that his Safe Work Instruction training had expired. Mr. Ontko and Mr. McIntire reviewed standard operating procedures of the ditch digger machine for approximately 20 minutes and completed a training form. Mr. McIntire trammed the ditch digger machine; Mr. Fox trammed a locomotive with an empty mine car; and Mr. Ontko trammed the jeep back into the underground coal mine to 15-20 block.

The ditch digger machine was not capable of loading the rocks due to the size of the rocks. It was decided that the ditch digger machine be taken back to the surface. After arriving on the surface, Mr. Fox trammed the locomotive and mine car to the left onto number one loaded track. Mr. McIntire trammed the ditch digger machine to the old empty track switch. Mr. McIntire was followed by Mr. Ontko in the jeep. Mr. McIntire exited the ditch digger machine to throw the old empty track switch. Mr. McIntire re-entered the machine and trammed toward the area where the machine had previously been parked. Between the old empty track switch and the parking area, an approximate 45 foot section of trolley wire is not provided along the track. Near the shop an intersection exists where rubber tired vehicles cross frequently. Track equipment is required to coast unenergized through this area.

The ditch digger machine failed to successfully coast completely through the jump, leaving the trolley pole of the machine unable to reach/contact the energized trolley wire on the other side of the jump. Mr. McIntire exited the machine and picked up a fused jumper cable that was located on the ground at the jump. Mr. Ontko pulled up and parked on the track in a jeep approximately 15 feet from the south end of the jump. Mr. Ontko stated that he saw Mr. McIntire approaching the trolley pole of the machine with one end of the jumper cable in hand.

When Mr. McIntire placed the nip of the jumper cable on the harp of the trolley pole, Mr. Ontko saw sparks or arcing at the point of contact. The machine immediately trammed outby, striking Mr. McIntire and pinning him under the machine. Mr. Ontko ran to the ditch digger machine and removed the nip of the jumper cable from the trolley wire as Mr. McIntire was being drug by the machine. The machine stopped tramming, and Mr. Ontko summoned help on the radio.

Mr. McIntire was conscious, and the two men had a conversation while Mr. Ontko rendered care. Mr. Jess Pugh, shop mechanic, arrived at the scene, set/engaged the hand operated brake of the ditch digger machine and assisted Mr. Ontko. Mr. McIntire was transported by ambulance to Wheeling Medical Park, where he was pronounced dead at 9:25 p.m. on October 17, 2011.

### FINDINGS OF FACT

- 1. The ditch digger 29U is a Jeffery track mounted cutting machine that had the cutting bar removed and a backhoe boom and bucket mounted in its place.
- 2. The ditch digger is powered by the overhead 300 volt D.C. trolley wire through a trolley pole to the electric controller box on the machine.
- 3. The operator's deck is located on the inby end, opposite the trolley wire side of the machine.
- 4. The machine's tram system, when operated from the deck, is an electric tram with a 4 position selector switch. The 4 positions on the switch are (1) off, (2) 1<sup>st</sup> speed, (3) 2<sup>nd</sup> speed, and (4) 3<sup>rd</sup> speed.
- 5. Next to the tram speed selector switch is a forward / reverse selector switch for the tram direction.
- 6. The machine braking system consists of a mechanical brake with a lever in the operator's deck that can be mechanically latched to maintain the selected tension on the brake system.
- 7. When tramming the machine from the operator's deck, the machine will start tramming in the selected direction as soon as the speed selector is moved from the off position.
- 8. The machine has the option to be trammed from an area located in front of the operator's deck. This is accomplished by a lever in the operator's deck being moved to deactivate the electrical tram and engage the hydraulic tram. The hydraulic tram operates at a greatly reduced speed. This tram is used to reposition the machine while loading with the bucket.
- 9. After the accident, the machine was found with the electric tram speed selector in the 3<sup>rd</sup> speed position, and the directional switch was selected to the outby direction. The brake in the operator's deck was activated/applied.

- 10. Testing of the electrical tram showed the following: with the brake in the set position and the speed selector in the 3<sup>rd</sup> position, the machine would tram through the set brake but at a reduced speed; with the brake released and the speed selection in the 3<sup>rd</sup> position, the machine would tram approximately 10 feet in 5 seconds from the stopped position.
- 11. Electrical records indicate on April 12, 2011, a Consolidation Coal Company electrician conducted a load drop test on the trolley system in the area of the accident. The results of this test indicate the rectifier providing the 300 volt D.C. to the trolley system in the accident area can have a maximum trip setting of 5400 amps.
- 12. The short circuit tripping device on the rectifier powering the trolley system in the accident area was found set at 2800 amps.
- 13. The victim attempted to coast the unenergized machine through a 45 foot gap / jump in the overhead trolley wire.
- 14. The machine stopped short of completely clearing the gap/jump and the trolley pole was rotated approximately 180 degrees to attempt to reach the wire but would not.
- 15. A fused jumper cable was attempted to be used to provide the 300 volts necessary to tram the machine to where the trolley pole would reach/contact the wire.
- 16. The victim placed one end of the jumper cable on the trolley and attempted to place the other end of the energized jumper cable on the shunt strap of the trolley pole harp which was turned in the direction in which the machine was traveling.
- 17. With the trolley pole in this position, the victim placed himself directly in front of the wire side wheels on the machine to secure the jumper cable to the trolley pole.
- 18. Due to the speed selector being in the 3<sup>rd</sup> speed position and the jumper cable already energized by the trolley wire, the machine immediately trammed in the direction of the victim when the jumper cable made contact with the trolley pole shunt.
- 19. The jumper cable is 54 feet in length and has a fused nip with a hook on each end of the jumper.
- 20. The jumper cable and nips were found to be in proper working order.
- 21. The old empty track jump crossing has a gap in the trolley wire to allow rubber tire vehicles to cross over the track without traveling under an energized trolley wire.
- 22. The crossing has audible and visual warning lights to indicate a vehicle traveling on the rail near the crossing area.
- 23. At the time of the accident, the area was dark due to sunset, and the weather was clear. Overhead lighting was provided.
- 24. The last annual electrical inspection by West Virginia Office of Miners' Health, Safety and Training was completed on June 20, 2011.
- 25. The last recorded electrical examination made on this machine by an electrician at the mine was on October 12, 2011. No equipment defects were recorded.
- 26. Mr. McIntire did not set/engage the hand operated brake of the ditch digger machine before exiting the machine.
- 27. The ditch digger machine is not operated on a regular basis.
- 28. Mr. McIntire received Safe Work Instruction training, re: the ditch digger machine on October 17, 2011, prior to the accident.
- 29. Mr. McIntire received Annual Refresher Training on January 8, 2011 (underground), and April 8, 2011 (surface).

### **ENFORCEMENT**

Case No.
Violation No.
Chapter 22A, Article 2, Section 37(z)

The ditch digger machine that was involved in a fatal mine accident on October 17, 2011, was not equipped with an emergency stop switch, self-centering valves, or other devices designed to de-energize the traction motor circuit. The victim attempted and failed to completely tram/coast the machine through an unenergized jump/gap in the trolley wire. The victim dismounted from the machine to connect a jumper cable to the trolley wire in order to travel through the jump/gap. When the victim energized the machine, the machine immediately trammed outby, striking and pinning the victim under the machine. The position of the dial type tram controls were engaged to tram outby in 3<sup>rd</sup> point or high speed.

Case No.
Violation No.
Title 36, Series 18, Section 4.1

The ditch digger machine, located at the River Portal, was not maintained in safe operating condition. The two (2) dial type, electric tram controls, located near the operator's deck that govern direction and tram speed, were not marked or identified to distinguish the machine's functions. Also, the hydraulic boom/bucket operating levers and the hydraulic tram control lever, located in front of the operator's deck, were not marked or identified to distinguish the machine's/backhoe's functions.

### RECCOMENDATIONS

- 1. Mine management shall survey all mobile mining equipment in order to ensure compliance with Chapter 22A, Article 2, Section 37(z) of the West Virginia mining laws.
- 2. Safety meetings were conducted with all employees at the mine regarding the following procedures:
  - Before using jumper, ensure that the piece of powered haulage equipment;
     Has park brake set
     Tram controller must be centered
     Trolley pole must be in position for direction of travel
     If applicable, on-board breaker of equipment must be knocked
  - Trolley jumper shall be equipped with proper fusing and hooks
  - Trolley jumper will be attached to trolley pole harp/shunt first
  - Trolley jumper will then be attached to the trolley wire
  - Once use of the jumper is complete, remove trolley wire end of jumper first, before removing equipment end of jumper
- 3. Mine management has eliminated the two jumps/gaps in the trolley wire system at the Shoemaker plant/supply yard.

### **ACKNOWLEDGEMENT**

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledge the cooperation of the employees and management of Consolidation Coal Company, Consol Energy, United Mine Workers of America, and Mine Safety and Health Administration.