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West Virginia Office of Miners' Health, Safety and Training

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December 26, 2002

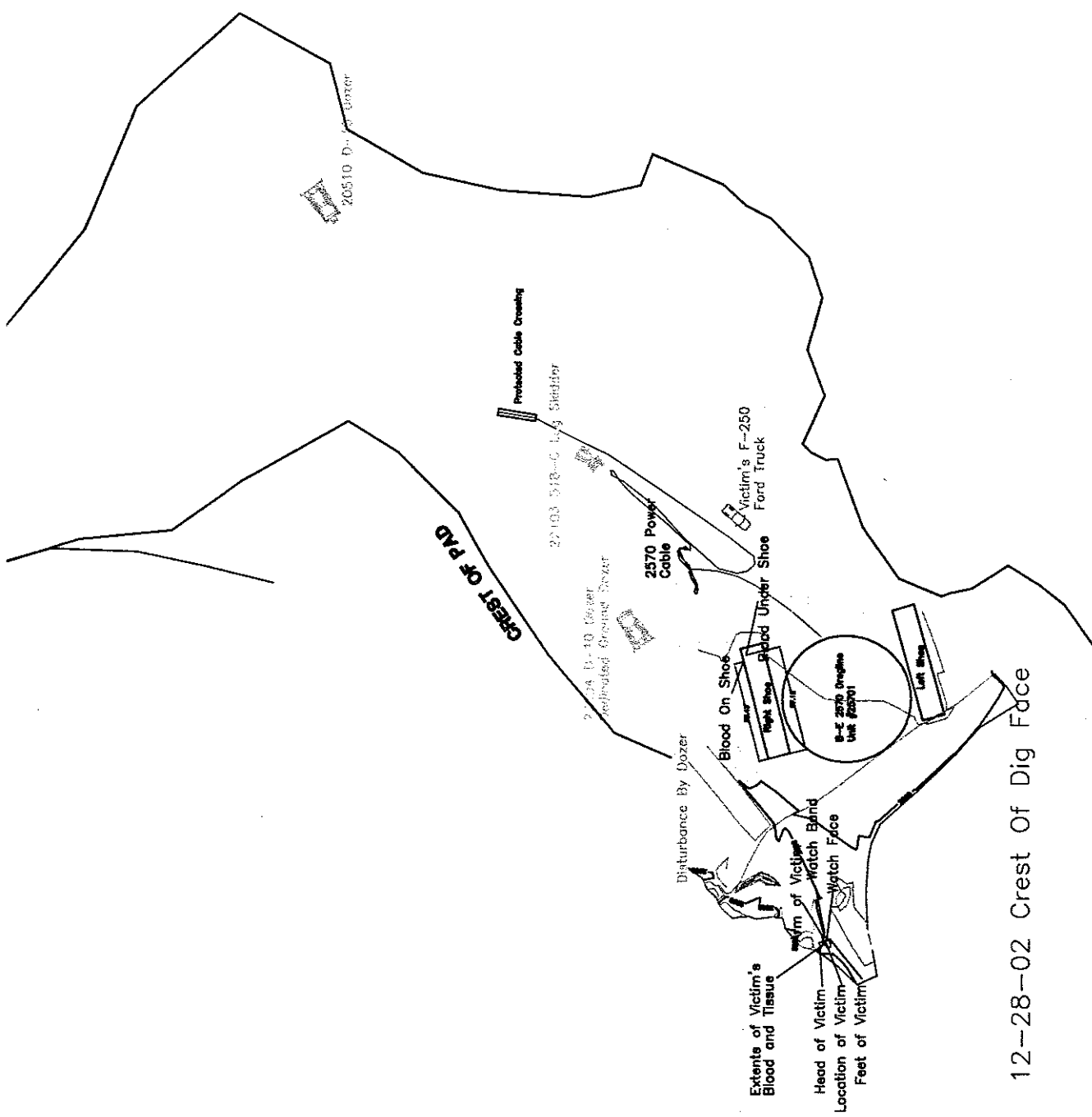
Report Of A Equipment Related Fatality  
(Surface Coal Mine)

Catenary Coal Company  
Samples Mine  
Permit No. S-3023-90

Region IV Office  
142 Industrial Drive  
Oak Hill, West Virginia 25901  
Gary S. Snyder, Inspector-at-Large

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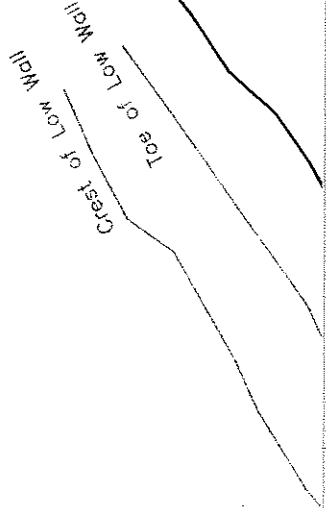
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12-28-02 Crest of Dig Face

12-28-02 Dig Face  
H-Cut 4 Stockton Pit

H-Cut 4 2570 Pit  
Location Of Fatality  
12/27/02  
1"=100'



**REPORT OF AN EQUIPMENT RELATED FATALITY  
CATENARY COAL COMPANY, SAMPLES MINE  
PERMIT NO. S-3023-90**

**GENERAL INFORMATION**

An equipment related accident occurred sometime after 7:00 p.m. on December 26, 2002 at the Catenary Coal Company, Samples Mine. The accident involved an employee of Catenary Coal Company. Daniel G. Gray, dragline oiler, was fatally injured when the right shoe of the Bucyrus-Erie, model 2570-W, dragline struck him. Mr. Gray, age 48, had apparently attempted to get on the dragline while it was operating and did not notify the operator.

Terry L. Keen, Surface Mine Inspector with the West Virginia Office of Miners' Health, Safety and Training, Oak Hill office, learned of the accident at 3:49 a.m. on December 27, 2002. It was confirmed that the injuries were fatal at the time of notification. A joint investigation with the Mine Safety and Health Administration was started immediately.

**DESCRIPTION**

The Catenary Coal Company, Samples Mine, is a surface mine near Eskdale, West Virginia and is located in Raleigh, Kanawha and Boone counties. Multiple coal seams are mined utilizing the mountaintop removal mining method. This mine uses a Bucyrus - Erie, model 2570-W, dragline to remove overburden. The mine produces approximately 15,000 to 20,000 tons of coal daily. This mine has 380 employees, divided into teams that normally work four (4) – twelve (12) hour shifts per week.

On Thursday, December 26, 2002 the day shift dragline crew started at 6:00 a.m. Daniel Gray, oiler, and Bruce Ude, the dragline operator, worked the 12-hour shift without any incidents. The day shift ended at 6:00 p.m. and the oncoming crew, Keith Smith, dragline operator, and Frank Bauer, oiler, started work. Mr. Ude left around 6:00 p.m., but Mr. Gray stayed on the dragline until around 7:00 p.m. At this time, Mr. Gray informed the two evening shift men that he was leaving. He had also told them he would be back to work at 4:00 a.m. Mr. Bauer stated that he watched Dan Gray walk down the steps from the operator's cab. Mr. Smith stated that he watched Mr. Gray, through the rearview mirror get off the machine. He then resumed operations. Around 7:15 p.m., Frank Bauer said he answered a telephone call, on the dragline cellular phone, from someone asking for Daniel Gray. Keith Smith turned the dragline, approximately 90 degrees to the right, so they could see if Mr. Gray's vehicle was still in the parking area. The men saw Mr. Gray's truck and Mr. Bauer told the caller that he was still there. Mr. Smith then turned the machine back to the left and resumed digging.

Around 8:10 p.m., Frank Bauer got off the dragline to prepare to move the machine back for the next cut. He checked the skidder, which was normally used to pull the 25,000-volt dragline power cable, but it would not start. He thought the skidder was out of fuel. Mr. Bauer then contacted Keith Smith and told him about the skidder and decided to use the dozer to assist in the move. Mr. Smith called and informed his supervisor about the problems with the skidder. According to Bauer, he found Daniel Gray's pickup truck parked behind the dragline on the left side of the cable. The truck was running and the lights were on. He moved the truck back away from the machine and out of the way. He then used the dozer to move the dragline cable and skim mud from the ground surface, where the machine would be moved. Around 9:00 p.m. the dragline move began and was completed at 9:30 p.m. According to testimony, the machine moved back 18 steps.

Thomas Bass, evening shift foreman, arrived at the work site around 9:20 p.m., as the move was being finished. According to Mr. Bass, he noticed the pickup truck running behind the dragline. He called Mr. Bauer on the CB radio and asked whom the truck belonged to. Mr. Bauer told him it was Dan Gray's truck. Mr. Bass then asked if he was working over and Bauer said he thought he was. Shortly after Mr. Bass and Mr. Bauer boarded the dragline.

Soon after getting on the machine, the men began talking about Dan Gray's whereabouts. Mr. Bass stated that he told Mr. Bauer to go through the dragline house to see if he could locate him. Mr. Bauer soon came back and told Mr. Bass he did not find him. Around this time, Bass and Bauer ate lunch while Keith Smith continued operating the dragline. At 11:06 p.m., Keith Smith answered a phone call on the cellular phone. The call was for Dan Gray. Mr. Smith told the caller he hadn't seen him and again swung the dragline around to see Mr. Gray's truck still parked in the pit area. Work then resumed. The men discussed the situation, apparently not concerned at this time, and Mr. Bass soon left the area to assume other duties.

Between 12:30 a.m. – 1:00 a.m., Tom Bass, who had been working on reports at the office, called the dragline to see if the men had located Dan Gray. Mr. Bauer again looks inside the dragline house and does not find him.

Around 1:00 a.m., Frank Bauer got on the dozer to smooth down an area directly in front of the dragline. Keith Smith moved the machine back four steps to facilitate this work and then repositioned it. This took approximately ten minutes to complete. Sometime between 1:30 a.m. – 2:30 a.m., Mr. Bauer operated the dragline while Mr. Smith ate lunch. According to Mr. Smith, during his break he also looked inside the machine for Dan Gray. According to the two men's testimony, Mr. Smith turned on the cab ground lights at some point during this time.

At 2:30 a.m., Tom Bass, who is located in another area of the mine, calls the dragline again to see if the men have located Mr. Gray. Frank Bauer went through the machine for the third time and found Dan Gray's cellular phone in the power control room

(PCR). According to Mr. Bauer, when he found the phone he came back to the operator's cab and told Keith Smith they had a real problem. Sometime after 3:00 a.m., Mr. Smith spotted something lying on the ground in front of the dragline on the right. He asked Mr. Bauer if he saw it. At this time they realized it was a body covered with dust. They called for help on the radio. The two men went to the area and confirmed the form they had seen was Dan Gray. Rodney Cairns, an evening shift foreman, heard the call, started emergency procedures and proceeded to the dragline. Thomas Bass, an EMT, heard the call and was the first person to arrive at the scene. He checked Dan Gray's vital signs and stated there was nothing he could do. At 3:41 a.m. Kanawha County Ambulance Service receive the call and was dispatched to the mine. An ambulance arrived at the accident site at 4:03 a.m. and transported the victim to the Medical Examiners office in South Charleston, West Virginia.

### FINDINGS OF FACT

1. The dragline was equipped with the following communication systems: a cellular telephone, a FM radio, a CB radio and a "buzzer" located on the fantail or rear of the machine. Daniel G. Gray had a CB radio in his truck. The skidder and the Caterpillar D-10 dozer being used on the dragline pad each had a CB and FM radio in the cabs.
2. Mr. Gray had left his cellular telephone on the dragline. It was found in the power control room (PCR) and the batteries were being charged. It is the consensus of the accident investigation team that he was going back to the dragline to get his phone when the accident occurred.
3. The Bucyrus-Erie, model 2570-W, dragline has a working weight of 12,785,000 pounds. The revolving frame of this machine is 86.5 feet wide x 99.5 feet long. It has a 380' boom with a 110-yard bucket. The walking shoes measure 14 feet wide x 72 feet long. The machine moves 8.5 feet each step. On December 26, 2002 the machine moved 18 steps, which was approximately 153 feet.
4. Blood was found on the side and bottom of the right shoe, approximately 12 feet from the rear-boarding ladder. This ladder is located 19 feet, 10 inches from the end of the shoe. A second ladder is located toward the front of the shoe. There are five (5) steps on each ladder.
5. According to testimony, the three (3) cab ground lights that were turned on during the shift were not normally used during nighttime operations. These lights tend to glare or blind the operator when they shine on dust being generated or when foggy conditions exist.
6. According to testimony, there were occasions when persons would get on and off of the dragline without notifying the operator.

## **CONCLUSION**

Daniel G. Gray was fatally injured when the right side shoe of the Bucyrus-Erie, model 2570-W, dragline struck him. The victim apparently tried to get on the machine while it was in operation and did not notify the operator. He died as a result of multiple crushing injuries.

## **ENFORCEMENT ACTION**

A non-assessed control order was issued in accordance with Title 56, Series 3, Section 51.1 of the WV Administrative Regulations to preserve evidence following the accident.

The West Virginia Office of Miners' Health, Safety and Training issued one (1) notice of violation during this investigation. This violation is considered to have contributed to the accident and was written as follows:

A notice of violation was issued in accordance with WV Administrative Regulation, Title 56, Series 3, Section 42.2(d); On December 26, 2002, sometime after 7:00p.m., Dan Gray was fatally injured after being struck by the right shoe of the Bucyrus-Erie, Model 2570, dragline. Mr. Gray had apparently attempted to get on the machine while it was in operation and had not notified the equipment operator. This section states that when the equipment operator is present men shall notify him before getting on or off his equipment.

## **RECOMMENDATIONS**

1. Mine management shall instruct all employees as to the requirements of Title 56, Series 3, Section 42.2(d). All employees will be required to contact the dragline operator prior to boarding or leaving the dragline. All employees shall have their contact confirmed by the operator before the employee can get on or off of the machine. All personnel will be instructed to only get on or off of the dragline after the machine has come to a complete stop.
2. Highly visible warning signs shall be placed on the rear of the Bucyrus-Erie, model 2570-W, dragline telling persons to notify the operator by CB radio or company FM radio before approaching or getting on the dragline.
3. Catenary Coal Company shall modify the comprehensive mine safety program in accordance with Title 56, Series 8, Section 9.4 of the WV Administrative Regulations.

**ACKNOWLEDGMENT**

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the employees and management of Catenary Coal Company, and the Mine Safety and Health Administration during this investigation.

Respectfully Submitted:

Gary S. Snyder  
Gary S. Snyder, Inspector-at-Large

Feb. 6, 2003  
Date

Terry L. Keen  
Terry L. Keen, Surface Mine Inspector

2-6-03  
Date



## **APPENDIX**

- Mine Information Sheet
- Victim Information Sheet
- Persons Present During Investigation and Interviews

## MINE INFORMATION

COMPANY Catenary Coal Company

MINE NAME Samples Mine

WV PERMIT S-3023-90

ADDRESS 5914 Cabin Creek Road, Eskdale, West Virginia 25075

COUNTY Kanawha

DATE PERMIT ISSUED July 15, 1991 WORKING STATUS Active

LOCATION Eskdale, West Virginia

UNION \_\_\_\_\_ NON-UNION Yes

DAILY PRODUCTION 15,000 to 20,000 tons

ANNUAL PRODUCTION TO DATE 5,400,000 tons

TOTAL EMPLOYEES 380 NUMBER OF SHIFTS 2

NAME OF COAL BED 7 Block, 6 Block, 5 Block, Lower 5 Block, Stockton, Coalburg

SEAM THICKNESS Various

ACCIDENT INCIDENT RATE 1.94 in 2002 LOST TIME ACCIDENTS 5 in 2002

TYPE OF HAULAGE Truck and Rail

WV OMHST INSPECTOR Terry L. Keen

DATE OF LAST INSPECTION November 22, 2002

NOTIFIED BY Brian Dye, Warehouse Personnel

TIME OF NOTIFICATION 3:49 a.m., December 27, 2002

CMSP – ANNIVERSARY DATE October 1, 2003

CMSP – CONTACT PERSON Terry W. Tolley, Manager of Safety

## VICTIM INFORMATION

NAME OF VICTIM Daniel G. Gray

ADDRESS P.O. Box 523, Hurricane, West Virginia 25173

AGE 48 SOCIAL SECURITY NUMBER [REDACTED]-4455

TOTAL MINING EXPERIENCE Approximately 26 years

EXPERIENCE AT THIS MINE 8 years

AVERAGE NUMBER OF DAYS WORKED PER WEEK 5 - 6

AVERAGE NUMBER OF HOURS WORKED PER WEEK 60 -72 PER DAY 12

LENGTH OF SHIFTS AT MINE 12 hrs. TRAVEL TIME TO/FROM WORK 1 hour

OCCUPATION AT TIME OF ACCIDENT Dragline Oiler

REGULAR OCCUPATION Dragline Oiler

COAL MINER'S CERTIFICATION 2-1459-S

OTHER CERTIFICATIONS \_\_\_\_\_

SPOUSE'S NAME Judy Gray

DEPENDENTS \_\_\_\_\_

DATE OF ACCIDENT 26th DAY OF December, 2002

sometime after 7:00 O'CLOCK p.m.

CAUSE OF ACCIDENT: Daniel G. Gray sustained fatal injuries when he was struck by the right shoe of the Bucyrus-Erie, model 2570-W, dragline. Mr. Gray was attempting to get on the dragline while it was operating and did not notify the operator.

DATE OF DEATH: 26<sup>th</sup> DAY OF December, 2002

## INVESTIGATION

The following persons were present during the on-site investigation conducted on December 27, 2002:

### CATENARY COAL COMPANY

Peter Lawson	President
Terry W. Tolley	Manager of Safety
Eddie Turner	Mine Manager
Mark Heath	Attorney
Michael Colegrove	Miners' Representative
Bryant Fletcher	Miners' Representative
Norris Dyer	Safety Technician
Jeff Calwell	Engineer
Keith B. Smith	Dragline Operator
Franklin Bauer	Dragline Oiler
Rodney Cairns	Supervisor
Thomas E. Bass	Supervisor

### MINE SAFETY AND HEALTH ADMINISTRATION

Sherman L. Slaughter	Surface Coal Mine Inspector/Accident Investigator
Aubrey T. Castanon	Supervisor
Mike Hess	Surface Coal Mine Inspector
Gilbert Young	Accident Investigator

### WV OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

Gary S. Snyder	Inspector-at-Large
Terry L. Keen	Surface Mine Inspector
Michael Rutledge	Safety Instructor

## INTERVIEWS

The following persons were present during the interviews conducted on December 30, 2002:

### CATENARY COAL COMPANY

Mark Heath	Attorney
Terry W. Tolley	Manager of Safety
Charles Russell, IV	Corporate Safety Director
Michael Colegrove	Miners' Representative
Bryant Fletcher	Miners' Representative
Franklin Bauer*	Dragline Oiler
Keith B. Smith*	Dragline Operator
Thomas E. Bass*	Supervisor

Rodney Cairns\* Supervisor

\*denotes persons interviewed

MINE SAFETY AND HEALTH ADMINISTRATION

James Beha Investigation Coordinator  
Sherman L. Slaughter Surface Coal Mine Inspector /Accident Investigator  
Aubrey T. Castanon Supervisor

WV OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

C. A. Phillips Deputy Director  
Gary S. Snyder Inspector-at-Large  
Terry L. Keen Surface Mine Inspector

The following persons were present during the interviews held on January 6, 2003:

CATENARY COAL COMPANY

Terry W. Tolley Manager of Safety  
Mark Heath Attorney  
Michael Colegrove Miners' Representative  
Nick L. Pack\* Supervisor  
Bruce A. Ude\* Dragline Operator

\* denotes persons interviewed

MINE SAFETY AND HEALTH ADMINISTRATION

Sherman L. Slaughter Surface Coal Mine Inspector/Accident Investigator

WV OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING

Gary S. Snyder Inspector-At- Large  
Terry L. Keen Surface Mine Inspector