

**UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION  
COAL MINE SAFETY AND HEALTH**

**REPORT OF INVESTIGATION  
Surface Coal Mine  
Fatal Machinery Accident  
March 6, 2009**

**Dolet Hills Lignite Company Mine  
Dolet Hills Lignite Company LLC  
Mansfield, De Soto County, Louisiana  
ID No. 16-01031**

**Accident Investigators**

**Todd D. Jaqua  
Supervisory Coal Mine Safety and Health Inspector**

**Scott A. Markve  
Coal Mine Safety and Health Inspector**

**David Hamilton  
Coal Mine Safety and Health Inspector**

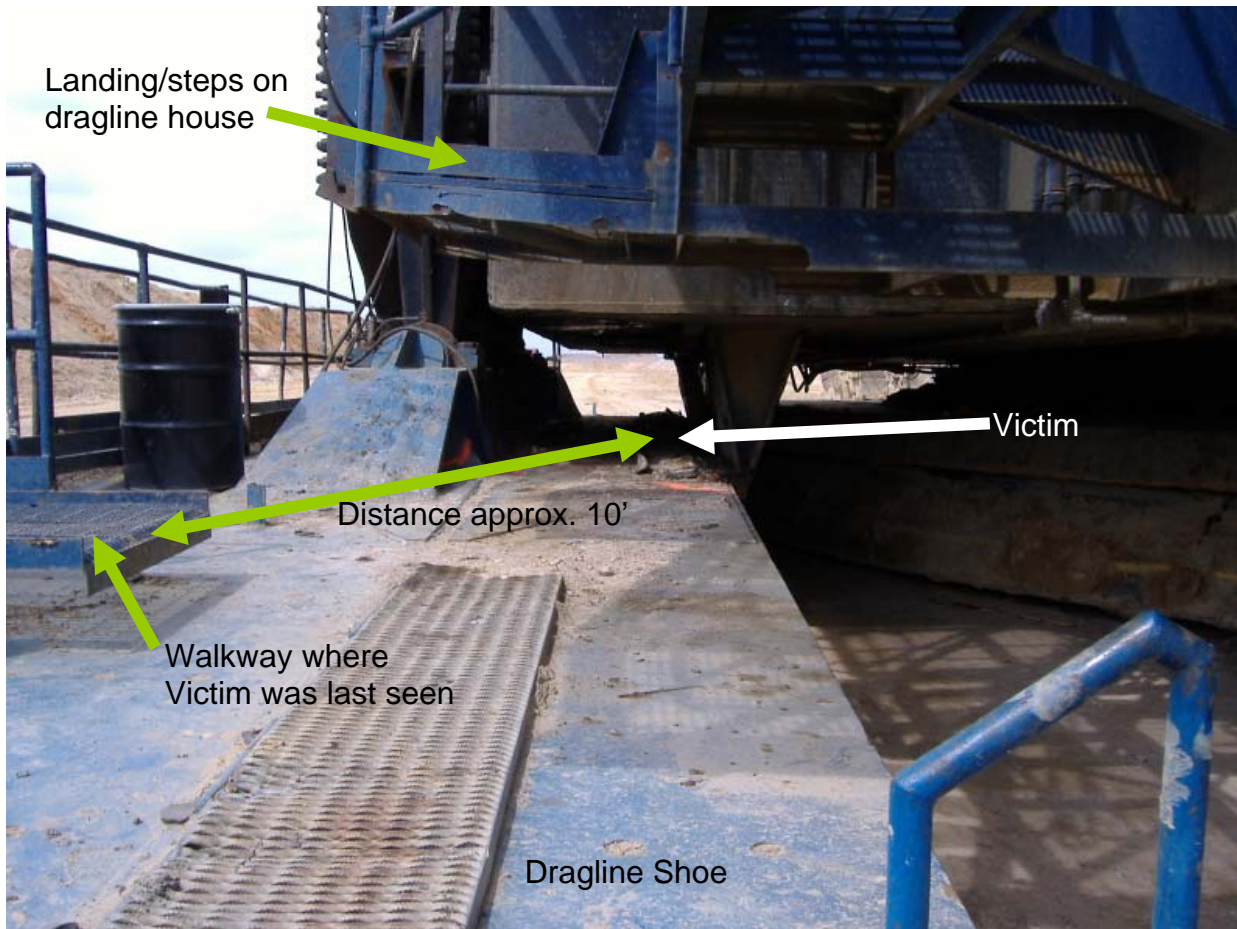
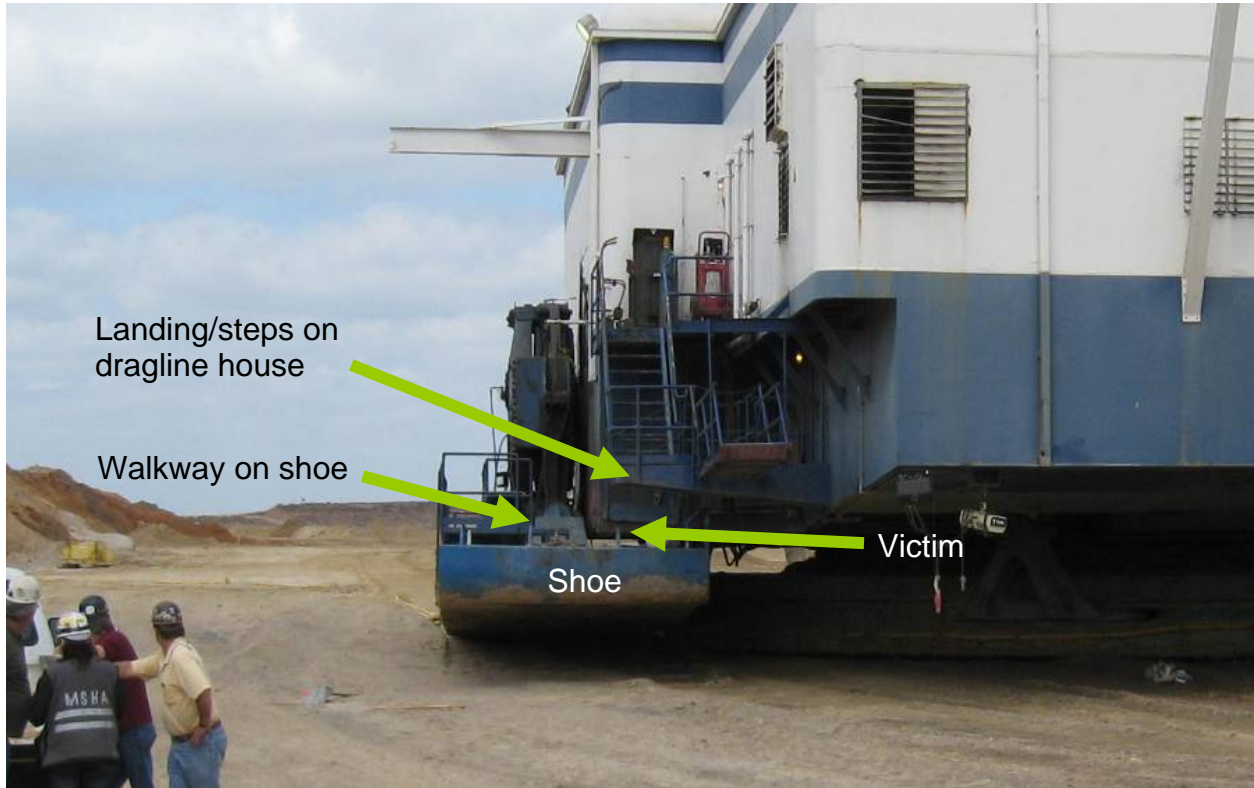
**George M. Nadzadi  
Training Specialist Supervisor, Educational Field Services**

**Originating Office  
Mine Safety and Health Administration  
District 9  
P.O. Box 25367, Denver, Colorado 80225  
Allyn C. Davis, District Manager**

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# PHOTOS OF ACCIDENT SCENE



## OVERVIEW

On Friday, March 6, 2009, Stanley Freeman, Dragline Oiler, age 44, received fatal crushing injuries while the dragline was walking from the northwest to the southeast end of the dragline bench, designated as the N area, located at the Dolet Hills Lignite Company mine. Freeman, who had just completed manually adding grease to the slide/cam mechanism on the left walking shoe, was last seen standing on the shoe walkway, apparently waiting to board the dragline house. He was later found approximately 10 feet from this location, crushed between the top of the walking shoe and the bottom of the dragline house. A minimum clearance of approximately 7 inches existed at this location. There were no witnesses to the accident.

The accident occurred due to management allowing the dragline oiler to get on and off the dragline house while the dragline operated, exposing the oiler to the hazards of the dragline's operation. Freeman was not visible to the dragline operator or able to communicate directly with him. Failure to provide an adequate means of communication between the oiler and dragline operator contributed to the cause of the accident in that the oiler was not able to notify the dragline operator of his intention to board the dragline house. The necessity to manually apply additional grease to the slide/cam mechanism during the dragline walking process required the oiler to travel onto the walking shoe during operation, thus exposing him to the dragline's movement and also contributing to the cause of the accident.

## GENERAL INFORMATION

The Dolet Hills Lignite Company mine is owned and operated by the Dolet Hills Lignite Company LLC (Dolet Hills). Dolet Hills is a subsidiary of American Electric Power Company, Inc./Southwestern Electric Power Company. The mine is located 2.6 miles south of Evelyn, De Soto Parish, Louisiana on Highway 177. Production activities started at the mine in October 1981.

The Blue and Yellow lignite coal seams are mined with average thicknesses of 60 and 27 inches, respectively. Highwall heights varied from 20 to 140 feet. Overburden is removed using two walking draglines. The parting between the coal seams is cleaned with track dozers. The coal is loaded with excavators and front end loaders into haul trucks and transported to the central truck hopper or the stockpile area.

The mine works a 12-hour rotating production shift, seven days per week. The production shifts start at 7:00 a.m. and 7:00 p.m. The mine has 213 employees, and produced 3,284,659 tons of coal in 2008.

Prior to the accident, the last regular inspection conducted by the Mine Safety and Health Administration (MSHA) was completed on December 17, 2008. The non-fatal days lost (NFDL) injury incidence rate for the mine for 2008 was 0.90, compared to the National NFDL rate of 1.25 for surface mines for 2008.

The principal officials at the mine were: Dennis Meyer, General Manager; Dale Hill, Director of Operations; Terry Bowden, Mine Operations Foreman; and Rodney Basco, Safety Administrator.

## DESCRIPTION OF THE ACCIDENT

At approximately 6:45 a.m., Friday, March 6, 2009, the C dragline crew consisting of Stanley Freeman, Dragline Oiler and victim; Brian Settle, Dragline Operator; and Jed Mitchell, Bulldozer Operator, arrived at the N area dragline bench to begin their shift. The crew normally consisted of an operator, an oiler and a bulldozer operator. The crew received their work assignment to move the Number 285 dragline approximately 341 yards from the northwest to the southeast end of the dragline bench from Terry Bowden, Mine Operations Foreman. Jim Harper, Electrician, and Charlie Fullerton, Water Truck Operator, were assigned to assist the dragline crew.

The move required the dragline to take steps or to “walk” from one area to another by taking several steps, which is referred to as “deadheading.” Freeman’s duties as dragline oiler included applying additional grease to the slide/cam mechanisms on the walking shoes to ensure that they were adequately lubricated for the walking procedure. This was done by manually placing 8-ounce pre-filled bags of grease on the slide and allowing the slide cam to crush the bags. Freeman would then move the grease on the slide with a 48-inch long wooden lath. Freeman would also ensure that the dragline was maintaining the planned course of travel, as well as keep the dragline trailing cable, which was lying on the ground, out of the travel path of the dragline. Freeman also was required to ensure that the bull gears in the dragline house were properly lubricated. These duties required Freeman to travel from one side of the machine to the other, sometimes getting off and on the dragline, out of sight of the dragline operator.

The C dragline crew relieved the night shift dragline crew and discussed with them the events of the previous shift. The crew discussed the plan to continue walking the dragline up the dragline bench. According to the dragline maintenance report, the dragline took 99 steps from the start of the shift. The dragline operated for approximately one hour and forty-six minutes during the shift, until it was shut down when Freeman was discovered. Prior to the accident, Harper observed Freeman on the left side dragline shoe (off-cab side) lubricating the slide/cam mechanism. Harper last saw Freeman at the walkway of the dragline shoe waiting to board the landing/steps of the dragline house. Fullerton arrived at the southeast end of the dragline bench and

attempted to contact Freeman by CB radio to ask if he needed more water on the bench. Freeman did not respond. Mitchell replied that the bench had enough water and advised Fullerton to stand by. At that time, Mitchell was preparing the dragline bench between the dragline and the water truck. Mitchell stopped the bench preparation and traveled towards Harper's location in front of the dragline to assist moving trailing cable. When he got along the left side of the dragline, he saw Freeman on the inside of the dragline shoe. He immediately called Settle to shut down the dragline and went to check on Freeman. At approximately 8:30 a.m., the seriousness/fatal nature of Freeman's injuries were obvious. A "mayday" alert was called for the dragline bench area and local and federal authorities were notified of the fatal accident.

## **INVESTIGATION OF THE ACCIDENT**

The MSHA Call Center was notified of the accident by Dennis Meyer, General Manager, at 8:48 a.m. CST, on Friday, March 6, 2009. William Denning, Staff Assistant and Accident Investigation Coordinator for District 9, was notified of the accident by the Call Center at 9:00 a.m., CST. Inspectors Kendell Whitman, Wayne Johnson, David Hamilton, and Lois Duwenhoegger were dispatched from inspection duties in the Longview, Texas field office area. A Section 103(k) Order was issued to ensure the safety of persons at the mine. An accident investigation team was assembled and immediately dispatched to the mine. Photographs and measurements were taken at the accident scene. Formal interviews were conducted at the mine. The dragline was examined to determine if any equipment related factors contributed to the cause of the accident. Refer to Appendix A for a complete list of persons that participated in the investigation.

## **DISCUSSION**

### Dragline Information

The dragline involved in the accident was a 1982 Bucyrus-Erie (Bucyrus International, Inc.) model 1570-W walking dragline, Serial Number 138908, Lot 29, and Company Number 285. This dragline was assembled and put into service at the mine in 1999. The dragline walking shoes were 12 feet wide and 70 feet long. The outside diameter of the dragline tub was 70 feet. The dragline was inspected during the investigation and no equipment defects were observed that could have directly caused the accident.

### Dragline Walking Procedures

The dragline moves horizontally along the ground by using pontoon-type walking shoes, one on each side of the machine, which rotate on cam mechanisms attached to the dragline tub and housing. As the cams rotate, they place the walking shoes on the ground and lift the dragline tub and house. The tub and house are then moved horizontally approximately 8.5 feet and placed back on the ground as the cams continue to rotate. Each complete movement is referred to as the dragline taking a "step" or

walking. It was during this operation of moving the dragline that the accident occurred.

The walking procedure required the dragline to be aligned on the bench to maintain solid footing and follow the plotted course. This was accomplished by the following procedures:

1. A groundman, usually the dragline oiler, working with the dragline operator, would align the dragline in the required direction of travel.
2. The dragline operator would position the bucket on the ground and reel out the drag ropes to lessen the weight on the boom and to prevent the swinging motion of the bucket.
3. The dragline operator would initiate the propel function and start walking the dragline backwards by taking steps.
4. The dragline moved approximately 8.5 feet each step.

During the walking and repositioning procedure, the oiler's duties included ensuring all lubricating systems were functioning adequately. The oiler would rove throughout the dragline and check the various systems inside and outside the machine house. During this process, the oiler would dismount the dragline and check the dragline alignment and then re-board the machine. The oiler would also travel from the dragline house to the walking shoes to add extra grease manually to the walking cam mechanism. The dragline typically would not stop during this process.

During the investigation, the dragline was operated for two steps to set baseline measurements; step one took 50 seconds and step two took 42 seconds, for an average of 46 seconds per step. The total distance the dragline was scheduled to walk during this move was 341 yards (1,023 feet). At 8.5 feet per step, it would take approximately 120 steps to complete the move. At approximately every six-step interval, a two-minute time delay occurred to reset the bucket. These delays, and the time to walk the dragline the total distance, would take approximately 2 hours and 12 minutes.

#### Location of Victim

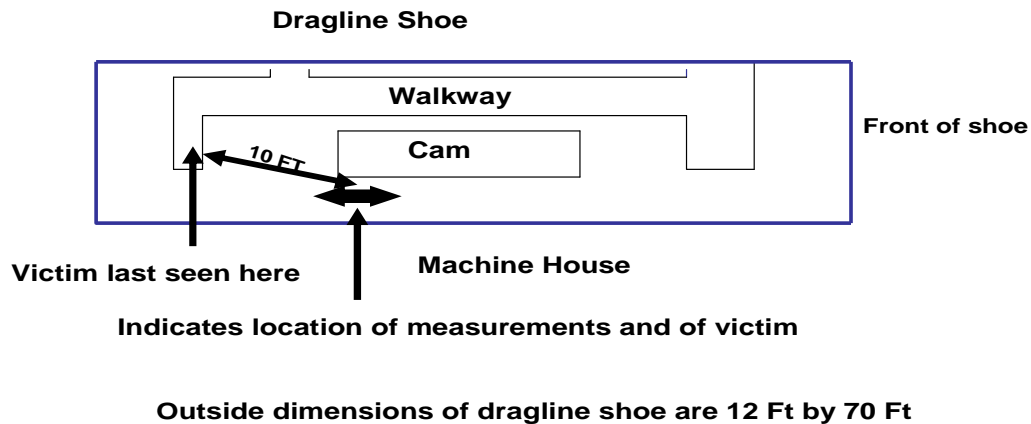
Freeman was found approximately 10 feet from the walkway on the left dragline shoe where he was last seen standing, apparently waiting to board the dragline house. He was found lying in a prone position on top of the shoe, between the inside edge of the shoe and the cam housing. The victim was located parallel to the inside edge of the shoe, facing forward and his feet nearer to the walkway where he was last seen. In this location, he was positioned between the cam housing on his left and the shoe guide located on the bottom of the house to his right. The cam housing and shoe guide prevented Freeman from rolling left or right to avoid being crushed by the dragline house. His hard hat was found on the top of the shoe, just to the side of his head, and was undamaged. He was wearing the electrical gloves that were normally used to

handle the dragline trailing cable. Freeman did not have a portable radio with him at the time of the accident.

### Clearance Distances between Top of Walking Shoe and Bottom of House

Measurements were taken between the top of the left walking shoe and the bottom of the dragline house at the location where Freeman was found to determine the clearance distance between the shoe and house during the walking procedure. The left shoe is located on the opposite side of the dragline from the operator's cab. Refer to Appendix B for the shoe location. With the walking shoe fully retracted in the minimum clearance position, the minimum distance from the shoe to the machine house was 7.25 inches. The clearance increased to 8.37 inches at the center of the area and 10.5 inches along the inside edge of the dragline shoe closest to the tub. With the walking shoe just touching the ground, measurements at these locations ranged between 34.25 and 35.75 inches. In the high cam position, where the maximum clearance occurred, the measurements ranged between 56 and 56.5 inches.

Refer to the aerial view sketch below for location of measurements and victim:



### Travel Distance after Victim was First Injured

Evidence at the scene indicated that the dragline took 12 steps after Freeman was initially injured. Twelve steps would take approximately 11 to 12 minutes to complete.

### Communication

During the walking procedure, the dragline oiler could not communicate at all times with the dragline operator. The oiler could not be seen or heard by the operator when on the left side of the dragline (off side of operator's cab). Five methods of communication were available at the dragline:



1. Hand-held radios were available on the dragline; however, the radios were seldom used due to their ineffectiveness. The Motorola EM1000R hand sets were tested during the investigation and communication could not be understood, even when in line of sight. Freeman did not have a radio at the time of the accident.
2. A buzzer/horn system was located in the operator's cab and was accessible from the ground at the rear of the dragline. The horn/buzzer system was not accessible from the walking shoes of the dragline.
3. Hand signals were used when the oiler was within sight of another person on the dragline pad. Signals by dragline operator and dragline oiler personnel varied. The mine did not have an established set of hand signals for all persons on all shifts. Freeman could not be seen by the dragline operator on the off-cab side of the dragline where the accident occurred.
4. Uniden Pro 520 XL radios were available in the cabs of the ground tractor, water truck, ground bulldozer and dragline cab. These radios were mounted in the equipment and miners had to be in the cab of the respective equipment order to use the radios.
5. CB radios were also mounted in the cabs of the equipment.

Freeman did not have access to or use of the available communication systems at the time of the accident.

### Examinations

The records of mandatory examinations and on-site evaluation of conditions indicated that examinations required by Title 30 Code of Federal Regulations, Part 77 were being properly conducted and recorded

### Loose Bolts on Cam Frame (C-frame)

Three bolts on the C-frame of the cam assembly on the left dragline shoe (shoe where accident occurred) were found to be loose the shift prior to the accident. The dragline operator on that shift told the dragline oiler about these loose bolts. The dragline operator stated that a contractor had recently performed repairs at this area of the C-frame and had torqued all the bolts after the repair. He stated that this repair sometimes requires the bolts to be re-tightened as they can still come loose. It could not be determined if the information about the loose bolts was passed on to Freeman at shift change time. The bolts were located near the base of the C-frame. Each consisted of a steel rod threaded on both ends with retaining nuts on both ends. One end was visible from the walkway, located in front of the C-frame in the area where Freeman traveled to put grease on the cam. The other end was visible from the back of the C-frame, where Freeman was found after the accident. See the Potential Accident Scenarios Section below for the possible role that these loose bolts played in the fatality.

### Lubrication

The dragline slide/cam mechanism was lubricated automatically with a grease ejector system. The slide/cam was lubricated during each step however; it needed additional lubrication to prevent excessive wear during longer walking distances as was occurring during the deadheading operation at the time of the accident. The additional lubrication was provided by placing grease bags on the slide/cam by hand. The excess grease was scraped off the sides of the slide and spread with a wooden survey lathe onto the top of the slide. Freeman had traveled to the left shoe just prior to the accident to apply grease to the slide/cam mechanism during the deadhead operation.

#### Training and Experience

Training records were reviewed and mine personnel were interviewed regarding training provided to Freeman and other employees. Freeman had five years of mining experience, all at this mine. He had been trained to be a dragline oiler for one year. It was determined that Freeman had received the training required by MSHA regulations.

#### Company Procedure for Mounting/Dismounting Dragline

A company memorandum, dated November 2, 2006, included specific procedures for mounting and dismounting draglines. This memorandum required the dragline to come to a full stop. However, the memorandum allowed an exception to this requirement for dragline oilers during "deadhead walks," when the oiler was required to grease the walking cam. It also directed the dragline oilers to mount and dismount the dragline shoe at the front of the shoe when the shoe was on the ground. A company memorandum was issued March 10, 2009, rescinding the exception and requiring the dragline to stop completely, prior to all persons mounting or dismounting the machine. A non-contributory violation was issued on a separate inspection event for a violation of 30 CFR, § 77.1607(f) with regard to notification to the dragline operator prior to getting on or off the equipment.

#### Possible Accident Scenarios

Since there were no witnesses to the accident, the reason Freeman was positioned at the accident site is unknown. This location was outside the walkway and handrail system on the dragline shoe and was not an area that was required to be visited during dragline operations. There were no duties/functions that the dragline oiler was required to perform in that area.

Freeman was last seen standing on the walkway on the left shoe, apparently waiting to board the dragline house after having added grease to the cam/slide mechanism on the shoe. To board the house, Freeman had to wait during the walking process for the walkway to line up with the landing/steps on the house. This occurred once during each step as the shoe rotated on the cam assembly. When aligned, the walkway on the shoe and the landing on the house presented an easy stepping situation from the shoe to the house. See Appendix D for a picture of the step required. Freeman was found approximately 10 feet away from the walkway where he was last seen waiting to board

the house. During the investigation, the walking shoe was observed to wobble and shake noticeably as the shoe rotated during the walking process.

Investigators observed a hand/finger mark on the left-side, middle handrail on the house landing/steps. The mark could have been made by Freeman as he placed his hand on the rail and it slid off in an attempt to board the house. A short vertical piece of angle iron was located on the dragline shoe a short distance from the end of the walkway where Freeman was last seen. See Appendix E for a view of this angle iron. The angle iron had a smudge on it that could have been made by a shoe impact. It is possible that Freeman attempted to board the dragline house before the walkway and landing lined up, lost his balance and grip and fell, striking the angle iron, and stumbled, landing between the shoe and the house where he was found.

A second scenario involves the three bolts on the C-frame assembly that were reported to have been found loose the shift prior to the accident. These bolts were located near the bottom of the C-frame and could be viewed both from the front and back side of the C-frame. See discussion above regarding these bolts and their location. Freeman could have entered the area where he was injured to look at the back-end of these bolts. However, this scenario is not considered likely as the movement of the shoe and house, with clearances between 7 and 56 inches, would preclude ready access to this area for inspection purposes. In addition, an experienced oiler would have likely realized the hazard presented by the moving dragline shoe in this area and would not have entered it during the walking process.

A third scenario also involves inspection of the bolts by Freeman. He may have stepped onto the shoe from the walkway to view the bolt ends from a distance. In doing this, he may have lost his balance, due to the movement of the shoe, stumbled and fell into the area where he was found.

## **ROOT CAUSE ANALYSIS**

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. The following root causes were identified:

1. Root Cause: Mine management allowed the dragline oiler to manually lubricate the cam/slide mechanism while the dragline was in motion. This required the oiler to travel to the walking shoes while the dragline was in operation to apply grease to the mechanism.

Corrective Action: The mine operator implemented procedures on March 10, 2009, that stated, "Effective immediately, dragline oilers will not be permitted to toss grease bags into the cam assembly while the dragline is walking."

2. Root Cause: The mine operator did not provide adequate means of communication between the oiler and dragline operator, such that the oiler could not always communicate with others while working alone on the dragline or notify the operator when mounting or dismounting the dragline.

Corrective Action: Mine management implemented procedures on March 10, 2009, to provide positive communications at all times between the dragline oiler and dragline operator.

## CONCLUSION

The accident occurred due to management allowing the dragline oiler to get on and off the dragline house while the dragline operated, exposing the oiler to the hazards of the dragline's operation. Failure to provide an adequate means of communication between the oiler and dragline operator contributed to the cause of the accident in that the oiler was not able to notify the dragline operator of his intention to board the dragline house. The necessity to manually apply additional grease to the slide/cam mechanism during the dragline walking process required the oiler to travel onto the walking shoe during operation, thus exposing him to the dragline's movement and also contributing to the cause of the accident.

Approved by:

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Allyn C. Davis  
District Manager

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Date

## ENFORCEMENT ACTIONS

1. Order No. 8463015 was issued to Dolet Hills Lignite Company LLC, under the provisions of Section 103(k) of the Mine Act, to ensure the safety of persons involved in the recovery work at the fatal accident site until an investigation could be conducted and the area determined to be safe before resuming operations.
2. Citation No. 6687477 was issued to Dolet Hills Lignite Company LLC, under the provisions of Section 104(d)(1) of the Mine Act, for a violation of 30 CFR, §77.409(a). The Bucyrus Erie model 1570W dragline (Company Number 285) was operated in the presence of the dragline oiler, Stanley Freeman, who was fatally injured and exposed to hazards from the dragline's operation on March 6, 2009. The oiler was required to lubricate the slide/cam mechanism by hand, while the dragline was in operation (reference Order No. 6687478). The oiler performed work on the dragline while alone, where he could not be seen or heard (reference Order No. 8463608). The mine operator was aware of these hazardous work practices and failed to correct them. The mine operator engaged in aggravated conduct above ordinary negligence. This is an unwarrantable failure to comply with mandatory standards.
3. Order No. 6687478 was issued to Dolet Hills Lignite Company LLC, under the provisions of Section 104(d)(1) of the Mine Act, for a violation of 30 CFR, §77.404(d). The slides and cams of both shoes on the Bucyrus Erie model 1570W dragline (Company Number 285) were manually provided additional lubrication by the dragline oiler during walking/deadheading operations on March 6, 2009, while the cams were in motion. Pails with bags of grease were located on the shoes where the oiler would place the bags by hand onto and between the slide and cam assembly. Wooden laths were used to scrape excess grease off the sides of the slide and reapply grease to the top wear surfaces. This practice of manually applying grease to the moving cams existed for years. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by allowing such a practice to continue. This violation is an unwarrantable failure to comply with a mandatory standard. The dragline oiler received fatal crushing injuries while on the dragline shoe on March 6, 2009, after having manually applied grease to the slide/cam on the off-cab side dragline shoe.
4. Order No. 8463608 was issued to Dolet Hills Lignite Company LLC, under the provisions of Section 104(d)(1) of the Mine Act, for a violation of 30 CFR, §77.1700. On March 6, 2009, the dragline oiler at the Bucyrus Erie model 1570W dragline (Company Number 285) worked alone in a hazardous area where he could not communicate with others, be heard, or seen. Neither the dragline operator nor any of the support crew on the dragline pad had constant communication or constant sight of the dragline oiler. Although radios were provided at the dragline, they

were not adequate for communication in this environment. Management was aware of the inadequacy of the radio communication. This practice contributed to the accident that occurred on March 6, 2009, at the dragline, that resulted in the death of the dragline oiler. The mine operator engaged in conduct above ordinary negligence by not correcting this unsafe practice. This is an unwarrantable failure to comply with a mandatory standard.

# APPENDIX A

## List of Persons Participating in the Investigation

### DOLET HILLS LIGNITE COMPANY LLC OFFICIALS

Dennis Meyer	General Manager
Dale Hill	Director of Operations
Terry Bowden	Mine Operations Foreman
Steve Moore	Dragline Supervisor
Dave Bosely	Director Mine Engineering
John McCorkle	Safety & Training Coordinator
Rodney Basco	Safety Administrator

### DOLET HILLS LIGNITE COMPANY LLC EMPLOYEES

Brian Settle	Dragline Operator
Jed Mitchell	Bulldozer Operator
Jimmy Harper	Electrician
Charlie Fullerton	Water Truck Driver
Stanley Adams	Dragline Operator
Harris Urda	Dragline Oiler
Tommy Walker	Dragline Oiler
John Brittain	Dragline Oiler
Tim Weldon	Dragline Oiler
Scott Youngblood	Miner's Representative

### AMERICAN ELECTRIC POWER COMPANY, INC./ SOUTHWESTERN ELECTRIC POWER COMPANY OFFICIALS

Kenneth McCullough	Director of Safety & Health
Gary M. Dimmerling	Director of Mining Operations
David Grubb	Manager, Safety and Health

### MINE SAFETY AND HEALTH ADMINISTRATION

Scott A. Markve	Coal Mine Safety and Health Inspector / Lead Accident Investigator
Todd D. Jaqua	Supervisory Coal Mine Safety and Health Inspector/Accident Investigator
David Hamilton	Coal Mine Safety and Health Inspector/Accident Investigator
Kendell Whitman	Coal Mine Safety and Health Inspector
Lois Duwenhoegger	Coal Mine Safety and Health Inspector
Wayne Johnson	Coal Mine Safety and Health Inspector
George M. Nadzadi	Educational Field Services, Training Specialist Supervisor/Accident Investigator

## APPENDIX B

PICTURE OF DRAGLINE AND VICTIM'S LOCATION  
ON DRAGLINE SHOE





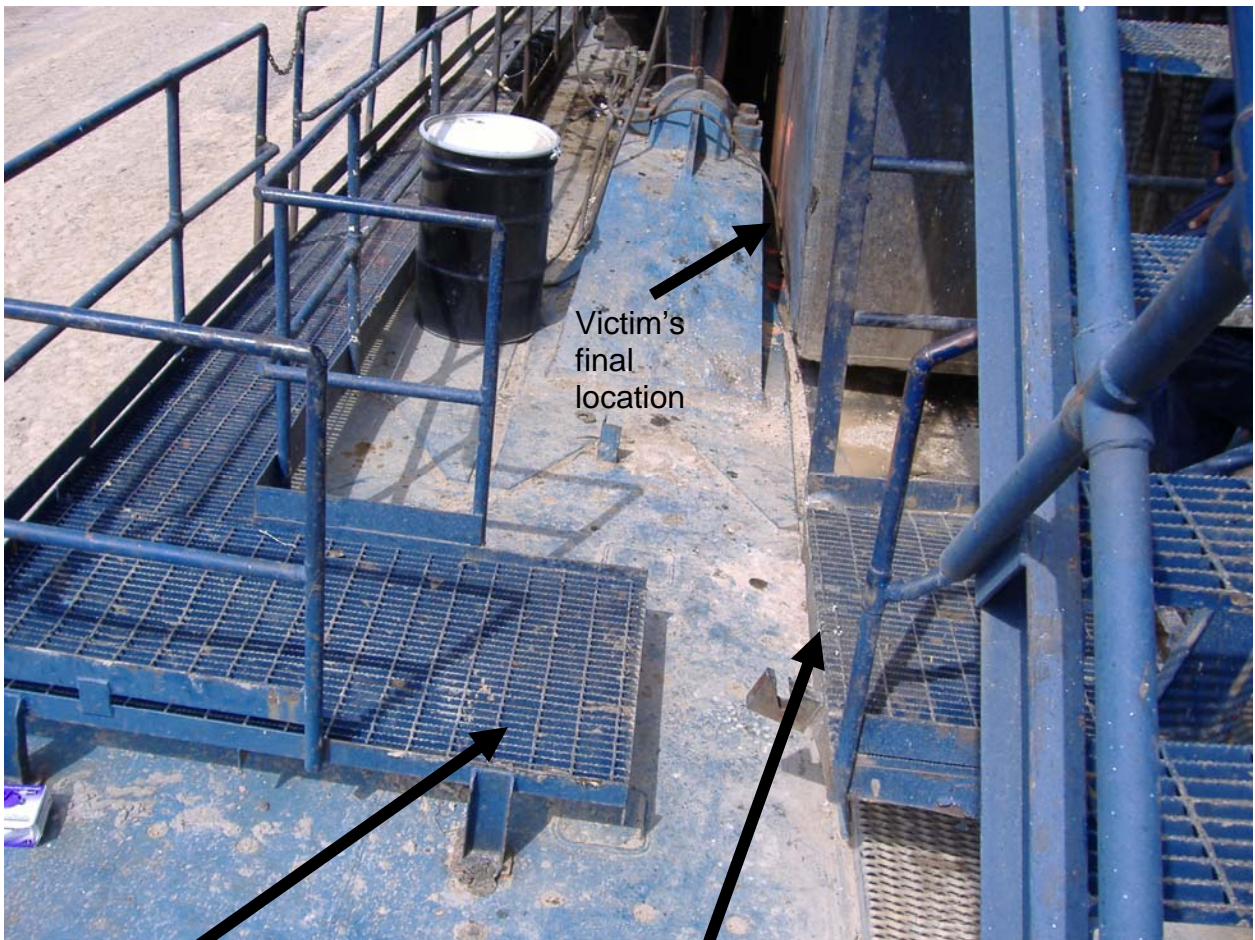
## APPENDIX C

PICTURE OF VICTIM'S LOCATION BETWEEN TOP OF WALKING SHOE AND BOTTOM OF DRAGLINE HOUSE



## APPENDIX D

PICTURE OF WALKWAY WHERE VICTIM WAS LAST SEEN AND THE LANDING/STEPS ON THE DRAGLINE HOUSE



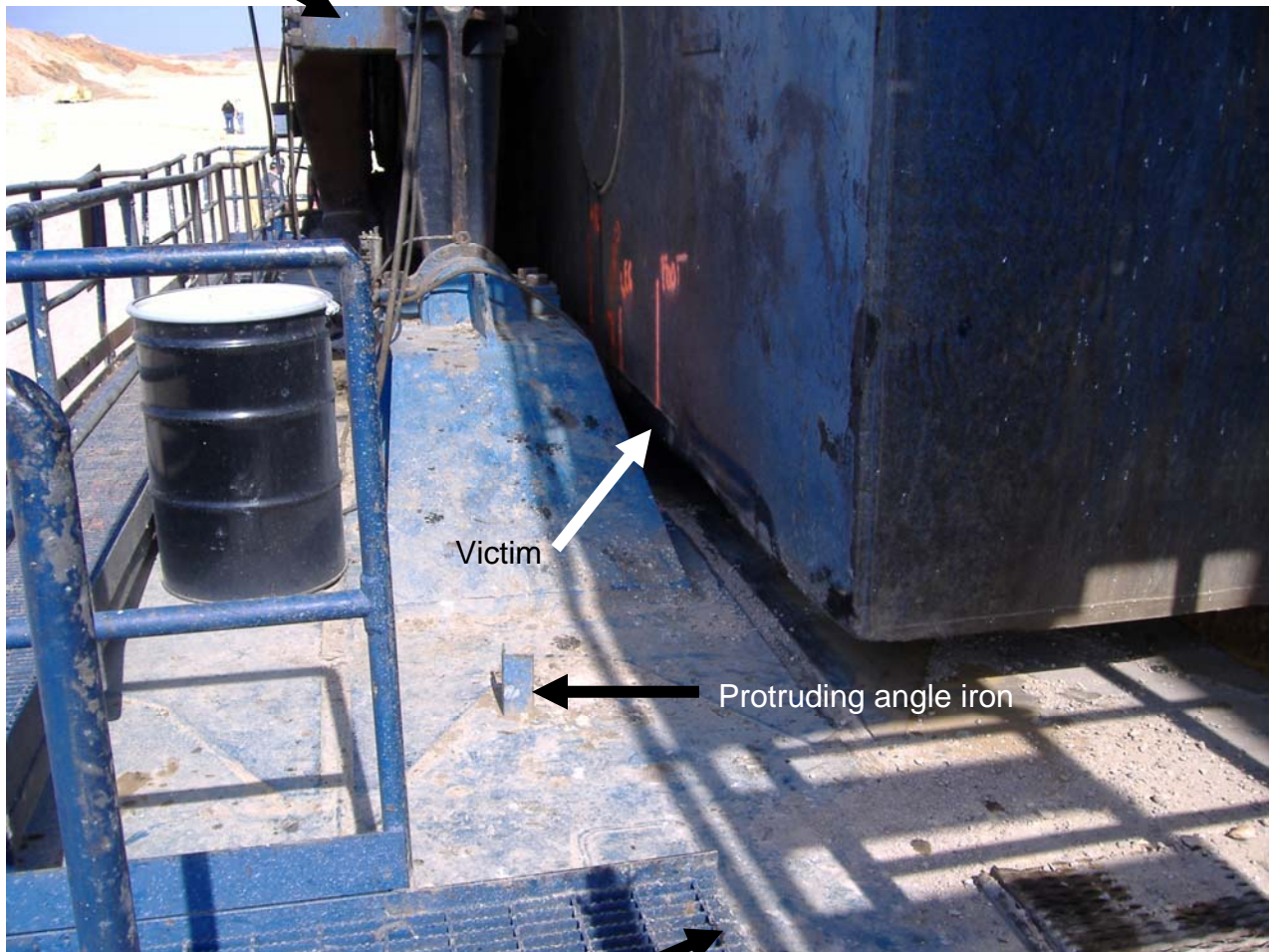
Walkway where Victim was last seen

Landing/steps on dragline house

## APPENDIX E

PICTURE OF WALKWAY WHERE VICTIM WAS LAST SEEN,  
PROTRUDING ANGLE IRON, LOCATION OF  
CAM/WALKING MECHANISM

Cam/Walking mechanism



Walkway where Victim was last seen

Accident Investigation Data - Victim Information

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



Event Number: 4 2 6 7 6 3 0

**Victim Information:** 1

1. Name of Injured/Ill Employee: Stanley N. Freeman  
2. Sex: M  
3. Victim's Age: 44  
4. Last Four Digits of SSN:  
5. Degree of Injury: 01 Fatal

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: a. Date: 03/06/2009 b. Time: 8:25  
7. Date and Time Started: a. Date: 03/06/2009 b. Time: 7:00

8. Regular Job Title: 105 Oiler  
9. Work Activity when Injured: 023 Get on/off equipment  
10. Was this work activity part of regular job? Yes  No

11. Experience  
a. This: Years 1, Weeks 0, Days 0  
b. Regular Job Title: Years 1, Weeks 0, Days 0  
c. This Mine: Years 5, Weeks 2, Days 4  
d. Total Mining: Years 5, Weeks 2, Days 4

12. What Directly Inflicted Injury or Illness? 076 Surface mining equip./dragline  
13. Nature of Injury or Illness: 170 Crushing injuries

14. Training Deficiencies:  
Hazard: | | | New/Newly-Employed Experienced Miner: | | | Annual: | | | Task: | | |

15. Company of Employment:(If different from production operator) Operator  
Independent Contractor ID: (if applicable)

16. On-site Emergency Medical Treatment:  
Not Applicable: | | | First-Aid: | | | CPR: | | | EMT: | | | Medical Professional: | | | None:

17. Part 50 Document Control Number: (form 7000-1) 220090710017  
18. Union Affiliation of Victim: 9999 None (No Union Affiliation)

**Victim Information:**

1. Name of Injured/Ill Employee:  
2. Sex:  
3. Victim's Age:  
4. Last Four Digits of SSN:  
5. Degree of Injury:

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:  
7. Date and Time Started:

8. Regular Job Title:  
9. Work Activity when Injured:  
10. Was this work activity part of regular job? Yes  No

11. Experience:  
a. This: Years, Weeks, Days  
b. Regular Job Title: Years, Weeks, Days  
c. This Mine: Years, Week, Days  
d. Total Mining: Years, Weeks, Days

12. What Directly Inflicted Injury or Illness?  
13. Nature of Injury or Illness:

14. Training Deficiencies:  
Hazard: | | | New/Newly-Employed Experienced Miner: | | | Annual: | | | Task: | | |

15. Company of Employment: (If different from production operator)  
Independent Contractor ID: (if applicable)

16. On-site Emergency Medical Treatment:  
Not Applicable: | | | First-Aid: | | | CPR: | | | EMT: | | | Medical Professional: | | | None: | | |

17. Part 50 Document Control Number: (form 7000-1)  
18. Union Affiliation of Victim:

**Victim Information:**

1. Name of Injured/Ill Employee:  
2. Sex:  
3. Victim's Age:  
4. Last Four Digits of SSN:  
5. Degree of Injury:

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:  
7. Date and Time Started:

8. Regular Job Title:  
9. Work Activity when Injured:  
10. Was this work activity part of regular job? Yes  No

11. Experience:  
a. This: Years, Weeks, Days  
b. Regular Job Title: Years, Weeks, Days  
c. This Mine: Years, Week, Days  
d. Total Mining: Years, Weeks, Days

12. What Directly Inflicted Injury or Illness?  
13. Nature of Injury or Illness:

14. Training Deficiencies:  
Hazard: | | | New/Newly-Employed Experienced Miner: | | | Annual: | | | Task: | | |

15. Company of Employment:(If different from production operator)  
Independent Contractor ID: (if applicable)

16. On-site Emergency Medical Treatment:  
Not Applicable: | | | First-Aid: | | | CPR: | | | EMT: | | | Medical Professional: | | | None: | | |