

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, 2002

Free Dome #1 Mine
Free Dome Coal Incorporated
Beverly, Bell County, Kentucky
ID No. 15-15455

Accident Investigators

Lester Cox
Coal Mine Safety and Health Inspector

Billy Parrott
Coal Mine Safety and Health Inspector

Roger Dingess
Coal Mine Safety and Health Inspector

John Cook
Technical Support

Bill Gray
Technical Support

Originating Office
Mine Safety and Health Administration
District 7
3837 South Hwy. 25E
Barbourville, Ky. 40906
Irvin T. Hooker, District Manager

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PHOTOGRAPH OF ACCIDENT SCENE



OVERVIEW

On Wednesday June 19, 2002, Richard A. Jackson, shuttle car operator, age 35, received severe head injuries when the shuttle car he was operating struck a roof bolt installed in the mine roof. The canopy was dislodged by the impact and struck the victim in the head. Mr. Jackson remained in the hospital and rehabilitation center for a year after which he received hospice care. He remained in a semi-coma until he passed away on May 27, 2007. The accident occurred because an effective procedure or practice was not followed to assure that hazardous conditions such as loose coal from spillage during the mining would be recognized and corrected.

GENERAL INFORMATION

The Free Dome #1 mine was an underground coal mine owned and operated by Donnie Wagers and Jimmy Root. The mine was located at Beverly, in Bell County, Kentucky. Free Dome Coal Inc. began production on January 16, 2001. The mine total employment was 39 with 34 miners working underground. The mine worked three shifts. The mine reported production of 236,500 tons of coal during 2002. The principal officials at the mine were: Jimmy Root, President and Donnie Wagers, Vice-President.

A Mine Safety and Health Administration (MSHA) regular inspection was ongoing at the time of the accident. The inspection began on May 30, 2002 and was completed on June 27, 2002. The non-fatal days-lost (NFDL) incidence rate for this mine during 2001 was 5.77. The national rate for mines of this type was 7.12.

DESCRIPTION OF ACCIDENT

On Wednesday June 19, 2002, at approximately 5:00 a.m., section foreman Floyd Hibbard and the day shift production crew entered the underground mine and traveled approximately 5,800 feet to the 001 mechanized mining unit (MMU). After arriving on the retreat mining section, the crew moved the section power center back. Once the power center was moved, retreat mining began in the number one entry from the left pillar wall. The Joy remote control miner was being operated by Corey Asher and coal was being hauled from the miner to the section dumping point using two Joy 10SC center deck shuttle cars being operated by Joey Sayers and Richard Jackson (victim).

The average seam height on the 001 MMU was 55 inches. As the mining cycle progressed, loose coal began to accumulate on the mine floor in the number one entry due to spillage from the shuttle cars. Miner operator Cory Asher observed the coal spillage in the shuttle car travel way and intended to load one more car before backing the miner out to remove the loose coal. At approximately 7:20 a.m., Asher said that he heard the shuttle car being operated by Jackson approaching from the outby and heard the car canopy strike the mine roof. Asher looked back toward the shuttle car where it had stopped. After a second or two, the shuttle car began moving toward the pillar line. At the same time the shuttle car canopy fell off of the car, into the No. 1 right crosscut as the shuttle car continued to move toward the pillar line. Asher moved out of the path of the shuttle car and as it passed he reached into the operator's compartment and de-energized the car causing it to stop.

Asher observed Jackson sitting in the operator's deck of the shuttle car and was bleeding from the right side of his head. Asher went to the dumping point and notified Sayers, mine emergency technician, of the accident. Hibbard also heard Asher and responded. The miners administered first aid to Jackson. Jackson was placed on a stretcher and transported to the surface. Jackson was transported to the Arjay Kentucky Elementary school in Bell county Kentucky where he was transferred to a helicopter and flown to the University of Tennessee Hospital in Knoxville, Tennessee. Mr. Jackson sustained serious head injuries as a result of the accident.

INVESTIGATION

William Johnson, Coal Mine Inspector Supervisor, was notified of the accident at 8 a.m. on June 19, 2002. Lester Cox, Coal Mine Inspector, was assigned to investigate the accident. He was accompanied by Billy Parrott, Roger Dingess, Coal Mine Inspectors and Bill Gray and John Cook, Technical Support. Inspectors from the Kentucky Department of Mine and Minerals also were at the mine and assisted in the investigation. Persons participating in the investigation are listed in Appendix A.

DISCUSSION

The Free Dome #1 underground mine was approximately 5,800 feet deep. The working section, 001 MMU, was retreat mining. As the mining cycle progressed loose coal began to accumulate on the mine floor in the number one entry, due to spillage from the shuttle cars. The mining height was 55 inches. The loose coal accumulation was measured and was 5 inches to 6 inches in depth. When the shuttle car trammed onto the loose coal material the canopy was forced into the mine roof and struck an installed roof bolt. When the impact was made with the roof bolt, the canopy was broken off at its two support posts.

The remote control miner was being operated by Corey Asher, the coal was being hauled from the miner to the section dumping point using two Joy 10SC center deck shuttle cars being operated by Joey Sayers and Richard Jackson (victim). The shuttle car involved in the accident was a model number 10SC22-4BCXHE-4. The approval plate on the shuttle car was S.S. ET15881 with inspection date January 28, 1985. The shuttle cars had been modified by Phillips Machine Co. The canopy was determined to have been certified by a registered professional engineer in accordance with 30 CFR 75.1710(d).

Physical evidence obtained at the accident scene and from interviews with the workers on the 001 MMU indicated that the loose coal spillage that had accumulated on the mine floor had decreased the height where the shuttle car was traveling. The loose coal on the mine floor measured from 5 inches to 6 inches in depth. When the shuttle car trammed onto the loose coal material, the car canopy was forced into the mine roof and struck an installed roof bolt. When the impact was made with the roof bolt, the canopy was broken off at its two support posts. The canopy then fell and struck Jackson and crushed his head between the canopy and the side board of the operator's deck before it fell to the mine floor. The steel canopy weighed approximately 720 pounds. The floor to roof height averaged 55 inches in the number one entry at the accident scene.

ROOT CAUSE ANALYSIS

A root cause analysis was conducted. A root cause was identified that could have prevented the accident or mitigated the severity of the accident. Listed below are the root causes identified during the analysis and their corresponding corrective actions to prevent a recurrence of the accident.

1. *Root Cause:* An effective procedure or practice was not followed to assure that hazardous conditions such as loose coal from spillage during the mining would be recognized and corrected.

Corrective Action: The mine operator submitted a new clean up program that stated all accumulations of loose coal or any other material that affects the safe operation of equipment, shall be cleaned up or removed immediately.

CONCLUSION

On Wednesday June 19, 2002, Richard A. Jackson, shuttle car operator, age 35, received severe head injuries when the shuttle car he was operating struck a roof bolt installed in the mine roof. The canopy was dislodged by the impact and struck the victim in the head. The accident occurred because an effective procedure or practice was not followed to assure that hazardous conditions such as loose coal from spillage during the mining would be recognized and corrected.



Irvin T. Hooker
District Manager

4/14/2008
Date

ENFORCEMENT ACTIONS

1. A 103(k) order, number 7498573, was issued to Free Dome Coal Incorporated to ensure the safety of any person in the coal mine until an investigation and examination is made to determine that the mine is safe.
2. A 314 (b) safeguard, number 7530896 was issued to Free Dome Coal Incorporated. On June 19, 2002, an accumulation of loose coal material ranging in depths of five (5) to six (6) inches, due to spillage, was present in the No. 1 roadway entry on the 001 MMU pillar line. This accumulation reduced the height of the travel way to the point that the shuttle car canopies no longer had sufficient clearance and was coming in contact with the mine roof. This condition occurred immediately behind the continuous miner during retreat mining. This is a notice to provide safeguards requiring all haulage roadways to be kept free from bottom irregularities, debris, and wet or muddy conditions that affect the control of the equipment. Additionally, the operator's clean-up program shall be revised to stipulate that at anytime an accumulation of loose coal or any other material occurs which affect the safe operation of equipment it shall be cleaned-up or removed immediate.

APPENDIX A

List of Persons Participating in the Investigation

Free Dome Coal Incorporated

Jimmy Root	President
Donnie Wagers	Vice-President
Floyd Hibbard	Foreman
Joey Sayers	Shuttle Car Operator
Corey Asher	Continuous Miner Operator

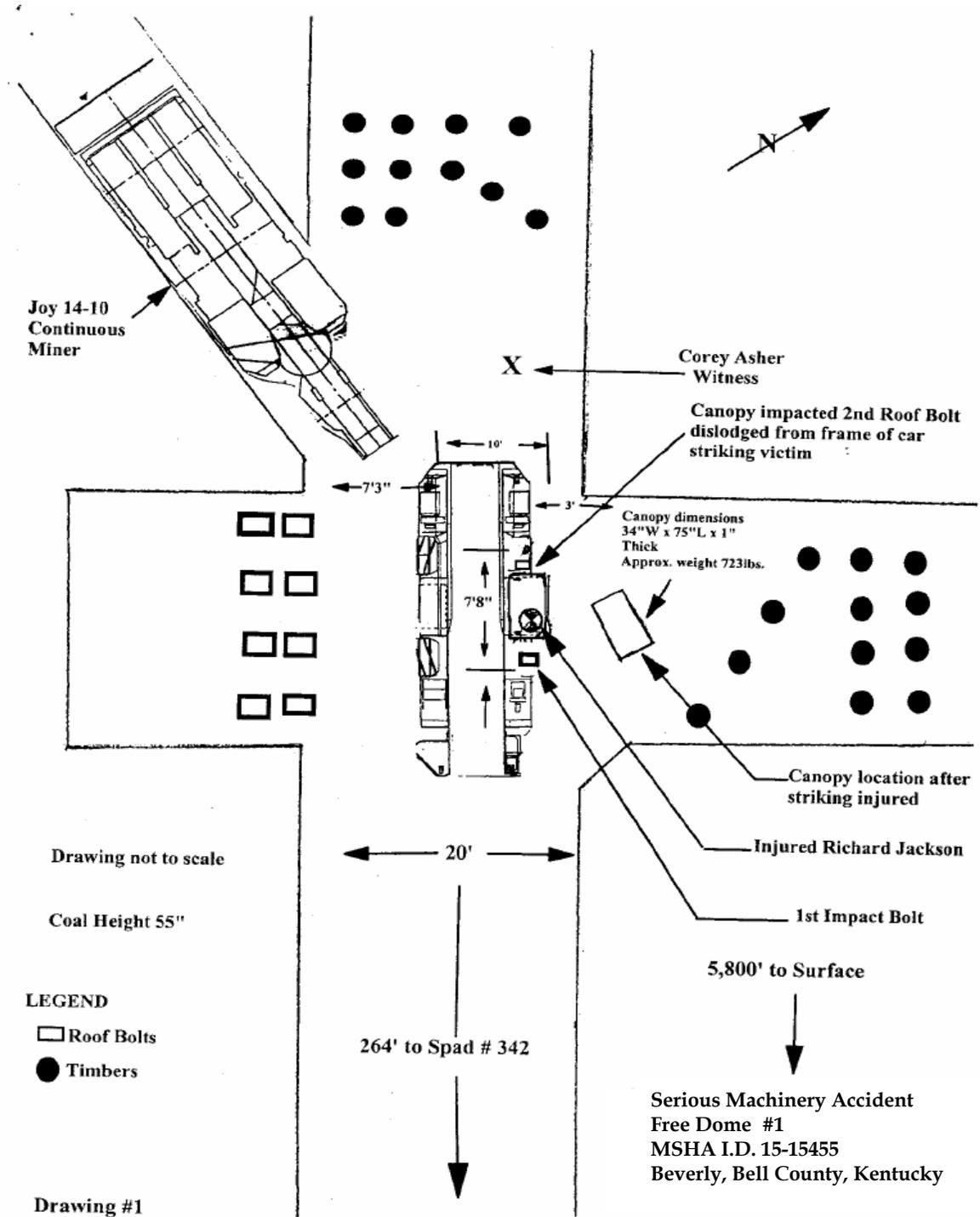
Kentucky Department of Mines and Minerals

Tracy Stumbo	Accident Investigator
Johnny Greene	Accident Investigator
Ronnie Hampton	Mine Inspector
Lonnie Lowe	Mine Inspector
Jim Owens	Analyst
Sherrill Fouts	Electrical Inspector

Mine Safety and Health Administration

Lester Cox	Coal Mine Inspector
Billy Parrott	Coal Mine Inspector
Roger Dingess	Coal Mine Inspector
Bill Gray	Technical Support
John Cook	Technical Support

APPENDIX B



Serious Machinery Accident
 Free Dome #1
 MSHA I.D. 15-15455
 Beverly, Bell County, Kentucky

APPENDIX C

Accident Investigation Data - Victim Information

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



Event Number: 4 2 2 4 2 5 3

Victim Information: 1

1. Name of Injured/ill Employee: <u>Richard A. Jackson</u>		2. Sex: <u>M</u>	3. Victim's Age: <u>35</u>	4. Last Four Digits of SSN:	5. Degree of Injury: <u>02 Permanent total or partial disability</u>											
6. Date(MMDDYY) and Time(24 Hr.) Of Death:				7. Date and Time Started: a. Date: <u>6/19/2002</u> b. Time: <u>6:00</u>												
8. Regular Job Title: <u>050 Shuttle Car (standard side)</u>			9. Work Activity when Injured: <u>069 Operate Shuttle Car</u>		10. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											
11. Experience a. This Work Activity:		Years	Weeks	Days	b. Regular Job Title:	Years	Weeks	Days	c. This Mine:	Years	Weeks	Days	d. Total Mining:	Years	Weeks	Days
		<u>3</u>	<u>0</u>	<u>0</u>	<u>3 0 0</u>	<u>3 0 0</u>			<u>1 8 0</u>				<u>4 0 0</u>			
12. What Directly Inflicted Injury or Illness? <u>086 Metal Canopy</u>					13. Nature of Injury or Illness: <u>140 Concussion-brain</u>											
14. Training Deficiencies: Hazard: <input type="checkbox"/> <u>New/Newly-Employed Experienced Miner:</u> <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																
15. Company of Employment: (If different from production operator) <u>Operator</u>						Independent Contractor ID: (if applicable)										
16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																
17. Part 50 Document Control Number: (form 7000-1)				18. Union Affiliation of Victim: <u>9999 None (No Union Affiliation)</u>												

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(MMDDYY) 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 <input type="checkbox"/> No <input type="checkbox"/>											
11. Experience a. This Work Activity:		Years	Weeks	Days	b. Regular Job Title:	Years	Weeks	Days	c. This Mine:	Years	Weeks	Days	d. Total Mining:	Years	Weeks	Days
12. What Directly Inflicted Injury or Illness?					13. Nature of Injury or Illness:											
14. Training Deficiencies: Hazard: <input type="checkbox"/> <u>New/Newly-Employed Experienced Miner:</u> <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																
15. Company of Employment: (If different from production operator)						Independent Contractor ID: (if applicable)										
16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																
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(MMDDYY) 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 <input type="checkbox"/> No <input type="checkbox"/>											
11. Experience a. This Work Activity:		Years	Weeks	Days	b. Regular Job Title:	Years	Weeks	Days	c. This Mine:	Years	Weeks	Days	d. Total Mining:	Years	Weeks	Days
12. What Directly Inflicted Injury or Illness?					13. Nature of Injury or Illness:											
14. Training Deficiencies: Hazard: <input type="checkbox"/> <u>New/Newly-Employed Experienced Miner:</u> <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>																
15. Company of Employment: (If different from production operator)						Independent Contractor ID: (if applicable)										
16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>																
17. Part 50 Document Control Number: (form 7000-1)				18. Union Affiliation of Victim:												