CAI-2009-02

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Surface Area of Underground Coal Mine

Fatal Handling Material Accident
February 17, 2009

Kacer Farms Trucking
Hopkinsville, Christian County, Kentucky

At

Prairie Eagle - Underground
Knight Hawk Coal, LLC
Cutler, Perry County, Illinois
I.D. No. 11-03147

Accident Investigators

Dean Cripps
Electrical Engineer

Larry Morris
Coal Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 8
2300 Willow Street
Vincennes, Indiana
Robert L. Phillips, District Manager

TABLE OF CONTENTS

Photograph of accident scene

OVERVIEW

At approximately 12:10 p.m. on February 17, 2009, Jarod Kacer, a 27 year old truck driver was fatally injured at the Knight Hawk Coal, LLC, Prairie Eagle Mine. The victim was an over-the-road truck driver and was delivering a load of lumber to the mine on a flat bed tractor-trailer. A mine employee was using a Bobcat Versahandler forklift to unload the lumber from the trailer. The forklift operator attempted to remove two bundles of 17 foot long 2x4s from the driver's side of the trailer. When the forklift operator raised the forks, two bundles of 2x4s fell off of the passenger's side of the trailer and struck the victim, causing fatal injuries.

The accident occurred because mine management's policies and controls were inadequate and failed to ensure that the truck load of lumber was unloaded in a manner that did not create a hazard to persons. Based on physical evidence, measurements, and interviews, it is apparent that the victim was located on the passenger's side of the trailer winding up a nylon strap that had been used to tie

down the load of lumber while it was being transported. The forklift operator placed the forks under two bundles of 2x4s on the driver's side of the trailer. The forks extended partially under the bundles of 2x4s on the passenger's side of the trailer. When the operator lifted and tilted the forks, the bundles of 2x4s on the passenger's side were tipped by the forks in the opposite direction and fell from the trailer and struck the victim.

GENERAL INFORMATION

The Prairie Eagle Mine, I.D. No. 11-03147, is operated by Knight Hawk Coal, LLC and is located in Perry County near Cutler, Illinois. The mine began production in the Herrin No. 6 coal seam with five entries into a highwall in August of 2006. The mine has 88 employees, 85 of whom work underground.

Coal is produced on two shifts daily with an average daily production of 10,000 tons. The mine has two continuous miner units which utilize battery ram cars to transport the coal from the working face to the belt tail. Conveyor belts transport the coal from the working section to the surface.

A regular safety and health inspection by the Mine Safety and Health Administration (MSHA) was ongoing at the time of the accident. The previous regular safety and health inspection of the mine was completed on December 23, 2008. The Non-Fatal Days Lost (NFDL) injury incidence rate for Prairie Eagle-Underground in 2008 was 4.55 compared to a National NFDL rate of 4.36.

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

Dale Winter	Manager, Underground Operations
Bill Sanders	Safety Director
Gary Chaney	General Mine Manager

Jarod Kacer was the owner of Kacer Farms Trucking located in Hopkinsville, Kentucky. He was contracted by J&C Lumber of Nortonville, Kentucky to deliver lumber to the Prairie Eagle mine.

DESCRIPTION OF ACCIDENT

On Tuesday, February 17, 2009, at approximately 11:45 a.m., Jarod Kacer, victim, arrived at the Prairie Eagle Mine. Kacer was an over-the-road truck driver and was delivering a load of lumber to the mine on a flat bed tractor trailer. The load consisted of several bundles of 2x4s and header boards to be used in the underground mine. The 2x4s were 17 feet long and were banded together in bundles eight boards wide by six boards high. Each bundle was banded to two

4x6 timbers to facilitate being handled by a forklift. The bundles of 2x4s were stacked at the rear of the trailer four bundles high by two bundles wide. The lumber was secured to the trailer by nylon straps that extended across the top of the load. The straps had a hook on one end that fastened to the driver's side of the trailer. A ratcheting device on the passenger side of the trailer tightened the straps and secured the load.

Kacer parked his truck on the mine entrance road adjacent to the supply yard. He exited the truck and walked to the mine's warehouse, a distance of approximately 540 feet. Brian Fortner, Warehouse Manager, was using the Bobcat Versahandler forklift to load material on a pickup truck near the warehouse. He saw Kacer walking across the parking lot. Fortner exited the forklift and he and Kacer walked into the warehouse office. Kacer informed Fortner that he had a load of lumber for the mine and Fortner signed the invoice for Kacer. They walked back outside of the warehouse.

Jimmy Loos and Mark Stutes, miner operator and electrician, respectively, for the adjacent highwall miner operation, approached Brian Fortner as he walked out of the warehouse. They asked to borrow the Versahandler forklift to haul some pallets to the highwall miner. Fortner informed them that it would be a little while before they could have it because he had a truck to unload. Fortner told Loos and Stutes that they could get the Versahandler sooner if they would unload Kacer's truck. Loos said that he would unload the truck. Kacer walked back to his truck and Loos drove the Versahandler from the warehouse to the truck.

Loos parked the forklift near the truck and walked to the rear of the trailer where he had a conversation with Kacer. Kacer asked Loos to throw the nylon straps over the top of the load after Kacer had loosened them. Loos threw the straps that were securing the bundles of 2x4s over to Kacer. Loos then returned to the forklift and drove up to the driver's side of the trailer. He placed the forks under the top two bundles of 2x4s on the driver's side. When he lifted the forks to pick up the two bundles of 2x4s, he saw some boards fall off of the passenger's side of the trailer. He looked under the trailer and saw the victim partially covered by the boards. He stopped the forklift and ran under the trailer to the passenger's side. He attempted to lift the boards off of the victim but could not. Loos ran from the truck to the warehouse to get help. While running to the warehouse, he called 911 on his cell phone. Loos told Fortner that lumber had fallen on the truck driver and he needed help. Fortner went to the lunch room next to the warehouse and informed Bill Sanders, Safety Director, and Gary Chaney, General Mine Manager, of the accident. Fortner then called 911. Loos ran back to the truck and Sanders, Chaney, and Stutes drove a pickup truck to the accident scene. Fortner, Marvin Ehlers, Contract Truck Driver, and Dwight

Baue, Surface Laborer, also traveled to the scene. As the others lifted up the bundle of 2x4s, Ehlers pulled the victim from under the lumber. Chaney and Ehlers drove a truck back to the warehouse and retrieved the first aid supplies, AED, and a back board. The Perry County Ambulance Service, Perry County Deputy Sherriff, and Perry County Coroner arrived a short time later. Kacer was pronounced dead at the scene by the Perry County Coroner.

INVESTIGATION OF THE ACCIDENT

The MSHA call center was notified of the accident at 12:17 p.m. CST on February 17, 2009, by Bill Sanders, Safety Director. The call center notified Adron Wilson, Supervisory Special Investigator, at the District 8 office in Vincennes, Indiana. MSHA personnel from the Benton, Illinois field office were immediately dispatched to the mine. A Section 103(k) order was issued to ensure the safety of persons at the mine until an investigation could be conducted.

The accident investigation was conducted in cooperation with the Illinois Department of Natural Resources, Office of Mines and Minerals. Photographs and measurements of the accident scene were taken and interviews with seven miners and management officials were conducted by the investigation team on the day of the accident. Operational checks of the equipment were performed and additional photographs were taken on February 18th. An additional interview was conducted with a miner on February 18th at the Knight Hawk Coal offices. The on-site portion of the investigation was completed on February 19, 2009. A list of those persons who participated in the investigation is shown in Appendices A and B of this report.

DISCUSSION

Location of the Accident

The accident occurred on the main entrance road into the mine near the supply yard. The entrance road, supply yard, parking lot, and mine office facility are shared by the Prairie Eagle underground mine, Prairie Eagle surface mine, and the preparation plant. The surface mine, highwall miner, and preparation plant are under MSHA I.D. No. 11-03143. The operator of the forklift at the time of the accident normally worked at the highwall miner. The lumber that was being unloaded from the trailer was for use in the underground mine.

Forklift

The forklift being used at the time of the accident was a Bobcat Versahandler, Model V723FL. The Versahandler was equipped with 48 inch long pallet forks. The forks on this machine can be tilted back toward the cab in addition to being raised vertically.

Accident Scene

The mine entrance road at the accident scene was a level graveled surface. The terrain of the accident site was determined not to have contributed to the accident.

The flat-bed trailer used to transport the load of lumber to the mine measured approximately 48 feet long by 8 feet wide. The bundles of 17 foot long 2x4s were stacked at the rear of the trailer. The rest of the trailer contained pallets of header boards. The bundles of 2x4s measured approximately 34 inches wide and were stacked four bundles high by two bundles wide. The distance from the top of the load to the ground was approximately nine feet.

The bundles of 2x4s had been secured to the trailer by three nylon straps. Each strap is attached to a ratcheting device which is located on the passenger's side of the trailer. These ratcheting devices tighten the straps when they are being used to secure a load. They also function to wind up and store the straps when the trailer is empty. The two straps nearest the back of the trailer had been wound up**.** The third strap was loose and lying on the ground near the victim.

The two bundles of 2x4s that were being removed from the driver's side of the trailer, when the accident occurred, were still on the forks. The forks were tilted back toward the operator's cab of the Versahandler with the tips in the air and the back of the forks resting on the bundle of 2x4s below them. The tips of the forks extended approximately 15 inches beyond the bundles of 2x4s. It is the consensus of the investigators that when the operator lifted and tilted the forks, the 2x4s on the passenger's side were tipped by the forks in the opposite direction and fell off of the trailer and struck the victim.

Training

Jarod Kacer, victim, had 5 years of over-the-road truck driving experience. He had delivered loads to this mine in the past but had not received training as required by 30 CFR 48.31 (hazard training). The victim had delivered materials to other area mines and had received hazard training at those mines. Therefore, the victim was familiar with the hazards associated with the surface areas of coal

mines. Also, the hazard training given to persons at this mine prior to the accident did not address where truck drivers should be located when their trucks were being unloaded. The lack of hazard training at this mine was therefore determined not to have contributed to the accident. A non-contributory citation was issued for the lack of hazard training.

Loos had operated the Bobcat Versahandler forklift on several occasions but had never unloaded a truck with it. Training records indicate that Loos had not received task training as required by 30 CFR 48.27(a)(3) on the operation of the Bobcat Versahandler forklift. Loos had received task training on a Caterpillar 980 forklift that he regularly operated and he had unloaded trucks with it. Task training would be required on both forklifts since they have different operating procedures. The process of unloading lumber from the truck however is essentially the same whether using the Bobcat Versahandler or the Caterpillar 980. The accident was not caused by the lack of knowledge of the operating controls of the Bobcat Versahandler. Therefore, the lack of task training on the Bobcat Versahandler forklift was determined not to have contributed to the accident. A non-contributory citation was issued for the lack of task training on the Bobcat Versahandler forklift.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the underlying cause of the accident that was correctable through reasonable management controls. Listed below is the root cause identified during the analysis and the corresponding corrective action implemented to prevent a recurrence of the accident:

Root Cause: Mine management's policies and work procedures were inadequate to ensure that the truck was unloaded in a manner that did not create hazards to persons. The truck driver was located on the passenger's side of the trailer while a mine employee was using a forklift to unload the lumber on the opposite side of the trailer.

Corrective Action: Mine management has established policies and controls to ensure that trucks are unloaded in a manner that does not create hazards to persons by revising the hazard training requirements for the mine operation. The hazard training now is more specific as to what truck drivers are required to do while being loaded or unloaded. The hazard training includes language that informs drivers to stay inside the truck or mine office while being loaded or unloaded. If the drivers are outside the trucks they must stay in clear view of the loader operator. They are also directed to never go on the back side or blind side of mobile equipment while being operated for any reason.

CONCLUSION

The accident occurred because mine management's policies and controls were inadequate and failed to ensure that the truck load of lumber was unloaded in a manner that did not create a hazard to persons. Based on physical evidence, measurements, and interviews, it is apparent that the victim was located on the passenger's side of the trailer winding up a nylon strap. The forklift operator placed the forks under two bundles of 2x4s on the driver's side of the trailer. The forks extended partially under the bundles of 2x4s on the passenger's side of the trailer. When the operator lifted and tilted the forks, the 2x4s on the passenger's side were tipped by the forks in the opposite direction and fell off of the trailer and struck the victim.

Approved By:

Robert F. Phillips
Robert L. Phillips
District Manager

07/20/2009
Date

ENFORCEMENT ACTION

1. A 103(k) Order, No. 6683238, was issued to ensure the safety of the miners until the investigation could be completed.

Appendix A

Persons Participating in the Investigation

Mine Safety and Health Administration

Dean Cripps	Electrical Engineer, Accident Investigator
Larry Morris	CMS&H Inspector
Charles Conaughty	CMS&H Inspector, Special Investigator
Adron Wilson	Supervisory Special Investigator

State of Illinois Department of Natural Resources, Office of Mines and Minerals

Don McBride	Inspector at Large
Pat Cambell	Inspector
Doug Eggers	Inspector
Mike Woods	Manager

Knight Hawk Coal, LLC

Jim Smith	Vice President, Administration
Josh Carter	Vice President, Operations
Dale Winter	Manager, Underground Operations
Bill Sanders	Safety Director
Brock Patterson	Safety Director, Royal Falcon Mine
Tom Hasenstab	Engineer

Appendix B

Persons Interviewed

Bill Sanders	Safety Director
Brian Fortner	Warehouse Manager
Mark Stutes	Highwall Miner Electrician
Gary Chaney	General Mine Manager
Marvin Ehlers	Contract Truck Driver
Dwight Baue	Surface Laborer
Jimmy Stearns	Surface Mine Supervisor
Jimmy Loos	Highwall Miner Operator

Appendix C

Photograph showing forks extending approximately 15 inches beyond the bundle of 2x4s that was being lifted at the time of the accident.

Appendix D

Victim Information

Accident Investigation Data - Victim Information

Event Number: 6 1 5 7 5 3 8

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

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Last Four Digits of SSN:	5. Degree of Injury:
Jarod Kacer	M	27		01 Fatal

6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:	7. Date and Time Started:
a. Date: 02/17/2009 b.Time: 12:25	a. Date: 02/17/2009 b.Time: 11:50

8. Regular Job Title:	9. Work Activity when Injured:	10. Was this work activity part of regular job?
176 Truck Driver	028 Handling Supplies/Material; Load/Unload	Yes X No

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

12. What Directly Inflicted Injury or Illness	13. Nature of Injury or Illness:
116 Wood Items	170 Crushing

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

15. Company of Employment:(If different from production operator)
Kacer Farms
Independent Contractor ID: (if applicable) X367

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

17. Part 50 Document Control Number: (form 7000-1)

18. Union Affiliation of Victim: 9999 None (No Union Affiliation)