

MAI-2014-27

**UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
Metal and Nonmetal Mine Safety and Health**

REPORT OF INVESTIGATION

**Surface Nonmetal Mine
(Gypsum)**

**Fatal Fall of Person Accident
June 14, 2014**

**Chalk Hills Quarry
Diamond K Gypsum Inc.
Emery, Emery County, Utah
Mine ID No. 42-02077**

Investigator

**E. Dwayne Humphries
Mine Safety and Health Inspector**

**Originating Office
Mine Safety and Health Administration
Rocky Mountain District
PO Box 25367 DFC
Denver, CO 80225-0367
Richard Laufenberg, District Manager**



OVERVIEW

On June 14, 2014, Kevin Lee Ames, Laborer, age 35, was injured at Chalk Hills Quarry, a gypsum facility. He was involved in the shipping process of the plant's operation under the supervision of John Smith, Shift Supervisor. The shipping process involved operating a bagger unit, palletizer, propane shrink wrapper, and forklift. Just prior to the accident, Smith left the immediate area where Ames was working to complete his regular check on the mills. When Smith returned, he found that the victim had sustained serious burns to his left arm and chest. Ames was transported to a hospital for treatment. The victim died on July 28, 2014 from mucormycosis (fungal infection) due to the burns.

On September 30, 2014, the Mine Safety and Health Administration (MSHA) referred the accident to the Chargeability Review Committee. On April 9, 2015, the Chargeability Review Committee determined that this death should be charged to the mining industry. The death certificate indicated that the manner of death was accidental and that the cause of death was mucormycosis due to burns. An autopsy was not performed.

GENERAL INFORMATION

Chalk Hills Quarry, a surface gypsum mine owned and operated by Diamond K Gypsum Inc., is located near Emery, Emery County, Utah. The principal operating official is Karen Palmer, President. Kris Allred, General Manager, is the person in charge of health and safety at the mine. The mine operates one 8-hour shift per day, five days per week. Total employment is 23 persons.

Gypsum is mined in an open pit quarry. Bulk ore is transported via bulk trucks to a sizing mill. Bulk gypsum is loaded in 50-pound bags and palletized using a fully automated bagger and palletizer. Loaded pallets are discharged to a runway where they are wrapped with plastic. A propane torch is used to shrink-wrap the plastic around the pallets in preparation for shipment.

The Mine Safety and Health Administration (MSHA) completed the last regular inspection at this operation on April 16, 2014.

DESCRIPTION OF ACCIDENT

On June 14, 2014, Kevin Lee Ames (victim) arrived at the mine at about 6:00 a.m. John Smith, Shift Supervisor, and Ames conducted workplace examinations until approximately 6:30 a.m., when they started working at the palletizer and bagger unit. They were shrink-wrapping the shipping pallets, which were loaded with stacked 50-pound bulk product bags, with heat from a propane torch.

At 1:00 p.m., Ames and Smith took a break for lunch. At 2:00 p.m., they resumed work on the palletizer. Smith left the area to make his normal checks on the mills. When Smith returned approximately 15 minutes later, he found Ames struggling to stand. Smith observed that Ames had sustained significant burns to his left arm and left side of his torso and was in a state of confusion and shock. The propane torch that Ames had been using was still on. Smith shut off the propane torch, dialed 911, and attended to the victim. At 2:27 p.m., Emergency Medical Services arrived, began treatment, and transported Ames to a local hospital.

Ames was transferred to a burn unit for advanced treatment. The victim returned home on July 22, 2015 where he died on July 28, 2014. The cause of death was attributed to mucormycosis as a result of burns.

INVESTIGATION OF ACCIDENT

MSHA was notified of the accident at 2:45 p.m., on June 14, 2014, by a telephone call from Corbin Curtis, Safety Manager, to MSHA's National Call Center. Brad Breland, Supervisory Mine Safety and Health Inspector, was notified and an investigation started June 16, 2014.

An order was issued under the provisions of Section 103(j) of the Mine Act to ensure the safety of the miners. This order was subsequently modified to Section 103(k) of the Mine Act after the arrival of an Authorized Representative at the mine.

MSHA's accident investigator traveled to the mine, conducted a physical inspection of the accident scene, interviewed employees, and reviewed documents and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and employees.

DISCUSSION

Location

The accident occurred in the mill at the shrink-wrapping runway. To prepare bulk product bags for shipping, pallets loaded with stacked 50-pound bulk product are discharged from the palletizer to the shrink-wrapping runway. The loaded pallets are covered in plastic and heated with a propane torch.

The floor of the area is concrete and was observed to be dry and flat. No tripping hazards were found during the investigation. No witnesses observed the accident.

Environmental Factors

The accident occurred inside the mill. The bay doors were open and the ventilation fans were turned on. The area was well-ventilated at the time of the accident. The temperature in Emery, Utah, on the day of the accident was in the low 70s. Environmental factors were not considered to be a factor in the accident

Equipment Involved in the Accident

The propane torch involved in the accident is a Red Dragon hand-held propane torch. The torch must be manually ignited with a magnesium starter and then adjusted to the proper flow with a control valve. No physical defects of the torch, hoses, valves, or tank were found during the investigation.

TRAINING AND EXPERIENCE

Kevin Lee Ames had 7 years of mining experience as a laborer, but had worked only 9 weeks and 2 days at this operation. The investigator reviewed the mine operator's Part 46 training records for Ames. The records documented that he received all required training, including comprehensive new miner training and task training as required.

CONCLUSION

On September 30, 2014, the Mine Safety and Health Administration (MSHA) referred the accident to the Chargeability Review Committee. On April 9, 2015, the Chargeability Review Committee determined that this death should be charged to the mining industry. The death certificate indicated that the manner of death was accidental and that the cause of death was mucormycosis due to burns. An autopsy was not performed.

ENFORCEMENT ACTIONS

Issued to Diamond K Gypsum Inc.

Order No. 8756500 - Issued on June 14, 2014, under the provisions of Section 103(j) of the Mine Act. An Authorized Representative modified this order to Section 103(k) of the Mine Act upon arrival at the mine site.

An accident occurred at this operation on 6/14/2014 at approximate 12:15 Mountain Standard Time. This order is being issued, under section 103-J of the Federal Mine Safety and Health Act of 1977, to prevent the destruction of any evidence which would assist in the investigating of the cause or causes of the accident. It prohibits all activity at(Mill dry sacking prep and discharge tables including shrink wrapping table staging bag preparation) until MSHA has determined that it is safe to resume normal mining operations in this

area. This order was issued orally to the mine operator at 15:03 MST and has now been reduced to writing.

The initial 103-J is now being modified to reflect that MSHA is now proceeding under the authority of section 103-K of the Federal Mine Safety and Health Act of 1977. The provisions of the 103-K section and order is intended to protect safety of all persons on-site, persons in investigation of the accident. The operator shall obtain approval from an Authorized Representative of the Secretary for all actions to recover/or restore operations in the operations in the affected area. Additionally, The mine operator is reminded of its existing obligation to prevent the destruction of evidence that would aid in the investigation as to the cause or causes of the accident.

The order was terminated on June 16, 2014, after conditions which contributed to the accident no longer existed. The order was modified to reflect the corrected time of the accident.

Approved By: Richard Laufenberg Date: 07-27-2015

Richard Laufenberg,
District Manager

APPENDIX A

Persons Participating in the Investigation

Diamond K Gypsum Inc

Karen Palmer	President
John H. Reeves, Jr	Co-Owner
Kris Allred	General Manager
Brandon Barney	Manager
Corbin Curtis	Safety Manager
John Smith	Shift Supervisor
Jason Hardin	Legal Counsel

Mine Safety and Health Administration

E. Dwayne Humphries	Mine Safety and Health Inspector
Michael S. Okuniewicz	Supervisory Mine Inspector

APPENDIX B

Accident Investigation Data - Victim Information

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



Event Number:

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Victim Information: 1

1. Name of Injured/Ill Employee: <i>Kevin L. Ames</i>		2. Sex <i>M</i>	3. Victim's Age <i>35</i>	4. Degree of Injury: <i>01 Fatal</i>											
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 07/28/2014 b. Time: 10:07</i>				6. Date and Time Started: <i>a. Date: 06/14/2014 b. Time: 6:00</i>											
7. Regular Job Title: <i>142 Bagger/Palletizer operator</i>		8. Work Activity when Injured: <i>098 Heating shrink wrap with a torch</i>			9. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										
10. Experience	Years	Weeks	Days	b. Regular	Years	Weeks	Days	c. This	Years	Weeks	Days	d. Total	Years	Weeks	Days
a. This				Job Title:				Mine:				Mining:			
Work Activity:	<i>0</i>	<i>9</i>	<i>2</i>		<i>0</i>	<i>9</i>	<i>2</i>		<i>0</i>	<i>9</i>	<i>2</i>		<i>7</i>	<i>0</i>	<i>0</i>
11. What Directly Inflicted Injury or Illness? <i>045 Propane Torch</i>				12. Nature of Injury or Illness: <i>120 Second and Third Degree Burns</i>											
13. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/>															
14. Company of Employment: (If different from production operator) <i>Operator</i>				Independent Contractor ID: (if applicable)											
15. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input checked="" type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/>															
16. Part 50 Document Control Number: (form 7000-1)				17. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i>											