

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

REPORT OF INVESTIGATION

**Surface Nonmetal Mine
(Lime)**

**Fatal Fall of Person Accident
December 14, 2007**

**Santa Clara Transfer, Incorporated
Contractor I.D. No. U584**

at

**Natividad Plant
Chemical Lime Company of Arizona
Salinas, Monterey County, California
Mine I.D. No. 04-00156**

Investigators

**Kevin G. Hirsch
Supervisory Mine Safety and Health Inspector**

**Isabel R. Williams
Mine Safety and Health Specialist**

**Originating Office
Mine Safety and Health Administration
Western District
2060 Peabody Road, Suite 610
Vacaville, California 95687
Arthur L. Ellis, District Manager**

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OVERVIEW

Salvador Torres, contractor truck driver, age 43, was injured on December 14, 2007, when he fell from the top of a bulk trailer to the ground below. Torres was accessing a truck rack on top of his trailer to unlatch the lid so the trailer could be loaded with lime. The victim was hospitalized and died on January 22, 2008.

The accident occurred because management did not have policies and procedures in place to ensure that persons could safely access the top of bulk trailers. The truck rack did not remain in position when used and was not maintained as recommended by the manufacturer.

GENERAL INFORMATION

Natividad Plant, open pit mine and mill, was owned and operated by Chemical Lime Company of Arizona, and located in Salinas, Monterey County, California. The principal operating official was Chris Randall, plant manager. The mine normally operated three 8-hour shifts per day, seven days per week. Total employment was 81 persons.

Limestone was drilled and blasted from multiple benches. Front-end loaders loaded the material into haul trucks. The material was transported to a primary crusher and then processed. Finished products were used in the construction and other industries.

Natividad Plant contracted with several haulers, including Santa Clara Transfer, Incorporated, to transport lime from the mine to customers. Salvador Torres was an independent truck owner working for Santa Clara Transfer, Incorporated. Torres used his truck and Santa Clara Transfer, Incorporated's bulk trailers to transport material.

The last regular inspection at this operation was completed on February 1, 2008.

DESCRIPTION OF THE ACCIDENT

On December 14, 2007, the day of the accident, Salvador Torres (victim) arrived at the mine at approximately 5:00 a.m. He drove to the truck rack to pick up a load of lime. About 5:10 a.m., Robert Delacruz, quarry foreman, found Torres lying on the ground near the rear trailer's right tire. The front trailer lid was found in the open position. Apparently Torres was accessing the top of the rear trailer to open the lid when he fell.

Delacruz called for emergency medical assistance. Delacruz and Charles Kunkle, warehouseman, provided first aid until emergency medical personnel arrived. Torres was transported to a local hospital where he died on January 22, 2008. The cause of the death was attributed to blunt force trauma.

INVESTIGATION OF THE ACCIDENT

The Mine Safety and Health Administration (MSHA) learned of the accident on May 20, 2008. Jerry Hulsey, mine safety and health inspector, was told of the accident and the victim's death while conducting a regular inspection at a nearby

mine. He telephoned Bruce Allard, supervisory mine safety and health inspector, and an investigation was started that day.

MSHA's accident investigation team traveled to the mine, made 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, employees, and contractor management.

DISCUSSION

Location of the Accident

The accident occurred at the truck rack used to access the top of bulk trailers. The rack was located adjacent to the property line near the main plant gate.

Weather

The weather summary at the time of the accident showed the temperature was 34 degrees Fahrenheit and the wind speed about 8 miles per hour.

Truck

The truck involved in the accident was a 2007 Peterbuilt tractor conventional 379 model with two Fruehauf dry bulk transport trailers, manufactured in 1978, by Liquid and Bulk Tank. The top of each trailer was 10 feet 6 inches from the ground. The tops were flat, had rounded edges, and were 4 feet 11 inches wide and 8 feet 2 inches long. The lids were located in the center of the flat area. The total capacity of each trailer was 480 cubic feet.

Truck Rack

The truck rack was a model RTC 35A, fabricated by Graff Access Equipment in 2003. The access walkway was 66 inches long and 38 inches wide. The hand rail basket measured 69 inches wide 46 inches long and 28 inches high.

The access walkway and its attached handrail basket could be moved to a fixed position. The access walkway pivoted at the connection points to the main structure. This allowed the access walkway to move as needed to contact bulk trailers of various heights. As the access walkway pivoted, the handrail basket also pivoted and remained perpendicular to the ground. When properly tensioned as recommended by the manufacturer, the handrail basket maintained a constant distance from the trailer top relative to the angle of the access walkway.

The access walkway was spring tensioned which aided the truck drivers to bring it and the handrail basket to the upright fixed position when not in use. However, the access walkway involved in the accident was not properly tensioned. The tension was too tight causing the access walkway to rise when the victim stepped off it and onto the truck. The spring tension was not checked on a regular basis as recommended by the manufacturer.

Training and Experience

Salvador Torres had 10 years experience as an over the road truck driver. He was an independent contractor leasing a trailer from Santa Clara Transfer from August 1, 2004, to the date of the accident.

Site specific hazard training for truck drivers was provided by signage posted at the stair entrance to the truck racks at the mine.

ROOT CAUSE ANALYSIS

A root cause analysis was performed and the following root cause was identified:

Root Cause: Management did not establish policies, procedures, or controls to ensure that truck drivers could safely access the lids on their bulk trailers. The truck rack used by the drivers would not remain in position to provide a safe means of access to the trailer top and lid. The truck rack was not maintained as recommended by the manufacturer.

Corrective Action: Management should establish policies, procedures, and controls to ensure that truck drivers can safely access the lids on top of their trucks. A safe means of access shall be provided and maintained as recommended by the manufacturer.

CONCLUSION

The accident occurred because management did not have policies and procedures in place to ensure that persons could safely access the top of bulk trailers. The truck rack did not remain in position when used and was not maintained as recommended by the manufacturer.

ENFORCEMENT ACTIONS

Chemical Lime Company of Arizona

Citation No 6440517 was issued on August 26, 2008, under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 56.11001:

On January 22, 2008 a truck driver died as a result of complications to injuries he received from an accident that occurred on December 14, 2007. He was accessing the top of a bulk trailer to open a lid when he fell to the ground. The spring tensioning system for the walkway and surrounding handrails was not maintained to remain in position to provide a safe means of access to the lid on top of the trailer.

This citation was terminated on August 26, 2008. The spring tensioning system was adjusted to provide for proper operation of the access walkway and the operator is performing inspections to ensure the access walkway is being properly maintained.

Approved By:

Arthur L. Ellis
District Manager

Date

APPENDICES

- A. Persons Participating in the Investigation**
- B. Photo of Truck Rack**
- C. Photo of Access Walkway and Handrail Basket**
- D. Victim Information**

Appendix A

Persons Participating in the Investigation

Chemical Lime Company of Arizona

Chris Randallplant manager
Andrew Heinemann.....mine manager
Ken McDarissafety manager

Santa Clara Transfer Service, Incorporated

Steve Johnson..... owner

Mine Safety and Health Administration

Kevin G. Hirsch.....supervisory mine safety and health inspector
Isabel R. Williams.....mine safety and health specialist

Appendix B



Truck rack

Appendix C



Truck rack showing access walkway and handrail basket

Appendix D

| Accident Investigation Data - Victim Information | | | | | | | | | | U.S. Department of Labor | | |
|--|--|--|--|--|-----------------------|---|-----------------------------|--|---|---------------------------------------|--|---|
| Event Number: 1 1 4 2 2 1 2 | | | | | | | | | | Mine Safety and Health Administration | |  |
| Victim Information: 1 | | | | | | | | | | | | |
| 1. Name of Injured/Ill Employee: Salvador Torres | | | 2. Sex M | | 3. Victim's Age 43 | | 4. Last Four Digits of SSN: | | 5. Degree of Injury: 01 Fetal | | | |
| 6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: a. Date: 01/22/2008 b. Time: 6:15 | | | | | | 7. Date and Time Started: a. Date: 12/14/2007 b. Time: 5:00 | | | | | | |
| 8. Regular Job Title: 176 Over the Road Truck Driver | | | | 9. Work Activity when Injured: 023 Accessing top of Bulk tank trailer | | | | 10. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | |
| 11. Experience a. This Work Activity: 10 Years 1 Weeks 0 Days | | | b. Regular Job Title: 10 Years 1 Weeks 0 Days | | | c. This Mine: 10 Years 1 Weeks 0 Days | | | d. Total Mining: 10 Years 1 Weeks 0 Days | | | |
| 12. What Directly Inflicted Injury or Illness? 016 Truck Rack Access | | | | | | 13. Nature of Injury or Illness: 220 Fractured Spine | | | | | | |
| 14. Training Deficiencies: Hazard: _____ New/Newly-Employed Experienced Miner: _____ Annual: _____ Task: _____ | | | | | | | | | | | | |
| 15. Company of Employment: (If different from production operator) Santa Clara Transfer Service INC. Independent Contractor ID: (if applicable) 00U584 | | | | | | | | | | | | |
| 16. On-site Emergency Medical Treatment: Not Applicable: _____ First-Aid: <input checked="" type="checkbox"/> CPR: _____ EMT: _____ Medical Professional: _____ None: _____ | | | | | | | | | | | | |
| 17. Part 50 Document Control Number: (form 7000-1) | | | | | | 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 <input type="checkbox"/> No <input type="checkbox"/> | | | | |
| 11. Experience: a. This Work Activity: | | | b. Regular Job Title: | | | c. This Mine: | | | d. Total Mining: | | | |
| 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 <input type="checkbox"/> No <input type="checkbox"/> | | | | |
| 11. Experience: a. This Work Activity: | | | b. Regular Job Title: | | | c. This Mine: | | | d. Total Mining: | | | |
| 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: | | | | | | |