MAI-2012-03

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

REPORT OF INVESTIGATION

Surface Nonmetal Mine
(Limestone)

Fatal Fall of Person Accident
February 22, 2012

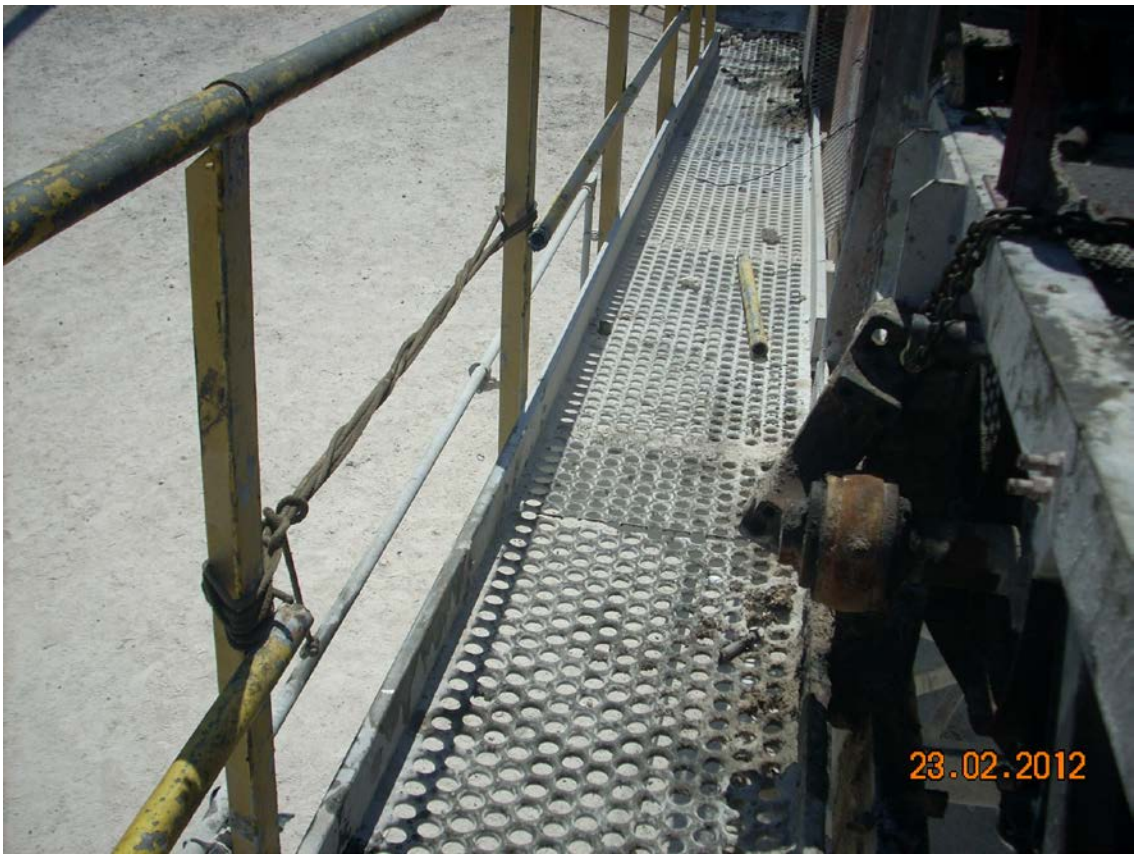
White Rock Quarries
White Rock Quarries
Hialeah, Dade County, Florida
Mine ID No. 08-01058

Investigators

Jeffrey L. Phillips
Supervisory Mine Safety and Health Inspector

Larry D. Melton
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Southeastern District
135 Gemini Circle, Suite 212, Birmingham, Alabama 35209
Michael A. Davis, District Manager


23.02.2012

OVERVIEW

Humberto Guerra Sr., Maintenance Mechanic, age 46, suffered injuries on February 22, 2012, from a fall of 16 feet from an elevated walkway of a conveyor to the ground below. Guerra and a coworker, positioned on the other side of the belt, were bolting a snubber pulley in place. Guerra was hospitalized and died on February 26, 2012, as a result of injuries sustained from the fall.

The accident occurred due to management's failure to ensure persons wear fall protection where there is a danger of falling. The victim was not wearing fall protection.

GENERAL INFORMATION

White Rock Quarries, a surface limestone wet mining operation, owned and operated by White Rock Quarries is located in Hialeah, Dade County, Florida. The principal operating official is Raymond Maddy, Vice-President of Operations. The mine operates two 10 hour shifts, 4 days per week. Total employment is 122 persons.

A wet process extraction is used to mine the limestone. Approximately 10 to 15 feet of overburden is removed using excavators and haul trucks. A limestone bench is exposed that serves as the pit floor. The bench is about 8 to 10 feet above the water level and approximately 60 feet deep. The material is drilled and blasted. A dragline removes the material from the water and dumps it in windrows. When dry, the material is crushed and screened. Finished products are sold as road base and asphalt material.

The Mine Safety and Health Administration (MSHA) completed the last regular inspection at this operation on January 6, 2012.

DESCRIPTION OF ACCIDENT

On the day of the accident, Humberto Guerra Sr., victim, reported for work at 2:45 p.m., his normal starting time. At 3:00 p.m., Jose Hernandez, Maintenance Supervisor, conducted a daily safety meeting at the maintenance shop. Guerra and Claudio Llerena, Maintenance Mechanic, received their work assignment at 3:45 p.m..

About 4:30 p.m., Llerena received a work order from Juan Lermo, Maintenance Supervisor, to replace a snubber pulley on the M-22 conveyor. Llerena and Guerra gathered tools and equipment and traveled to M-22 conveyor.

At approximately 5:20 p.m., the crew walked up the catwalk from the west side of the conveyor to prepare a snubber pulley for removal. Jose Largos, Screen Man, positioned a boom truck to remove the old pulley and lift the new one in place. At 6:20 p.m., the crew attempted to lift the

new pulley over the top of the handrail of the walkway on the east side of the conveyor, however, the pulley would not go over the rail with the angle involved.

Llerena and Guerra decided to remove a 58½-inch section of the mid-rail along the walkway on the non-drive side, facing east, where Guerra was working. Guerra used a torch to cut the two ends of the rail and remove it. The crew guided the pulley through the opening between the toe board and top rail, placing it in position. They walked up to the crossover and down the other side of the walkway to Llerena's maintenance truck to get a rope to replace the missing mid-rail.

Largos drove the boom truck from the area. Llerena and Guerra returned to the work area to complete the installation of the pulley. Arriving at the work area, Llerena, tied a rope to the railing to temporarily replace the missing section of mid-rail.

Llerena walked further up the conveyor to the crossover to access the west side walkway. Guerra installed new bolts that held the bearing saddle to the conveyor frame while Llerena tried to loosen set screws for alignment of the bearing. Llerena, working in a kneeling position, attempted to slide the bearing in place when he heard a loud thump.

Llerena initially thought a tool fell from the catwalk. He stood up but could not see Guerra at his work station. Llerena began searching for Guerra and saw him lying face down on the ground below. He ran to Guerra and immediately called Lermo.

Lermo reported the accident to Hernandez. He drove to the site, checked on Guerra, and instructed Carlos Gonzalez, Hammer Operator, to call Mathew Thompson, Foreman, for assistance. Hernandez called for Emergency Medical Services (EMS). Thompson arrived and coordinated efforts to assist Guerra.

EMS arrived at 8:10 p.m. and prepared Guerra for transportation to the onsite helicopter landing zone. A helivac unit arrived at 8:23 p.m., stabilized Guerra, and departed at 8:35 p.m. to Ryder Trauma Center, Jackson Memorial Hospital. Guerra was hospitalized and died on February 26, 2012, as a result of his injuries. The cause of death was blunt force trauma.

INVESTIGATION OF ACCIDENT

MSHA was notified of the accident at 8:28 p.m. on February 22, 2012, by a telephone call from Nicholas Rudanovich, Production Engineer, to the National Call Center. The Call Center notified Doniece Schlick, Safety Specialist, and an investigation was started the same day. An order was issued under 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 when the first Authorized Representative arrived at the mine.

MSHA's accident investigation team 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,

mine employees, Miami-Dade Police Department, Miami-Dade Fire Rescue, and Jackson Memorial Hospital.

DISCUSSION

Location

The accident occurred at the M-22 conveyor, located within the mining area referred to as Phase I of the crushing plant. The conveyor was moved from its normal operating position, east to west, over to a north and south direction to make the repairs. The area is well illuminated from overhead light fixtures mounted on the conveyor catwalks.

Weather

The weather conditions at the time of the accident indicate a calm evening with a temperature of 71 degrees Fahrenheit. Weather was not considered to be a factor in the accident.

Conveyor

The M-22 conveyor involved in the accident was fabricated on site. The conveyor is a 42-inch wide belt incline stacker, 144 feet long and has two 24-inch wide walkways. A crossover is located toward the top of the conveyor.

Handrails

The walkways on the conveyor are provided with 42-inch high handrails with a mid-rail 20½ inches above the walking surface. The rails measure 1½-inch diameter round bar. Posts, spaced approximately 58½ inches apart, are 2-inch wide angle welded to the steel framing supporting the steel grating walkway. A 4-inch toe board is mounted to the walkway.

Prior to the accident, the crew replaced the missing handrail with a 3⅜-inch diameter fiber rope. The rope was placed 22 inches high and wrapped twice between the two upright bars supporting the handrails. The last wrap was twisted around the outside of the other three sections of rope that spanned the gap to maintain tension and keep the sections together. The knot was secured with a round turn and several hitches. Investigators could not determine if replacing the mid-rail with a rope contributed to the accident.

Personal Protective Equipment

Written policies or procedures were not established by management regarding the use of fall protection. However, fall protection was available to persons at the mine site. Investigators did not find any fall protection at the location of the accident.

Training and Experience

Humberto Guerra Sr., victim, had 7 years and 2 weeks of mining experience, all at this operation.

The investigators conducted an in-depth review of the mine operator's training records. Guerra’s training records were examined and found to be in compliance with MSHA training requirements.

ROOT CAUSE ANALYSIS

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

Root Cause: Management did not monitor persons to ensure established safe procedures were followed. The victim was not wearing fall protection while working on conveyor walkways where there is a danger of falling.

Corrective Action: Management established procedures requiring persons be monitored to ensure fall protection is worn where a potential falling hazard exists. All persons were trained in these new procedures.

CONCLUSION

The accident occurred due to management's failure to ensure persons wear fall protection when working on conveyor walkways where there is a danger of falling to the ground below. The victim was not wearing fall protection.

ENFORCEMENT ACTIONS

Issued to White Rock Quarries

Order No. 8642447 -- Issued on February 23, 2012, under the provisions of Section 103(j) of the Mine Act:

> *An accident occurred at this operation on February 22, 2012, at approximately 8:29 p.m. This order is being issued, under section 103(j) of the Federal Mine Safety and Health Act of 1977 to assure the safety of all persons at this operation. This order is also being issued to prevent the destruction of any evidence which would assist in investigating the cause or causes of the accident. It prohibits all activity at White Rock Quarries, except to the extent necessary to rescue an individual or prevent or eliminate an imminent danger until MSHA has determined that it is safe to resume normal mining operations in the area. This order applies to all persons engaged in the rescue and recovery operation and any other person's onsite. This order was initially issued orally to Tony Diaz – Safety Director at approximately 8:45 p.m. and has now been reduced to writing.*

The order was terminated on February 23, 2012. Conditions that contributed to the accident no longer existed.

Citation No. 6091469 -- Issued on May 4, 2012, under the provisions of Section 104(a) of the Mine Act for a violation of 56.15005:

An accident occurred at this operation on February 22, 2012. A mechanic was injured when he fell 16 feet from an elevated walkway of a conveyor to the ground below. He was hospitalized and died on February 26, 2012, as a result of his injuries. The victim and a coworker were replacing a snubber pulley on the conveyor. The mid-rail of an outer railing had been removed to position the pulley in place, creating an opening approximately 58 x 38 inches. A rope was stretched and tied across the opening. The rope was not a solid barrier. This condition exposed the victim to a fall hazard. The victim was not wearing a safety belt and line where there was a danger of falling.

This citation is a "Rules to Live By" priority standard.

Approved: _____ Date: 7/20/12

Michael A. Davis
District Manager

APPENDICES

APPENDIX A

Persons Participating in the Investigation

White Rock Quarries

Tony Diaz	Safety Director
Raymond Maddy	Vice-President Operations
Ronnie VanLandingham Jr.	Operations Manager
Nicholas Rudanovich	Mine Manager

Miami-Dade Investigation Medical Examiners Office

Dr. Erica Curry	Associate Medical Examiner

Miami-Dade Police Department Criminal Investigations Division Homicide Bureau

Michael Scott	Detective

Mine Safety and Health Administration

Jeffrey L Phillips	Supervisory Mine Safety and Health Inspector
Larry D. Melton	Mine Safety and Health Inspector

APPENDIX B

Accident Investigation Data - Victim Information
Event Number: 0 9 1 6 8 2 6

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. Degree of Injury:
Guerra Humberto	*M*	*46*	*01 Fatal*

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death:	6. Date and Time Started:
a. Date: 02/26/2012 b.Time: 18:30	*a. Date: 02/22/2012 b.Time: 6:30*

7. Regular Job Title:	8. Work Activity when Injured:	9. Was this work activity part of regular job?
104 Mechanic	*039 Replacing belt pully*	Yes | X | No |

10. Experience	Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days		Years	Weeks	Days
a. This Work Activity:	*7*	*2*	*0*	b. Regular Job Title:	*7*	*2*	*0*	c: This Mine:	*7*	*2*	*0*	d. Total Mining:	*7*	*2*	*0*

11. What Directly Inflicted Injury or Illness?	12. Nature of Injury or Illness:
120 Fell to the ground	*370 Blunt force trama to the head*

13. Training Deficiencies

Hazard:		New/Newly-Employed Experienced Miner:		Annual:		Task:	

14. Company of Employment: (If different from production operator)
Operator

Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment

Not Applicable:		First-Aid:	X	CPR:	X	EMT:	X	Medical Professional:		None:	

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

17. Union Affiliation of Victim: *9999* *None (No Union Affiliation)*