

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

REPORT OF INVESTIGATION

**Surface Nonmetal Mine
(Granite)**

**Fatal Powered Haulage Accident
October 22, 2007**

**McGeorge Contracting Company Inc.
Granite Mountain Quarry #1
Sweet Home, Pulaski County, Arkansas
Mine ID No. 03-00098**

Investigators

**Laurence M. Dunlap
Supervisory Mine Safety and Health Inspector**

**Mark Shearer
Mine Safety and Health Inspector**

**Originating Office
Mine Safety and Health Administration
South Central District
1100 Commerce Street, Room 462
Dallas, Texas 75242
Edward E. Lopez, District Manager**

OVERVIEW

On October 22, 2007, Gary W. Miller, Jr., car man, age 22, was seriously injured when he was struck by a yard locomotive while walking across a rail yard to disconnect several loaded rail cars. He was hospitalized and died of his injuries on October 24, 2007.

The accident occurred because safe work procedures were not followed. The victim walked in front of a moving locomotive and no warning was sounded when the locomotive approached.

GENERAL INFORMATION

Granite Mountain Quarry #1, a granite surface operation owned and operated by McGeorge Contracting Company Inc. (McGeorge), was located about one mile southwest of Sweet Home, Arkansas. The principal operating official was David Cook, general manager. The mine operated one 10-hour production shift and one 10-hour maintenance shift per day, five days per week. Total employment was 92 persons.

Granite rock was drilled and blasted from two benches in the pit and loaded into haul trucks by front-end loaders. The shot rock was delivered to the primary crusher then fed into the plant for further processing. Crushed stone was sold for use in the construction industry.

The last regular inspection of this operation was completed on September 26, 2007.

DESCRIPTION OF ACCIDENT

On the day of the accident, Gary W. Miller, Jr. (victim) reported for work at 7:00 a.m., his normal starting time. He worked routinely as part of a 5-man rail crew during the morning and early afternoon. The rail crew that day consisted of John McNew, supervisor, Tony Shelton, locomotive operator, Jay Criswell, laborer, Dennis Dedmon, car man, and Miller. Each of them had a radio for communication.

About 1:30 p.m., the rail crew finished moving 14 loaded rail cars to the main line track and started back to the mine rail yard. Shelton was at the operator's station in the right rear of a yard locomotive and Criswell was in the left rear of the locomotive watching that side of the tracks for Shelton. McNew was in a pickup truck at the main line when Miller and Dedmon drove away in separate pickup trucks. Miller and Dedmon drove ahead to guard crossings and throw switches as the locomotive moved from the main line back to the rail yard to get more loaded rail cars.

After the locomotive passed Miller and Dedmon, they drove toward the rail yard. Miller was just behind Dedmon, who stopped at the north side of the rail yard to throw the last switch. Miller passed Dedmon, drove along the west side of the rail yard, caught the locomotive, then sped up and passed it. After getting several hundred feet ahead of the locomotive and midway through the rail yard, Miller stopped his pickup truck, got out, and started walking across the rail yard. About 1:45 p.m., he walked across two sets of tracks and onto the spur line.

Miller apparently intended to disconnect 14 loaded rail cars located on the fourth set of tracks east of his pickup truck. Dedmon also intended to disconnect the loaded rail cars but had driven down the east side of the rail yard so he would not have to cross the spur line on which the locomotive was traveling.

While Miller was crossing the rail yard, McNew radioed the crew and instructed them to disconnect only seven cars because it was raining. Miller evidently heard the call and turned down the spur line facing away from the locomotive. He needed to walk about 200 feet down the spur line and over to the next set of tracks east of the spur line to disconnect the 7 loaded rail cars.

The curve of the tracks and the protruding front section of the locomotive caused Shelton to lose sight of Miller when he was about 300 feet in front of the locomotive and 10 feet west of the tracks. Shelton asked Criswell if he could see Miller from his vantage point but Criswell could not.

Shelton then started slowing the locomotive but still traveled the 300-foot distance in just a few seconds. After passing the point where Miller was last seen, Shelton and Criswell looked back and spotted him laying on the tracks. Neither Dedmon nor Miller had yet disconnected the loaded rail cars.

Emergency medical personnel were summoned at 1:57 p.m. and Miller was taken to a local hospital where he died two days later. Death was attributed to massive trauma.

INVESTIGATION OF ACCIDENT

The Mine Safety and Health Administration (MSHA) was notified of the accident at 2:03 p.m. on October 22, 2007, by a telephone call from Loyd Baker, director of safety, to Michael Van Dorn, supervisory mine safety and health inspector. An investigation was started that same day. An order was issued pursuant to Section 103(k) of the Mine Act to ensure the safety of the miners.

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 and employees.

DISCUSSION

Location of the Accident

The accident occurred in the rail yard north of the plant. The weather was overcast and rainy and temperatures were in the low 60's (Fahrenheit).

Rail Yard

The rail yard was located about a quarter mile north of the plant and one mile south of the Union Pacific main line (see Appendix B). The yard was about one-half mile long and extended generally north to south. It consisted of the spur line into the plant and two sets of tracks on either side of it. All five tracks were standard gauge (56.5 inches) with 112-pound rails.

Company locomotives brought empty cars from the main line into the rail yard and returned loaded cars to the main line where they were picked up by Union Pacific.

Locomotive

The locomotive was owned and operated by McGeorge. It was built by Electro-Motive Corporation in La Grange, Illinois, in 1959 and had one 1200-horsepower diesel-electric engine. The locomotive was 44 feet 5 inches long and weighed 248,000 pounds.

Communication

The rail crew employees each had a two-way radio and also used hand signals to communicate with each other. Locomotive operators also attempted to maintain visual contact with all employees.

Training

Gary W. Miller, Jr. had 1 ½ years experience at the mine including one year as a car man. He had received training in accordance with 30 CFR, Part 46.

John McNew had 34 years of mining experience, all at this mine, and had worked on the rail crew for 20 years. Tony Shelton had 16 years mining experience, all at this mine and had 10 years experience on the rail crew including 5 years as a locomotive operator. Dennis Dedmon had four years and eight months mining experience, all at this mine on the rail crew. Jay Criswell had nine months mining experience, all at this mine, and had worked on the rail crew for one month.

Criswell, Dedmon, McNew, and Shelton had received training in accordance with 30 CFR, Part 46. Criswell's new miner training had not been documented. A non-contributory citation was issued.

ROOT CAUSE ANALYSIS

A root cause analysis was conducted and the following causal factors were identified:

Causal Factor: Management policies, standards, and controls were inadequate and failed to implement safe work procedures to ensure that persons could safely work near moving rail cars.

Corrective Action: A risk assessment should be performed to identify all possible hazards and establish policies and procedures to ensure that persons can safely work near moving and switching rail cars.

Causal Factor: Visual contact was not maintained between persons moving rail cars. The locomotive continued to move after the victim was no longer in sight. An audible warning was not sounded when persons were observed.

Corrective Action: Safe work procedures for moving rail cars should ensure that visual contact is maintained between the locomotive operator and persons located near the tracks. An audible warning should always be sounded when persons are observed.

CONCLUSION

The accident occurred because safe work procedures were not followed. The victim walked in front of a moving locomotive and no warning was sounded when the locomotive approached him.

ENFORCEMENT ACTIONS

Order No. 6264905 was issued on October 22, 2007, under the provisions of Section 103(k) of the Mine Act:

A fatal accident occurred at this mine site on October 22, 2007, when a miner was struck by a train while attempting to unhook cars on another line for delivery. This order is to ensure the safety of all persons at this operation. It prohibits activity in this area. The operator shall receive approval from an authorized representative for all actions in the areas of the accident to recover or restore operations.

This order was terminated on October 26, 2007, after the conditions that contributed to the accident no longer existed.

Citation No. 6314964 was issued on November 8, 2007, under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR, Part 56.14214(b):

A fatal accident occurred at this mine on October 22, 2007, when a locomotive ran over a miner walking in the rail yard. A warning was not sounded when the locomotive approached the miner.

This citation was terminated on November 8, 2007, after the operator retrained locomotive operators on the company policy requiring them to sound a warning as it approached persons.

Approved: _____
Edward E. Lopez
District Manager

Date: _____

APPENDIX A

PERSONS PARTICIPATING IN THE INVESTIGATION

McGeorge Contracting Company Inc.

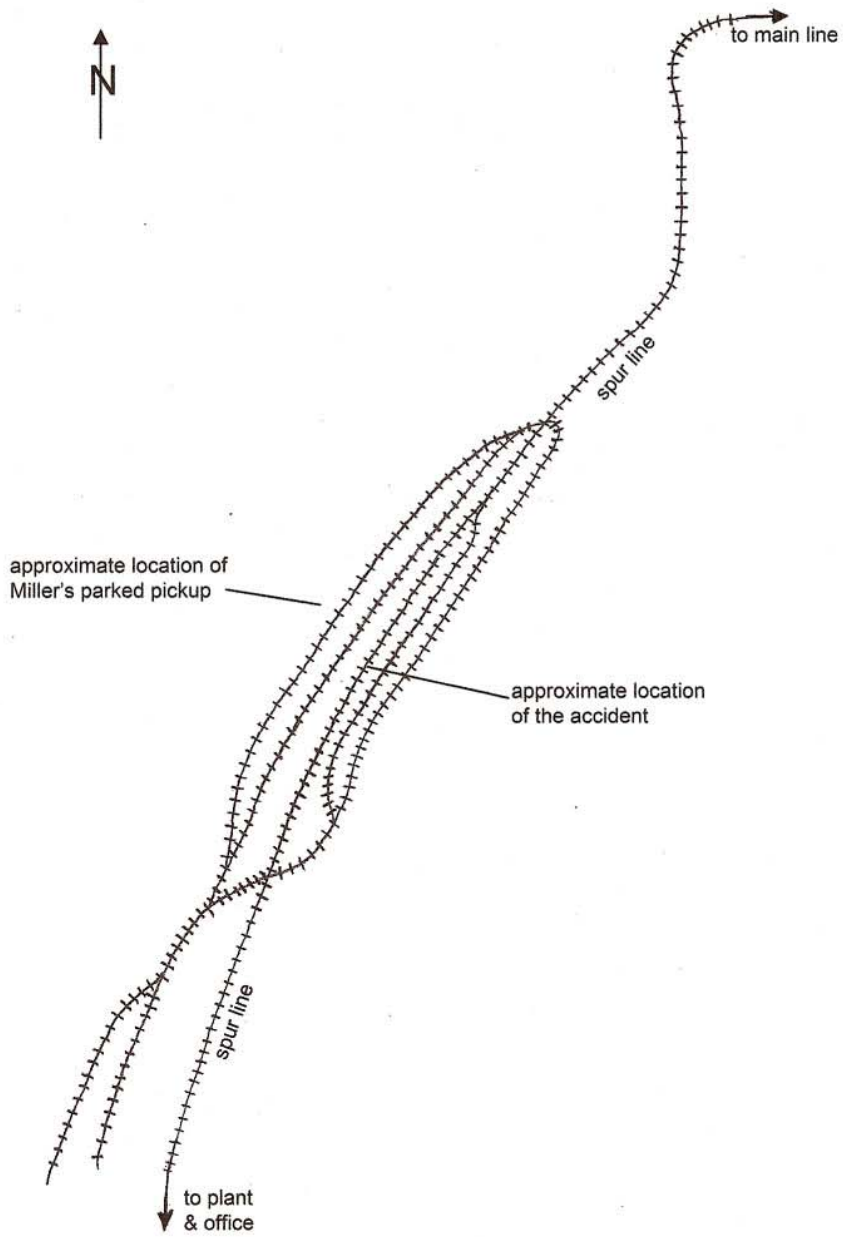
Karen Bolton safety trainer/coordinator

Mine Safety and Health Administration

Laurence M. Dunlap supervisory mine safety and health inspector
Mark Shearer mine safety and health inspector

APPENDIX B

Rail Yard Plot Plan (not to scale)



APPENDIX C

Accident Investigation Data - Victim Information										U.S. Department of Labor					
Event Number: 1 0 4 8 3 9 5										Mine Safety and Health Administration					
Victim Information: 1															
1. Name of Injured/Ill Employee: <i>Gary W. Miller</i>			2. Sex: <i>M</i>	3. Victim's Age: <i>22</i>		4. Last Four Digits of SSN:			5. Degree of Injury: <i>01 Fatal</i>						
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 10/24/2007 b. Time: 6:10</i>						7. Date and Time Started: <i>a. Date: 10/22/2007 b. Time: 7:00</i>									
8. Regular Job Title: <i>154 car man</i>				9. Work Activity when Injured: <i>015 moving rail cars</i>				10. Was this work activity part of regular job? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
11. Experience	Years	Weeks	Days	b. Regular	Years	Weeks	Days	c. This	Years	Weeks	Days	d. Total	Years	Weeks	Days
Work Activity:	<i>1</i>	<i>34</i>	<i>0</i>	Job Title:	<i>1</i>	<i>34</i>	<i>0</i>	Mine:	<i>1</i>	<i>34</i>	<i>0</i>	Mining:	<i>1</i>	<i>34</i>	<i>0</i>
12. What Directly Inflicted Injury or Illness? <i>107 yard locomotive</i>						13. Nature of Injury or Illness: <i>100 amputation, pelvic fracture</i>									
14. Training Deficiencies: Hazard: _____ New/Newly-Employed Experienced Miner: _____ Annual: _____ Task: _____															
15. Company of Employment: (If different from production operator) <i>Operator</i>										Independent Contractor ID: (if applicable)					
16. On-site Emergency Medical Treatment: Not Applicable: <input checked="" type="checkbox"/> First-Aid: _____ CPR: _____ EMT: _____ Medical Professional: _____ None: _____															
17. Part 50 Document Control Number: (form 7000-1)						18. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i>									
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	Years	Weeks	Days	b. Regular	Years	Weeks	Days	c. This	Years	Week	Days	d. Total	Years	Weeks	Days
Work Activity:				Job Title:				Mine:				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	Years	Weeks	Days	b. Regular	Years	Weeks	Days	c. This	Years	Week	Days	d. Total	Years	Weeks	Days
Work Activity:				Job Title:				Mine:				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:									