

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

REPORT OF INVESTIGATION

**Surface Nonmetal Mine
(Sand and Gravel)**

**Fatal Powered Haulage Accident
November 13, 2010**

**Dennis' Heavy Equipment Repair
Contractor ID No. A1494**

at

**Hutchins Sand & Gravel
Hutchins Sand & Gravel
Ferris, Dallas County, Texas
Mine ID No. 41-04611**

Investigators

**David B. Hamm
Mine Safety and Health Specialist**

**Jim B. Dobyns
Mine Safety and Health Inspector**

**Mark W. Lipe
Mine Safety and Health Specialist**

**Ronald Medina, P.E.
Mechanical Engineer**

**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 November 13, 2010, Dennis L. Speicher, contract mechanic, age 42, died when a front-end loader rolled over him. Speicher was underneath the loader, with the engine running, checking for leaking fluid.

The accident occurred because management policies and procedures did not ensure that persons could safely perform maintenance tasks on a front-end loader. The power was not off and the front-end loader was not blocked against hazardous motion. The machine was parked on a slight grade, the bucket was raised off the ground, and the wheels were not chocked.

GENERAL INFORMATION

Hutchins Sand & Gravel (Hutchins), a surface sand and gravel operation, owned and operated by Hutchins Sand & Gravel, is located near Ferris, Dallas County, Texas. The principal operating official is Paul Leighton, owner. The mine operates one 10-hour shift per day, five days per week. Total employment is five persons.

Material is removed from a single-bench pit using excavators. Mined material is hauled by trucks to an on-site plant where run-of-mine material is screened and washed. Final products are sold to the public for a variety of commercial and residential uses.

Dennis' Heavy Equipment Repair (Dennis), an equipment repair contractor, was located in Denton, Denton County, Texas. Dennis performed mobile equipment repairs at Hutchins on an as-needed basis. Dennis Speicher, owner, was a sole proprietor.

The last regular inspection at this operation was completed on November 9, 2010.

DESCRIPTION OF THE ACCIDENT

On the day of the accident, Dennis Speicher (victim) arrived at the mine at 7:50 a.m. to check out a reported transmission oil leak on a front-end loader. Speicher parked his service truck at the mobile equipment refueling area and walked to the front-end loader. Jose Ibanez, supervisor, was using the machine to load customer trucks. He stopped and Speicher drove the loader to the refueling area and parked it near his service truck.

Ibanez was standing about 100 feet from Speicher and could see him raising and lowering the front-end loader bucket. Ibanez heard the backup alarm sound as Speicher moved the loader backward and forward. He saw Speicher exit the front-end loader twice to check underneath for an oil leak.

About 8:15 a.m., Ibanez momentarily looked away and then heard noise coming from the direction of the front-end loader. He turned and saw Speicher lying on the ground behind the right rear tire of the machine.

Ibanez ran to Speicher, called Paul Leighton to report the accident, and then called for emergency medical services (EMS). Two officers from the Hutchins Police Department arrived. At that time, the loader was still running and the transmission was in neutral.

EMS arrived shortly and summoned the medical examiner, who pronounced Speicher dead at 9:38 a.m. The cause of death was attributed to multiple blunt force injuries.

INVESTIGATION OF THE ACCIDENT

On the day of the accident, the Mine Safety and Health Administration (MSHA) was notified at 8:38 a.m. by a telephone call from Paul Leighton, owner, to MSHA's emergency hotline. Fred Gatewood, assistant district manager, was notified and an

investigation began the same day. An order was issued pursuant to section 103(j) of the Mine Act to ensure the safety of miners. This order was modified to section 103(k) of the Mine Act when the first authorized representative arrived at the mine. A citation was issued for untimely reporting of the accident.

MSHA's investigators 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 and the Hutchins Police Department.

DISCUSSION

Location of the Accident

The accident occurred at a refueling area just north of the mine office. The front-end loader was parked on a 3 percent grade. The weather at the time of the accident consisted of clear skies and a temperature of 60 degrees Fahrenheit. The weather was not considered to be a contributing factor.

Front-end Loader

The front-end loader involved in the accident was a 2006 Kawasaki 80ZV rubber-tired loader with a 4-yard bucket. It was 26 feet 3 inches long and 8 feet 9 inches wide (outside tire to outside tire) and had an operating weight of 38,140 pounds. The front-end loader was powered by a 6-cylinder turbo-charged diesel engine that was rated at 215 horsepower at 2200 rpm. The loader engine had been replaced about two weeks prior to the accident. The front-end loader was equipped with an electronically controlled transmission that had four forward and four reverse speeds and a neutral position.

The service brakes and parking brake on the front-end loader were inspected and found to operate as described in the operation and maintenance manual for the machine. Both sets of brakes held the front-end loader on the 3 percent grade at the accident scene. The brakes were also tested on a ramp with a grade of 15 percent and they held the machine in place.

The tire pressure in the left rear tire of the front-end loader was only 28 psi at the time of the investigation. Mine personnel indicated that all four tires were normally maintained at 50 psi and the left rear tire had to be pressurized every few days because of a slow air leak. At the accident scene, the front-end loader rolled very slowly when the brakes were released due to the low pressure in the tire. After pressurizing the tire to 50 psi, the front-end loader readily rolled after releasing the brakes.

The throttle and steering on the front-end loader were inspected and no defects were found.

Dennis was called to fix a transmission leak on the front-end loader. Investigators determined that there was not any leak but both the engine and transmission had been overfilled. The overfilled transmission caused the dripping oil.

Training and Experience

Dennis L. Speicher (victim) had 23 years of experience. He had performed maintenance work for 2 years at this operation. Investigators were unable to determine if he had received any training required by 30 CFR Part 46. A non-contributory citation was issued for inadequate site-specific hazard awareness training.

ROOT CAUSE ANALYSIS

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

Root Cause: The contractor did not utilize safe work procedures while performing maintenance work on mobile equipment.

Corrective Action: The victim was a sole proprietor working as a contractor. Upon his death, the sole proprietorship ceased to exist.

Root Cause: Mine management failed to correct unsafe work practices by the contractor working on mobile equipment at the mine.

Corrective Action: All persons were retrained in proper procedures for working around unattended mobile equipment. Mine management will monitor contractors working at the mine for safe work practices.

CONCLUSION

The accident occurred because management policies and procedures did not ensure that persons could safely perform maintenance tasks on a front-end loader. The power was not off and the front-end loader was not blocked against hazardous motion. The machine was parked on a slight grade, the bucket was raised off the ground, and the wheels were not chocked.

ENFORCEMENT ACTIONS

Hutchins Sand and Gravel

Order No. 8615442 was issued on November 13, 2010, under the provisions of Section 103(j) of the Mine Act:

A fatal accident occurred at Hutchins Sand and Gravel at 8:15 a.m. on November 13, 2010. This order is issued to prevent destruction of evidence and to prohibit all activities at the mine until the area is safe.

This order was modified to a 103(k) order when the first investigator arrived at the mine. It was terminated on November 15, 2010, after conditions that contributed to the accident no longer existed.

Citation No. 7875367 was issued on November 30, 2010, under the provisions of Section 104(d)(1) of the Mine Act for a violation of 30 CFR 56.14105:

A fatal accident occurred at this operation on November 13, 2010, when a front-end loader rolled over a contract mechanic. The victim was performing maintenance on the loader but he was not effectively protected from hazardous motion by the loader. Mine management engaged in aggravated conduct constituting more than ordinary negligence in that the supervisor did not remove the victim from an imminent danger situation when he knew the victim was underneath a loader that was setting on a grade. This violation is an unwarrantable failure to comply with a mandatory standard.

This citation was terminated on November 30, 2010, after all persons were retrained in proper procedures to block and secure equipment before work is performed.

Citation No. 7875368 was issued on November 30, 2010, under the provisions of Section 104(a) of the Mine Act for a violation of 30 CFR 56.14206:

A fatal accident occurred at this operation on November 13, 2010, when a front-end loader rolled over a contract mechanic. The victim was underneath the front-end loader performing maintenance. The front-end loader was unattended and the bucket was not lowered to the ground.

This citation was terminated on November 30, 2010, after all persons were instructed concerning lowering mobile equipment components to the ground.

Dennis' Heavy Equipment Repair

Citation No. 7875369 was issued on November 30, 2010, under the provisions of Section 104(d) (1) of the Mine Act for a violation of 30 CFR 56.14105:

A fatal accident occurred at this operation on November 13, 2010, when a front-end loader rolled over a contract mechanic. The victim was performing maintenance on the loader. The power was not off and the machine was not blocked against hazardous motion. The contract mechanic engaged in aggravated conduct constituting more than ordinary negligence in that he knew the power was not off the machine and it was not blocked against hazardous motion. This violation is an unwarrantable failure to comply with a mandatory standard.

This citation was terminated on November 30, 2010, based upon the fact that Dennis Speicher was a sole proprietor working as a contractor. Upon his death, the sole proprietorship ceased to exist.

Citation No. 7875370 was issued on November 30, 2010, under the provisions of Section 104(d) (1) order of the Mine Act for a violation of 30 CFR 56.14206:

A fatal accident occurred at this operation on November 13, 2010, when a front-end loader rolled over a contract mechanic. The victim was underneath the front-end loader performing maintenance. The front-end loader was unattended and the bucket was not lowered to the ground. The contract mechanic engaged in aggravated conduct constituting more than ordinary negligence in that he knew the front-end loader was operating and did not ensure the bucket on the machine was lowered to the ground. This violation is an unwarrantable failure to comply with a mandatory standard.

This citation was terminated on November 30, 2010, based upon the fact that Dennis Speicher was a sole proprietor working as a contractor. Upon his death, the sole proprietorship ceased to exist.

Approved: _____

Edward E. Lopez
District Manager

Date: _____

Appendix A

Persons Participating in the Investigation

Hutchins Sand and Gravel

Paul Leighton	Owner
Jose Ibanez	Supervisor

Hutchins Police department

Matt Karnes	Sergeant
Steve Perry	Captain
David Smith	Corporal

Mine Safety and Health Administration

David B. Hamm	Mine Safety and Health Specialist
Jim B. Dobyns	Mine Safety and Health Inspector
Mark W. Lipe	Mine Safety and Health Specialist
Ronald Medina, P.E.	Mechanical Engineer

Appendix B

Accident Investigation Data - Victim Information										U.S. Department of Labor					
Event Number:										Mine Safety and Health Administration					
Victim Information: 1															
1. Name of Injured/Ill Employee: <i>Dennis L. Spelcher</i>		2. Sex <i>M</i>	3. Victim's Age <i>42</i>		4. Degree of Injury: <i>01 Fatal</i>										
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 11/13/2010 b. Time: 8:15</i>					6. Date and Time Started: <i>a. Date: 11/13/2010 b. Time: 7:50</i>										
7. Regular Job Title: <i>104 Contrator mechanic</i>			8. Work Activity when Injured: <i>039 detecting hydraulic leak</i>				9. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input checked="" 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>23</i>	<i>0</i>	<i>0</i>		<i>23</i>	<i>0</i>	<i>0</i>		<i>2</i>	<i>0</i>	<i>0</i>		<i>23</i>	<i>0</i>	<i>0</i>
11. What Directly Inflicted Injury or Illness? <i>076 rolled over by</i>					12. Nature of Injury or Illness: <i>170 ran over by loader tire</i>										
13. Training Deficiencies															
Hazard:		New/Newly-Employed	Experienced Miner:		Annual:		Task:								
14. Company of Employment: (if different from production operator) <i>Dennis' Heavy Equipment Repair</i>										Independent Contractor ID: (if applicable) <i>A1494</i>					
15. On-site Emergency Medical Treatment															
Not Applicable:	<input checked="" type="checkbox"/>	First-Aid:		CPR:		EMT:		Medical Professional:		None:					
16. Part 50 Document Control Number: (form 7000-1)										17. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i>					