

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

REPORT OF INVESTIGATION

Surface Nonmetal Mine  
Sand & Gravel

Fatal Falling Material Accident  
March 27, 2014

Baillio Sand Company, Inc.  
Lord Farm #5  
Virginia Beach, Virginia  
Mine I.D. No. 44-06068

Investigators

Gary C. Merwine  
Mine Safety and Health Inspector

John J. Labota  
Mine Safety and Health Inspector

Fred R. Martin  
Mine Safety and Health Specialist (Training)

Originating Office

Mine Safety and Health Administration  
Northeast District  
Thorn Hill Industrial Park  
178 Thorn Hill Road, Suite 100  
Warrendale, Pennsylvania 15086-7573  
Donald J. Foster, Jr., Northeast District Manager



## OVERVIEW

On March 27, 2014, Robert J. Devich, Manager, age 64, was seriously injured when he was struck by an 8-inch diameter plastic slurry pipe that was being moved with an excavator. Devich was standing near the excavator when the unsecured pipe fell from the excavator bucket and struck him. Devich was hospitalized and died on March 30, 2014, as a result of his injuries.

The accident occurred due to management's failure to establish procedures to ensure the slurry pipe was secured before it was moved. Devich had not received adequate task training in safe operating procedures related to the assigned task as required. Additionally, Devich was not wearing a suitable hard hat in an area where falling objects created a hazard.

## GENERAL INFORMATION

Lord Farm #5, an open pit sand quarry, owned and operated by Baillio Sand Company, Inc., is located in Virginia Beach, Virginia. John M. Baillio, President, and Robert H. Baillio, Vice President, are the principal operating officials. The mine operates intermittently one eight hour shift per day, five days per week. Total employment is three persons.

Sand is extracted using an excavator that digs a hole approximately ten feet deep. As water fills the resultant hole, a submersible pump is used to extract an additional 20 feet of the sand/water slurry and discharge the mixture onto an onshore stockpile. A second excavator is used at the stockpile to load customer trucks. The sand is sold for various uses in the construction industry.

The mine was placed in abandoned status on December 1, 2006, when the dredge and processing plant were removed from the site. In January 2007, the mine operator started mining in a field across the road, but failed to notify the Mine Safety and Health Administration (MSHA) that mining had resumed. A noncontributory citation was issued for a violation of 30 CFR § 56.1000.

## DESCRIPTION OF ACCIDENT

On March 27, 2014, the day of the accident, Robert J. Devich (victim) reported for work at 7:00 a.m., his normal starting time. Devich and John M. Baillio spoke in the mine office before starting work. At that time, Devich was assigned to load customer trucks from the onshore sand stockpile.

Baillio left the mine office and drove to the active mining area. He operated an excavator to move an 8-inch diameter slurry pipe to a new pumping location. After Baillio curled the excavator bucket to grasp the unsecured slurry pipe, he lifted it and pulled westward toward a fixed electrical utility pole. Since the discharge end of the slurry pipe extended past the utility pole, Baillio had to maneuver the pipe around the pole to position it in the new pumping location.

As Baillio was moving the pipe around the utility pole, he saw Devich walking toward the area, stopping on the east side of the pole. Devich then assisted Baillio by providing hand signals to indicate when the pipe had cleared the pole. After the pipe had cleared the pole, Baillio moved the excavator backwards. At that time, the discharge end of the pipe was approximately 8 to 12 feet in the air. As Baillio tracked the excavator backwards, he first focused on having the excavator's boom clear the overhead power lines. Due to soft ground conditions in the area, Baillio looked over his left shoulder to see how far the excavator could safely travel in reverse. Baillio then realized the slurry pipe had fallen off the excavator bucket and stopped the machine. As Baillio attempted to retrieve the pipe, he saw Devich lying on the ground west of the utility pole.

Baillio immediately climbed out of the excavator cab and ran to Devich who was unresponsive and bleeding. He attempted to administer first aid and then called 9-1-1 for emergency assistance. When rescue personnel responded to the scene, they administered cardiopulmonary resuscitation (CPR) and revived the victim. Devich was transported by ambulance to a hospital where he died on March 30, 2014, as a result of his injuries. The cause of death was attributed to blunt force trauma.

## INVESTIGATION OF ACCIDENT

On March 27, 2014, John M. Baillio, President, contacted the Virginia Department of Mines, Minerals, and Energy (DMME) within one hour of the accident. Baillio did not report the accident or subsequent death of the victim to MSHA. A noncontributory citation was issued for this violation of 30 CFR § 50.10(b) during the accident investigation.

MSHA became aware of the accident at 7:50 p.m. on April 3, 2014, when a DMME Safety Alert was posted on the internet by DMME and subsequently e-mailed to Joseph H. Bosley, Supervisory Mine Safety and Health Inspector, Staunton, Virginia Field Office. Dennis A. Yesko, Assistant District Manager, was notified and an investigation started the next day. An order was issued under provisions of Section 103(k) of the Mine Act after the arrival of an Authorized Representative at the mine site.

MSHA's accident investigation team traveled to the mine, conducted a physical inspection of the accident site, interviewed employees, and reviewed documents,

conditions, and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management and employees, DMME, and local law enforcement and rescue agencies.

## DISCUSSION

### Location of the Accident

The accident occurred on a peninsula in the pit area which is surrounded by water on three sides. Persons accessed the area by pickup truck or on foot to conduct mining activities.

### Weather

The weather on the day of the accident was clear with a low temperature of 30 degrees Fahrenheit and a high of 47 degrees Fahrenheit. Sunrise was at 7:10 a.m. Weather and visibility were not considered to be factors in the accident.

### Equipment Involved

The Daewoo Model DH220LC excavator involved in the accident was equipped with a 0.45 cubic yard bucket. The excavator was used to dig a 10-foot deep hole and to move the associated 8-inch diameter slurry line to a new location after all of the sand slurry was pumped from the existing hole to shore. The excavator was inspected and no violations were found.

### Training and Experience

Robert J. Devich (victim) had 32 years of mining experience, all with Baillio Sand Company, Inc. A representative of MSHA's Educational Field Services conducted an in-depth review of the mine operator's training records. Although the mine operator had a written Part 46 training plan in place, all of the victim's training had been conducted at another company-owned mine and did not address site-specific hazards at this mine. There was no evidence to show that the victim and other employees at this mine received adequate task training in safe operating procedures related to moving the slurry pipe from place to place.

## ROOT CAUSE ANALYSIS

An analysis was conducted to identify the underlying cause of the accident. Listed below is the root cause identified during the analysis and the corresponding corrective action implemented to prevent a recurrence of the accident.

**Root Cause:** Management failed to establish procedures to ensure that persons could move the slurry pipe from place to place in a safe manner and failed to provide miners with

adequate task training in safe operating procedures. During the process of moving the slurry pipe, it was not secured. The victim did not wear a hard hat in an area where falling objects created a hazard.

**Corrective Action:** Management developed written procedures to ensure that persons are protected when slurry pipes are moved. The procedures require that a suitable choker cable is used to secure the pipe and that persons stay clear of suspended loads and wear hard hats in areas where falling objects create a hazard. All persons were trained in these new procedures.

## CONCLUSION

The accident occurred due to management's failure to establish procedures to ensure the slurry pipe was secured before it was moved. Devich had not received adequate task training in safe operating procedures related to the assigned task as required. Additionally, Devich was not wearing a suitable hard hat in an area where falling objects created a hazard.

## ENFORCEMENT ACTIONS

### **Issued to Baillio Sand Company, Inc.**

**Order No. 8800513** - Issued on April 4, 2014, under the provisions of Section 103(k) of the Mine Act:

*A serious accident occurred at this operation on March 27, 2014 at approximately 0840. The victim was transported to a local hospital and died three days later, as a result of his injuries. This order is issued to ensure the safety of all persons at this operation. This order is also issued to prevent the destruction of any evidence which would assist in investigating the cause of the accident. It prohibits all activity at the Lord Farm # 5 until MSHA has determined that it is safe to resume normal mining operations. This order requires the mine operator to obtain prior approval from an authorized representative for all actions to restore operations to the affected area.*

The Order was terminated on April 7, 2014, after conditions that contributed to the accident no longer existed.

**Citation No. 8800555** - Issued under the provisions of 104(d)(1) of the Mine Act for violation of 30 CFR § 56.9201:

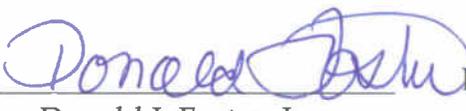
*On March 27, 2014, a serious accident occurred when an excavator was used to move an 8-inch diameter plastic suction pipe to a new pumping location and the unsecured pipe fell off the excavator bucket striking the victim in the head. The victim died three days later, as a result of the injuries. At the time of the accident, John Baillio, owner, was operating the excavator and he had previously moved the pipe numerous times in this same manner. This was not the first time that the unsecured pipe had fallen off of the excavator bucket. John Baillio, President (owner), engaged in aggravated conduct constituting more than ordinary negligence in that he was aware the pipe was not secured and an employee was in the area. This is an unwarrantable failure to comply with a mandatory safety standard.*

**Citation No. 8800556** - Issued under the provisions of 104(a) of the Mine Act for violation of 30 CFR § 56.15002:

*On March 27, 2014, a serious accident occurred when an excavator was used to move an 8-inch diameter plastic suction pipe to a new pumping location and the unsecured pipe fell off the excavator bucket striking the victim in the head. The victim died three days later, as a result of the injuries. At the time of the accident, John Baillio, owner, was operating the excavator and the victim was acting as his spotter. The victim was standing in close proximity to the excavator as the pipe was being moved and he was not wearing a hardhat.*

**Citation No. 8800557** - Issued under the provisions of 104(a) of the Mine Act for violation of 30 CFR § 46.7(a):

*On March 27, 2014, a serious accident occurred when an excavator was used to move an 8-inch diameter plastic suction pipe to a new pumping location and the unsecured pipe fell off the excavator bucket striking the victim in the head. The victim died three days later, as a result of the injuries. At the time of the accident, management failed to establish procedures to ensure that persons could move the slurry pipe from place to place in a safe manner. Although the mine operator had a written Part 46 training plan in place, all of the victim's training had been conducted at another company-owned mine and did not address site-specific hazards at this mine. There was no evidence to show that the victim and other employees at this mine received adequate task training in safe operating procedures related to the assigned task as required.*

Approved by:  Date: June 23, 2014  
Donald J. Foster, Jr.  
District Manager

## APPENDIX A

### PERSONS PARTICIPATING IN THE INVESTIGATION

#### Baillio Sand Company, Inc.

John M. Baillio	President of Operations
Frank E. Fahrig	Administrative Assistant
Mark H. Swindell	Foreman

#### Virginia Department of Mines Minerals and Energy

James E. Schaefer	Inspector, Area 11
James P. Skorupa	Eastern Supervisor

#### Virginia Beach Police Department

T. J. Jones	Detective
George Anderson	Officer

#### Mine Safety and Health Administration

Gary C. Merwine	Mine Safety and Health Inspector
John J. Labota	Mine Safety and Health Inspector
Fred R. Martin	Mine Safety and Health Specialist (Training)

## APPENDIX B

### VICTIM INFORMATION

Accident Investigation Data - Victim Information

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



Event Number: 0 8 2 2 6 5 9

Victim Information: 1																																															
1. Name of Injured/Ill Employee: <i>Robert J. Devich</i>				2. Sex <i>M</i>		3. Victim's Age <i>64</i>		4. Degree of Injury: <i>01 Fatal</i>																																							
5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 03/30/2014 b. Time: 8:30</i>								6. Date and Time Started: <i>a. Date: 03/27/2014 b. Time: 6:30</i>																																							
7. Regular Job Title: <i>189 Operating slurry pump</i>						8. Work Activity when Injured: <i>041 Moving slurry pipe</i>						9. Was this work activity part of regular job? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																			
10. Experience a. This			Years			Weeks			Days			b. Regular Job Title:			Years			Weeks			Days			c. This Mine:			Years			Weeks			Days			d. Total Mining:			Years			Weeks			Days		
Work Activity:			<i>32</i>			<i>0</i>			<i>0</i>			Job Title:			<i>32</i>			<i>0</i>			<i>0</i>			Mine:			<i>32</i>			<i>0</i>			<i>0</i>			Mining:			<i>32</i>			<i>0</i>			<i>0</i>		
11. What Directly Inflicted Injury or Illness? <i>127 Slurry Pipe</i>								12. Nature of Injury or Illness: <i>140 Struck on head</i>																																							
13. Training Deficiencies: Hazard: _____ New/Newly-Employed Experienced Miner: _____ Annual: _____ Task: _____																																															
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: _____ First-Aid: <input checked="" type="checkbox"/> CPR: <input checked="" type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: _____ None: _____																																															
16. Part 50 Document Control Number: (form 7000-1)								17. Union Affiliation of Victim: <i>9999</i> <i>None (No Union Affiliation)</i>																																							