

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface Limestone Mine

Fatal Slip or Fall of Person Accident
July 15, 2019

Tazewell Quarry
Vulcan Construction Materials, LLC
Tazewell, Claiborne County, Tennessee
I.D. No. 40-00100

Accident Investigator

Phillip Carter
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 7
3837 S U.S. Hwy 25E, Barbourville, Kentucky 40906
Samuel Creasy, District Manager

TABLE OF CONTENTS

OVERVIEW	1
GENERAL INFORMATION.....	1
DESCRIPTION OF THE ACCIDENT	1
INVESTIGATION OF THE ACCIDENT.....	2
DISCUSSION.....	3
Victim’s Health	3
Chargeability Review Committee	3
Weather	3
ROOT CAUSE ANALYSIS.....	3
CONCLUSION.....	4
APPENDIX A - Persons Participating in the Investigation.....	5

OVERVIEW

On Monday, July 15, 2019, at approximately 8:30 a.m., Mark Burns, a 62-year-old plant manager with over 23 years of mining experience, stumbled on a ridge, three to four inches high, while he was on a drill bench and planted his right heel to regain his balance. This caused a compound fracture in his right foot and aggravated a pre-existing injury.

On July 19, 2019, Burns was at a medical center for scheduled surgery on his right foot. While he was undergoing preoperative procedures, he became unresponsive. Medical personnel stabilized Burns, placed him on a ventilator, and transferred him to the Intensive Care Unit. On Saturday, July 20, 2019, at 12:13 a.m., Burns died at the medical center.

GENERAL INFORMATION

The Tazewell Quarry is an open pit limestone mine, which employed 12 miners. The mine worked one, nine-hour shift, five days each week. The mine drills and blasts limestone using various surface equipment including bulldozers, drills, haul trucks, front-end loaders and excavators.

The principal officers for Vulcan Construction Materials, LLC at the time of the accident were:

Michael Mills	President
Suzanne Wood	Senior Vice President
Stan Bass.....	Vice President

The Mine Safety and Health Administration (MSHA) completed the last regular E01 safety and health inspection on March 27, 2019. This mine is in intermittent status (one inspection per year). The non-fatal days lost (NFDL) incidence rate for the mine for 2018 was 13.58 compared to the national average of 1.36 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On July 15, 2019, at approximately 6:30 a.m., Mark Burns, Plant Manager, arrived at the mine before the shift began at 7:00 a.m. and began working on paperwork in the mine office. At 7:00 a.m., Burns assigned tasks to the crew, who left the office and traveled to the job site while Burns stayed in the mine office and continued his paperwork.

At approximately 8:30 a.m., Burns drove his truck to the drill bench to discuss the blasting plan with the drill crew. Burns got out of his truck and walked over to the drill crew. Burns reported that he stepped on a small ridge, three to four inches high. According to Burns, when he stepped on the ridge, he stumbled and planted his right heel to regain balance. Although there were no witnesses, when Burns did this, a blister burst on his right foot. Burns left the drill bench, returned to the mine office, and told Gary Joseph, Plant Office Administrator, that he was going

home because his right foot was bleeding. Joseph offered to provide first aid but Burns declined his offer. Burns left the mine at approximately 9:30 a.m.

While home on July 15, 2019, Burns decided to have his foot examined by his physician the following morning. On July 16, 2019, he went to Volunteer Podiatry in Knoxville, Tennessee. The doctor ordered an x-ray of Burns' right foot and diagnosed him with a torn Achilles tendon and compound heel fracture, which required surgical repair. The examination also revealed that the foot was severely infected. The doctor admitted Burns in the Parkway Medical Center (medical center) in Knoxville, Tennessee and administered antibiotics to treat the infection until Burns' surgery on July 19, 2019. On July 19, 2019, Burns became unresponsive while medical personnel performed preoperative procedures. Hospital personnel stabilized Burns, placed him on a ventilator, and transferred him to the Intensive Care Unit. On Saturday, July 20, 2019 at 12:13 a.m., Burns died at the medical center. Dr. William Russell Oliver, M.D. pronounced Burns dead and the State of Tennessee Certificate of Death lists the cause of death as "Complications of Heel Fracture."

INVESTIGATION OF THE ACCIDENT

When Andrew Ramey, Safety Representative, learned that medical personnel had put Burns on a ventilator at the medical center, he called the Department of Labor National Contact Center (DOLNCC) at 4:56 p.m. on July 19, 2019, to report that a life-threatening accident had occurred. The DOLNCC called Argus Brock, Roof Control Supervisor, and provided the details of the escalation report. Samuel Creasy, District Manager, called Craig Plumley, Assistant District Manager, and Ryan O'Boyle, Knoxville Field Office Supervisor. O'Boyle contacted Phillip Carter, Accident Investigator, and instructed him to lead the accident investigation.

On Saturday, July 20, 2019, at 10:29 a.m., Ramey again contacted the DOLNCC and informed them that Burns died. The DOLNCC called Brock and informed him of Burns's death. O'Boyle contacted the mine operator and was informed that the mine was not in operation over the weekend. Investigators scheduled the on-site investigation and formal interviews for the morning of Monday, July 22, 2019, at the mine.

After meeting with company management personnel on July 22, 2019, Carter, Plumley, and O'Boyle drove to the accident scene at 9:00 a.m. After the accident, work continued because company personnel did not consider Burns' injury to be life threatening. As such, the bench where the accident occurred was only partially intact because part of it was moved by a blast on July 17, 2019. The portion of the bench which was still intact appeared to be smooth with no big rocks or ruts.

After the on-site investigation of the accident location, investigators conducted interviews on July 22, 2019, at the mine office (see Appendix A).

DISCUSSION

Victim's Health

Burns had a history of medical conditions that had caused him to miss a combined total of approximately one year of work over the previous two years, and which resulted in limited sensation in his feet.

During interviews, investigators learned that Burns told his co-workers that he struck his right foot on his bed at home two to three weeks before he died, which caused his foot to bleed. The incident caused a blood blister on his foot; however, Burns did not seek treatment for this injury.

Chargeability Review Committee

When a miner's death is not conclusively determined to be chargeable to the mining industry, MSHA submits the case, including facts and supporting information, to the MSHA Chargeability Review Committee (Committee) for a decision. The Committee examined whether the heel fracture could have been due to the earlier incident rather than the July 15, 2019, incident at the mine and consulted with the podiatrist. Based on the death certificate, medical evidence, and MSHA's investigation, the Committee concluded that Mr. Burns' death should be charged to the mining industry because his death was due to complications from an injury suffered at the mine.

Weather

The weather conditions at the time of the accident were dry with a temperature of about 77°F. There had been no precipitation in the past twenty-four hours. The weather was not a factor in the accident.

ROOT CAUSE ANALYSIS

MSHA conducted an analysis to determine if the fundamental cause of the accident was correctable through reasonable management controls.

Listed below is the root cause identified during the analysis and the corresponding corrective action implemented to prevent a recurrence.

Root Cause: The plant manager stumbled while walking on a drill bench and injured his heel as he attempted to regain his balance.

Corrective Action: On January 31, 2020, the mine operator conducted safety meetings with all the miners regarding the importance of examining work areas to assure that they are safe and free of tripping hazards.

CONCLUSION

On Monday, July 15, 2019, at approximately 8:30 a.m., Mark Burns, a 62-year-old plant manager with over 23 years of mining experience, stumbled on a ridge, three to four inches high, while he was on a drill bench and planted his right heel to regain his balance. This caused a compound fracture in his right foot and aggravated a pre-existing injury.

On July 19, 2019, Burns was at a medical center for scheduled surgery on his right foot. While he was undergoing preoperative procedures, he became unresponsive. Medical personnel stabilized Burns, placed him on a ventilator, and transferred him to the Intensive Care Unit. On Saturday, July 20, 2019, at 12:13 a.m., Burns died at the medical center.

Samuel R. Creasy
District Manager

Date

APPENDIX A
Persons Participating in the Investigation

Vulcan Construction Materials, LLC., Tazewell Quarry Mine Officials and Employees

Gary Joseph.....Plant Office Administrator
Brandon BournesArea Manager
Andrew RameySafety Representative
Payton Ratliff..... Driller
Dustin Phillips..... Driller
Margaret Lopez..... Attorney
Mike Junkerman..... Safety

Mine Safety and Health Administration

Samuel Creasy District Manager
Craig PlumleyAssistant District Manager
Ryan O’BoyleKnoxville Field Office Supervisor
Phillip Carter.....Mine Safety and Health Inspector