

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface Mine
(Sandstone)

Fatal Lightning Accident
August 27, 2019

Premium Sandstone, LLC
Premium Sandstone Quarry
Gordon, Palo Pinto County, Texas
ID No. 41-04918

Investigator

Robert Dreyer
Mine Safety and Health Specialist

Originating Office
Mine Safety and Health Administration
Central Region - Dallas District
1100 Commerce Street RM 462
Dallas, TX 75242
William O'Dell, District Manager

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OVERVIEW

Jose Manuel Barcenas, a 46-year-old Splitter/Chopper with six days of experience at this mine, died on August 27, 2019, from a lightning strike. The victim had stopped splitting and sorting rock and was walking back to a canopy to take shelter when the accident occurred.

GENERAL INFORMATION

Premium Sandstone LLC owns and operates the Premium Sandstone Quarry located in Palo Pinto County, near Gordon, Texas. The mine operates one, ten-hour shift, five days per week, and employs 28 miners. The mine extracts sandstone using excavators in an open pit. Sandstone is sized by hand, using a splitting maul, for sale to construction and landscaping industries.

The principal officers for the Premium Sandstone LLC at the time of the accident were:

Joel Taylor	Member
Robert Deanda	Member
Michael Ruff.....	Member

The Mine Safety and Health Administration (MSHA) conducted the last regular inspection on April 4, 2019. The non-fatal day's lost incident rate for Premium Sandstone for 2019 was 0, compared to the national average of 1.22 for mines of this type.

DESCRIPTION OF ACCIDENT

On August 27, 2019, J. Barcenas and his brother, Miguel Angel Barcenas, Splitter/Chopper, arrived at work at approximately 7:00 a.m. They received an alert on their personal cell phones that a storm might be coming through the area. As the operator did not have a severe weather warning system in place, miners onsite relied on visual observations or their personal cell phones for warnings of storms and lightning to cease work and seek shelter. The two miners went straight to their designated work area and began to manually split and sort rock until 8:00 a.m. When they observed heavy rains and lightning in the distance, the two miners sought shelter from the storm under a large structure with open walls and roof referred to as a "canopy." The canopy was approximately 500 feet from their work site. Believing the storm had passed, the brothers returned to their work area to continue the process of splitting and sorting rock at approximately 9:00 a.m.

At approximately 10:00 a.m., Manuel Sanchez, Supervisor, observed lightning in the western horizon from his location in the scale house. The scale house is approximately one mile away from the accident site. Shortly before the accident, the storm was in the immediate area and Sanchez began shutting the operation down.

At approximately 10:40 a.m., J. Barcenas noticed another storm approaching and told his brother that they needed to go back to the canopy. As J. Barcenas reached down to pick up his wood-handled splitting maul, M. Barcenas heard two separate and distinct clashes of thunder and saw lightning strike J. Barcenas. The lightning struck the victim's hand and exited his foot. Moments before the accident Martin Rodriguez, Supervisory Operator, noticed lightning coming towards the mine and called Elidío Mulato, Splitter/Chopper, to instruct him to stop work and to tell the brothers to stop work. During the call, Rodriguez heard a loud noise and Mulato then told him that he could see that one of the brothers was struck by lightning. Manuel Sanchez, Supervisor, had previously called Juan Zermeño, Excavator Operator, and told him to cease work due to the storm. M. Barcenas called Zermeño on his cellphone to inform him of the accident. Sanchez went to pick up Zermeño and Zermeño informed Sanchez that a J. Barcenas had been struck by lightning. Sanchez drove to the accident scene and placed J. Barcenas into his truck. Sanchez then drove to the canopy where Rodriguez attempted cardiopulmonary resuscitation on the victim but his efforts were unsuccessful. Rodriguez instructed Jennifer Manuel, Logistics Coordinator, to notify first responders and the Palo Pinto County Police Department. Both parties arrived approximately 15 minutes later and their attempts to revive the victim were also unsuccessful. The police contacted Judge Charlie L Hodgkins Jr., Palo Pinto County Justice of the Peace, who pronounced the victim dead at the mine at 11:48 a.m. The death certificate states the manner of death was accidental, and the immediate cause of death was a direct lightning strike to the body.

INVESTIGATION OF ACCIDENT

On August 27, 2019, at 12:01 p.m., Judge Hodgkins called Brett Barrick, Assistant District Manager, about a fatal lightning strike. At 12:06 p.m., Jennifer Manuel notified the Department of Labor National Contact Center of the accident. Barrick dispatched Robert Dreyer, Mine Safety and Health Specialist, to secure the scene and to investigate the accident.

Dreyer arrived on site at 3:00 p.m., and issued an order under section 103(k) of the Mine Act to secure the accident scene and ensure the safety of miners. Dreyer conducted a physical investigation of the accident site, interviewed miners, and reviewed conditions relevant to the accident. MSHA conducted the investigation with the assistance of mine management and miners. See Appendix A for a list of persons participating in the investigation.

DISCUSSION

Location of the Accident

The accident occurred in the middle of a flat, open quarry area.

Weather

On the evening of August 26, 2019, the National Weather Service (NWS) in Fort Worth issued a hazardous weather outlook for North and Central Texas, which includes Palo Pinto County. Specifically, The NWS reported that a storm in Oklahoma would move across the Red River and affect areas north of Interstate 20 (Palo Pinto County is located north of and along the Interstate). The hazardous weather report also noted that a few strong to severe storms with damaging downbursts, high winds, small hail, frequent lightning, and localized heavy rainfall would be possible.

On the morning of August 27, 2019, the NWS issued an updated weather outlook which indicated that thunderstorms were likely that day, especially near and north of a line drawn from Cisco to Hillsboro to Athens. The mine is approximately 10 to 15 miles north of this line.

Chargeability Review Committee

When, initially, a miner's death is not conclusively determined to be chargeable to the mine operator, MSHA submits the facts of the case, including background and supporting information, to the MSHA Chargeability Review Committee (Committee) for a decision. MSHA's rules for injury and illness reporting define an "occupational injury," in part, as "any injury to a miner which occurs at a mine...which results in death." 30 C.F.R. § 50.2(e). MSHA's Part 50 Compliance Guide clarifies that occupational injuries can be caused by single, instantaneous events in the workplace environment, and an injury to a miner struck by lightning is a reportable injury if the miner is on mine property when struck. Based on information obtained during the investigation, the Committee concluded that Mr. J. Barcenás' death is chargeable to the mine operator because the victim's exposure to the risk of lightning injury was related to conditions at the mine site.

Training and Experience

Premium Sandstone Quarry employed J. Barcenás for six days where he received new miner training. Prior to the July 2019 accident, the mine operator instructed the victim, and others onsite, to seek shelter in the event of visible rain, lightning, or storms.

ROOT CAUSE

The accident investigation team conducted a root cause analysis to identify the underlying cause of the accident and fatality. The team identified the following root causes, and the mine operator implemented the corresponding corrective actions to prevent a recurrence.

Root Cause: The mine operator did not have an adequate early warning system in place to ensure the safety of miners in the event of sudden changes in weather at the mine.

Corrective Action: The mine operator developed new written procedures for miners on how to monitor, identify and evaluate, in a timely manner, the onset of any severe weather event that could adversely impact the site and cause an unacceptable level of risk. The mine operator trained all miners at the mine in the updated procedures.

CONCLUSION

Jose Manuel Barcenas, a 46-year-old rock/chopper with six days of experience at this mine, died on August 27, 2019, from a lightning strike that occurred because he was not instructed to take shelter in a timely manner. The Chargeability Committee concluded that Mr. Jose Manuel Barcenas' death is chargeable to the mine operator because the victim's exposure to the risk of lightning injury was related to conditions at the mine site.

Approved: _____

Date: _____

William D. O'Dell
Dallas District Manager

ENFORCEMENT ACTIONS

A Section 103 (k) Order No. 8861166 was issued to Premium Sandstone, LLC, ID No. 41-04918 on August 27, 2019. A fatal lighting strike occurred at this site on 8/27/2019. This order is issued to ensure the safety of all persons on site\ and it prohibits access or alteration to the area delineated with caution tape during the MSHA visit. The mine operator was reminded of their continuing obligation to preserve the scene and any evidence or information that may aid in the investigation. Entry to the 103 (k) Order area was prohibited without prior approval from an authorized representative

APPENDIX A
Persons Participating in the Investigation

Premium Sandstone LLC

Miguel Angel Barcenas	Splitter/Chopper
Glen Blankenship	Safety
Robert Deanda	Member
Roland Feuilly	Equipment Manager
Jennifer Manuel	Logistics Coordinator
Martin Rodriguez	Supervisory Operator
Manuel Sanchez.....	Supervisor

Mine Safety and Health Administration

Robert Dreyer	Mine Safety and Health Specialist
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