

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Facility
(Cement)

Fatal Powered Haulage Accident
February 22, 2025

Elite Refractory, LLC (B8225)
Waxahachie, Texas

at

GCC Dacotah Inc
GCC Dacotah Inc
Rapid City, Pennington County, South Dakota
ID No. 39-00022

Accident Investigators

Lee Hughes
Supervisory Special Investigator

Danny Cooper
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Denver District
1 Denver Federal Center, Bldg. 53
Denver, Colorado 80225
Nickolas Gutierrez, District Manager

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OVERVIEW

On February 22, 2025, at approximately 2:00 a.m., Angel Gustavo Perez-Perez, a 28-year-old contract miner for Elite Refractory, LLC (Elite), with approximately 17 weeks of mining experience, was fatally injured when the bridge providing access into the kiln shifted, causing the skid steer loader he was operating to fall backward into the cooler chute.

The accident occurred because: 1) the mine operator and contractor did not provide safe access to the inside of the kiln, and 2) the mine operator did not properly train miners to assemble and secure the ramp/bridge assembly for kiln access.

GENERAL INFORMATION

GCC Dacotah Inc (GCC) owns and operates the GCC Dacotah Inc mine, a cement facility located in Rapid City, Pennington County, South Dakota. The mine employs 136 miners and operates two 12-hour shifts per day, seven days per week. The mine operator drills and blasts limestone in an open pit and transports the material by truck to the processing facilities, where the material is crushed and mixed with other materials, fed into a rotary kiln (kiln), and processed into cement. The finished cement is then sold into commerce.

The principal management officials at the GCC Dacotah Inc mine at the time of the accident were:

Ramses Maldonado

Plant Manager

Heidi Smith
David Schumacher

Safety Manager
Production Manager

The principal management official for Elite at the time of the accident was:

Kyle Burley

Superintendent

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on January 22, 2025. The 2024 non-fatal days lost incident rate for the GCC Dacotah Inc mine was 0.75 compared to the national average of 1.5 for mines of this type.

DESCRIPTION OF THE ACCIDENT

According to interviews, at approximately 7:00 a.m., on February 20, 2025, Clifford Metzger Jr., Control Room Leader, asked Brandon Haslip, Control Room Operator, to take Jason Perry, Production Utility; Collin Murray, Utility; and Drew Anderson, Production Utility; to prepare the kiln for the rebricking work Elite was contracted to perform. This included opening the kiln doors, removing the burner pipe, and installing the ramp, bridge, and pedestal for the bridge assembly (see Appendix A), which provides access from the burner floor, across the cooler chute, and into the kiln (see Appendix B).

The set-up for the rebricking was completed at approximately 3:00 p.m. David Schumacher, Production Manager; and Kyle Burley, Superintendent for Elite; inspected the kiln for the upcoming rebrick. The rebrick was originally planned to stop at four feet into the kiln, but after inspecting the inside of the kiln, the job was extended to 15 feet into the kiln from the outside edge.

On February 21, 2025, at approximately 9:00 p.m., Perez-Perez; Burley; and Gerardo Anaya-Ramirez, Brick Mason for Elite, arrived at the mine site. Burley assigned Perez-Perez to operate the Kubota SSV75 skid steer loader (see Appendix C), to remove waste brick from the kiln while Anaya-Ramirez assisted when needed. Burley operated the Brokk 170 (Brokk), a remote controlled, electric/hydraulic demolition machine.

At approximately 10:00 p.m., Burley took the Brokk into the kiln to begin demolition of the brick. Burley trammed the Brokk to the 15-foot mark and began removing the brick, backing the Brokk out as he worked. After Burley had exited the kiln with the Brokk, Burley, Anaya-Ramirez and Perez-Perez attempted to raise the bridge to rotate the kiln. However, too many bricks were at the edge of the bridge, which weighed down the bridge and prevented them from raising it. On the first trip, Perez-Perez drove the skid steer loader into the kiln to push the brick away from the edge of the bridge. While Perez-Perez pushed the brick farther into the kiln, Anaya-Ramirez observed that the movement of the skid steer loader caused the bridge assembly to move back, inadvertently creating an approximately three-inch gap.

Anaya-Ramirez raised the bridge assembly and at 1:02 a.m., Robert Clausen, Control Room Operator, rotated the kiln 180 degrees. Anaya-Ramirez lowered the bridge back onto the kiln,

which closed the three-inch gap, while Burley directed Perez-Perez to push on the ramp with the skid steer loader. Burley stated that the ramp moved approximately two inches back against the concrete barrier between the burner floor and the cooler chute. Burley then took the Brokk back into the kiln to demolish the last of the brick that was exposed when the kiln was rotated.

Burley finished demolishing the remaining brick and then left the plant to go back to his hotel. Perez-Perez continued operating the skid-steer loader to remove the remaining brick from the kiln. According to witness statements, Perez-Perez completed seven trips into the kiln and was in the process of backing out of the kiln on his eighth trip when the bridge and skid steer loader fell 18 feet into the cooler chute.

Anaya-Ramirez saw the accident and ran to the control room to get help. Steven Smart, Control Room Leader, was in his office located next to the control room, when Anaya-Ramirez entered. Smart followed Anaya-Ramirez to the burner floor, where he saw the bridge and skid steer loader down in the cooler chute.

At approximately 2:00 a.m., Smart called Jacob Taylor, Control Room Operator, over the two-way radio and told him to call 911. Smart then contacted Clausen and told him to call Schumacher and inform him there had been an accident. Rapid City Fire Department arrived at the mine at 2:19 a.m. The fire department formulated a safe access plan for rescue efforts. At 3:45 a.m., rescuers reached Perez-Perez, but he was found unresponsive. Perez-Perez was removed from the skid steer at 4:12 a.m. and pronounced dead at 4:13 a.m. by Garrett Monroe, Fire Fighter/Advanced Emergency Medical Technician.

INVESTIGATION OF THE ACCIDENT

On February 22, 2025, at 3:18 a.m., Heidi Smith, the Safety Manager for GCC, called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Lee Hughes, Supervisory Special Investigator. Hughes contacted Nickolas Gutierrez, District Manager, and Michael Tefertiller, Staff Assistant. Gutierrez assigned Hughes as the lead investigator and Danny Cooper, Mine Safety and Health Inspector, to assist Hughes.

On February 22, 2025, at 5:00 a.m., Cooper arrived at the mine and issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and preservation of evidence. Cooper secured the area and gathered preliminary information. On February 22, 2025, at 2:00 p.m., Hughes arrived at the mine. MSHA's accident investigation team conducted an examination of the accident scene; interviewed miners, mine management, contractors, and contractor management; and reviewed conditions and work practices relevant to the accident. Representatives from the United Steel Workers of America, Local 7833, participated in the investigative process. See Appendix D for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the discharge/burner end of the kiln, in the cooler chute (see Appendix E).

Equipment Involved

The Bricking Solutions Kiln Access Ramp consists of a bridge section, ramp section, pedestal and nose piece with all pieces fabricated from 6061-T6 aluminum. The ramp was purchased in 2018, and the ramp came with an installation manual. The manual contains information on assembly, installation, and inspection of the ramp and bridge assembly. Investigators determined the pedestal was not properly secured against movement; a requirement outlined in the manufacturer's installation manual. To prepare the kiln for rebricking, the mine operator bolted the bridge and ramp to the pedestal, but not to the floor of the kiln structure as required by the manual. The mine operator also left the nose piece off the unit during assembly. Investigators determined this contributed to the accident. This was further supported by witness statements verifying that the ramp/bridge assembly shifted prior to the accident.

Investigators determined it was a common practice for the mine operator to install the bridge and ramp for contractor use. Based on interviews, investigators determined that Haslip, Perry, Murray, and Anderson installed the bridge and ramp but were either not aware of the installation manual or only had vague knowledge of its existence.

The skid steer loader was a model Kubota SSV75, rented by GCC from Rushmore Equipment, LLC. Clay Sabrowski, Mechanic for Rushmore Equipment, LCC performed a complete inspection of the skid steer loader and did not find any deficiencies.

Examinations

Burley conducted a workplace examination of the work area but did not include the ramp, bridge, pedestal and nose piece. Investigators determined that the mine operator had not reviewed the contractor's process for conducting workplace examinations. Burley stated that he conducted a workplace examination before starting work, but he did not inspect the bridge assembly because he believed it was GCC management responsibility to install it and ensure it was ready for use. Elite did not conduct a workplace examination. The bridge and access ramp installation manual requires the installer to examine the bridge assembly. An adequate workplace examination would have revealed the missing nose piece and lack of floor bolts. The lack of adequate examinations was a factor that contributed to the accident.

Training and Experience

Investigators determined Perez-Perez had approximately six years of experience working as a brick mason in Mexico. Perez-Perez had approximately 17 weeks of mining experience in the United States. Perez-Perez received 24 hours of New Miner Training on October 24 and 25, 2025. Perez-Perez received site-specific hazard awareness training from the mine operator upon his arrival at the mine on February 20, 2025.

Burley had eight hours of annual refresher training on December 4, 2024, which included training on workplace exams. Anaya-Ramirez received eight hours of annual refresher training on August 8, 2024.

The investigators determined that during previous deployments of the ramp and bridge assembly, it was not properly secured to the floor in accordance with the manufacturer's installation manual. The mine operator also did not develop or provide training for the installation of the

bridge assembly consistent with the guidelines set forth in the manufacturer's installation manual. This contributed to the accident.

ROOT CAUSE ANALYSIS

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

1. Root Cause: The mine operator and contractor did not provide safe access to the inside of the kiln.

Corrective Action: The mine operator and the contractor developed a new standard operating procedure (SOP) to ensure that the new bridge and ramp assembly will be secured according to manufacturer instructions, and miners were trained on the new SOP.

2. Root Cause: The mine operator did not properly train miners to assemble and secure the ramp/bridge assembly for kiln access.

Corrective Action: The mine operator has developed a new task training procedure which includes assembly and securing the new assembly to the burner floor. Miners were trained on the new procedure.

CONCLUSION

On February 22, 2025, at approximately 2:00 a.m., Angel Gustavo Perez-Perez, a 28-year-old contract miner for Elite Refractory, LLC (Elite), with approximately 17 weeks of mining experience, was fatally injured when the bridge providing access into the kiln shifted, causing the skid steer loader he was operating to fall backward into the cooler chute.

The accident occurred because: 1) the mine operator and contractor did not provide safe access to the inside of the kiln, and 2) the mine operator did not properly train miners to assemble and secure the ramp/bridge assembly for kiln access.

Approved By:

Nickolas Gutierrez
District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to GCC Dacotah Inc.

A fatal accident occurred on February 22, 2025, at approximately 2:00 a.m. This order is being issued under the authority of the Federal Mine Safety and Health Act of 1977, under Section 103(k) to insure the safety of all persons at the mine, and requires the operator to obtain the approval of an authorized representative of MSHA of any plan to recover any person in the mine or to recover the mine or affected area. This order prohibits any activity in the affected area. The operator is reminded of the obligation to preserve all evidence that would aid in investigating the cause or causes of the accident in accordance with 30 CFR 50.12.

2. A 104(d)(1) citation was issued to GCC Dacotah Inc for a violation of 30 CFR 56.11001.

On February 22, 2025, at approximately 2:00 a.m., a fatal accident occurred when the ramp and bridge assembly shifted and collapsed into the cooler chute as a contractor miner operating a skid steer loader traveled over it, landing approximately 18 feet below. The ramp and bridge assembly installed by the mine operator did not completely secure the pedestal nor was the nose section installed at the end of the bridge in accordance with manufacturers' installation instructions. The mine operator did not provide safe access to the inside of the kiln for the contracted work. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. This violation is an unwarrantable failure to comply with a mandatory standard.

3. A 104(d)(1) order was issued to GCC Dacotah Inc for a violation of 30 CFR 46.7(a).

On February 22, 2025, at approximately 2:00 a.m., a fatal accident occurred when the ramp and bridge assembly that a contract miner was operating a skid steer loader on shifted and collapsed into the cooler chute, landing approximately 18 feet below. The ramp and bridge assembly installed by the mine operator did not completely secure the pedestal nor was the nose section installed at the end of the bridge in accordance with manufacturers' installation instructions. The miners assigned to the task had not received adequate task training specific to installing this bridge assembly, including the safe work procedures of performing the bridge assembly in accordance with the manufacturer's installation manual. The mine operator did not ensure the miner received the required task training. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. This violation is an unwarrantable failure to comply with a mandatory standard.

4. A 104(a) citation was issued to Elite Refractory, LLC for a violation of 30 CFR 56.11001.

On February 22, 2025, at approximately 2:00 a.m., a fatal accident occurred when the ramp and bridge assembly shifted and collapsed into the cooler chute as a contractor miner operating a skid steer loader traveled over it, landing approximately 18 feet below. The ramp and bridge assembly installed by the mine operator did not completely secure the pedestal nor was the nose section installed at the end of the bridge in accordance with manufacturers' installation instructions. The contractor did not provide safe access to the inside of the kiln for the contracted work.

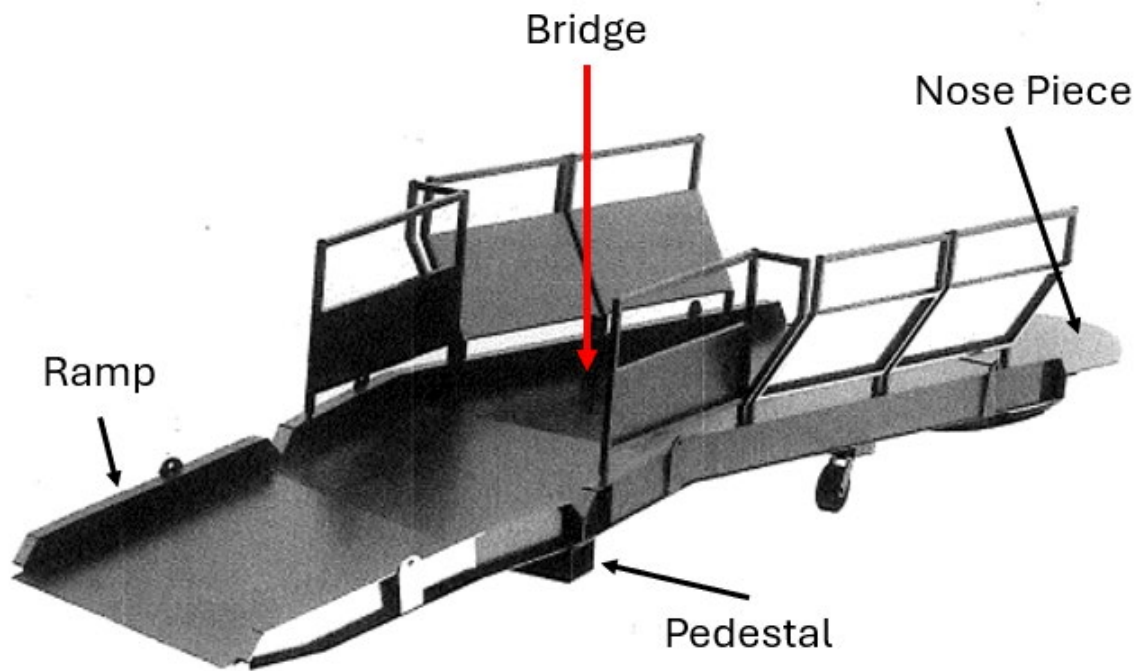
5. A 104(d)(1) order was issued to GCC Dacotah Inc for a violation of 30 CFR 56.18002(a).

On February 22, 2025, at approximately 2:00 a.m., a fatal accident occurred when the ramp and bridge assembly shifted and collapsed into the cooler chute as a contractor miner operating a skid steer loader traveled over it, landing approximately 18 feet below. The ramp and bridge assembly were installed by the operator for use by the contractor. The mine operator did not conduct an examination of the ramp and bridge assembly after installation, which should have identified that the nose section was not attached or that the pedestal was not secured. The nose section is intended to facilitate a smooth transition for mobile equipment from the bridge into the kiln. The missing nose section adversely affected the safety and health of the contract miner utilizing the bridge assembly. This violation is an unwarrantable failure to comply with a mandatory standard.

6. A 104(d)(1) citation was issued to Elite Refractory, LLC for a violation of 30 CFR 56.18002(a).

On February 22, 2025, at approximately 2:00 a.m., a fatal accident occurred when the ramp and bridge assembly shifted and collapsed into the cooler chute as a contractor miner operating a skid steer loader traveled over it, landing approximately 18 feet below. Before miners began work, the contractor's examination of the ramp and bridge assembly did not identify that the nose section was not attached. The nose section is intended to facilitate a smooth transition of mobile equipment from the bridge into the kiln. The missing nose section adversely affected the safety and health of the contractor miner utilizing the bridge assembly. This violation is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Bridge Assembly Drawing



APPENDIX B – Kiln Entrance



APPENDIX C – Kubota Skid Steer Loader



APPENDIX D – Persons Participating in the Investigation

GCC Dacotah Inc

Ramses Maldonado	Plant Manager
David Schumacher	Production Manager
James Walters	Maintenance Manager
Heidi Smith	Safety Manager
Chad Blodgett	Senior Control Room Leader
Troy Horton	Control Room Leader
Michael Kelley	Control Room Leader
Clifford Metzger Jr.	Control Room Leader
Steven Smart	Control Room Leader
Robert Clausen	Control Room Operator
Brandon Haslip	Control Room Operator
Jacob Taylor	Control Room Operator
Collin Murray	Utility
Drew Anderson	Production Utility
Jason Perry	Production Utility
Austin Wainright	Maintenance Repairman

United Steel Workers of America Local 7833

Theodore Wilson	Union President
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Elite Refractory, LLC

Eddie Allison	Vice President of Safety
Kyle Burley	Superintendent
Gerardo Anaya-Ramirez	Brick Mason

Mine Safety and Health Administration

Lee Hughes	Supervisory Special Investigator
Danny Cooper	Mine Safety and Health Inspector

APPENDIX E – Cooler Chute with Fallen Skid Steer and Bridge

