FAI-6909931-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Dimensional Limestone Mining)

Fatal Handling Material Accident
November 17, 2023

Eden Facility
Eden Stone Co., LLC
Eden, Fond Du Lac County, Wisconsin
ID No. 47-00044

Accident Investigators

Randall Jamison
Mine Safety and Health Inspector

Thomas Heft
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Duluth District
515 W. 1st Street, #323
Duluth, MN 55802
Christopher Hensler, District Manager

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OVERVIEW

On November 17, 2023, at 3:55 p.m., Modesto Montes, a 50 year-old miner with over four years of mining experience, died when the leg support structure of a stone saw stand that he was assisting to unload, shifted, and struck him.

The accident occurred because the mine operator did not: 1) ensure that the leg support structure was unloaded in a manner that did not create a hazard to miners from falling or shifting, and 2) provide new task training for unloading the leg support structure from a nontypical delivery method.

GENERAL INFORMATION

Eden Stone Co., LLC owns and operates the Eden Facility, a surface dimensional limestone mine located in Eden, Fond Du Lac County, Wisconsin. The Eden Facility employs 69 miners and operates one nine-hour shift, five days per week. The mine drills and blasts to fracture the limestone, and then transports slabs of limestone to the Splitter Shop for sizing. After sizing, the mine operator transports the slabs of limestone to the saw shop for finishing prior to placing it into commerce.

The principal management officials at the Eden Facility at the time of the accident were:

Paula Hernandez	Human Resource Manager
Miguel Hernandez	Supervisor

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on August 23, 2023. The 2022 non-fatal days lost incident rate for the Eden Facility was zero, compared to the national average of 1.17 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On November 17, 2023, at 6:11 a.m., Montes began his shift and performed his regular duties of maintenance and checking the water treatment system in the Thin Veneer Shop. According to interviews, at 10:00 a.m., Hosea Israel, Truck Driver for Skyline Trucking, arrived on-site with a cargo trailer. The stand assembly for the mine operator's new stone saw was in the trailer, including the two identical leg support structures, along with other saw components. Andrew Thull, Dispatcher, instructed Israel to back up to the loading dock by the Splitter Shop. Miguel Hernandez, Supervisor, instructed Montes and Michael Freund, Loader Operator, to unload the cargo trailer.

Montes and Freund developed a plan to unload the cargo trailer. At approximately 11:30 a.m., Montes and Freund started unloading the smaller items from pallets in the back of the cargo trailer. Once the crew removed the smaller items, Montes and Freund planned to unload the two 3,800-pound leg support structures, one at a time, by attaching a nylon sling and chains to them and, using a forklift, pulling them toward the back and out of the cargo trailer. Freund staged a loader nearby to move the leg support structures away from the loading area after the crew had removed them from the cargo trailer. According to interviews, there was an approximately four-inch difference between the back of the cargo trailer and the loading dock with the weight of the structures inside the cargo trailer. Montes placed four-inch by three-inch wood planks on the loading dock to help with the transition from the cargo trailer to the loading dock so the front-end loader could then pick up the material from the cargo trailer.

At approximately 2:00 p.m., M. Hernandez and Alejandro Cepeda, Production Support, came to help remove the leg support structures from the cargo trailer. M. Hernandez instructed the crew to work slowly as they removed the first leg support structure, to see how it would react. While M. Hernandez began pulling the front leg of the first leg support structure out of the cargo trailer with the forklift, Freund and Montes stood on the loading dock, on either side of the cargo trailer's opening. Freund stood on the south side, while Montes stood on the north side, between the leg support structure and a concrete block. While M. Hernandez operated the forklift, Montes gave him directions to ensure that the steel plates on the bottom of the front leg of the leg support structure cleared the concrete block. M. Hernandez had to pull the leg support structure out at an angle to avoid contacting the concrete block. Cepeda stood at the back of the cargo trailer using a pole to hold up the cargo trailer's canvas top. The crew removed the front leg of the leg support structure from the cargo trailer without an issue. M. Hernandez continued by pulling the back leg of the leg support structure out of the cargo trailer while Montes and Freund

continued to stand next to it, on either side. At 3:55 p.m., the back leg of the leg support structure came out of the cargo trailer, shifted, and fell towards the north side onto Montes.

M. Hernandez used the forklift to lift the leg support structure off Montes. M. Hernandez and Cepeda found Montes unresponsive. According to interviews, they started cardiopulmonary resuscitation, placed an automated external defibrillator on Montes, and followed the instructions. At 3:58 p.m., Freund called 911. Emergency Medical Services arrived at 4:05 p.m. and took over lifesaving efforts. Andrea Fenrich, Investigator for the Fond Du Lac County Medical Examiner, pronounced Montes dead at 5:24 p.m.

INVESTIGATION OF THE ACCIDENT

On November 17, 2023, at 5:10 p.m., David Anderson, Safety Consultant, called the Department of Labor National Contact Center (DOLNCC) to report a fatal accident. The DOLNCC contacted William Soderlind, Supervisory Mine Safety and Health Inspector, who contacted Christopher Hensler, District Manager. Hensler contacted James Kirk, Supervisory Mine Safety and Health Inspector, who sent Randall Jamison, Mine Safety and Health Inspector, and Thomas Heft, Mine Safety and Health Inspector, to the mine. Hensler assigned Jamison as the lead accident investigator and Heft to assist in the accident investigation.

On November 18, 2023, at 8:49 a.m., Jamison arrived at the mine, began work to secure the area, 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. Heft arrived on November 18, 2023, at 9:17 a.m. MSHA's accident investigation team conducted an examination of the accident scene, interviewed miners and mine management, and reviewed conditions and work procedures relevant to the accident. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred at the loading dock at the Splitter Shop (see Appendix B).

Weather

The weather at the time of the accident was 34 degrees Fahrenheit with light winds. Investigators determined that the weather did not contribute to the accident.

Equipment Involved

The leg support structure involved in the accident was one of the two Burkhardt Loffler Model Number MSR2 leg support structures for the new stone saw. The leg support structures were made of galvanized steel. Each leg support structure was 15 feet and three inches wide, by eight feet and seven inches tall, and weighed 3,800 pounds. Each leg support structure had a front and back leg, and each leg had a base plate. The base plate for the front leg was 31½ inches wide by 39¼ inches long. The base plate for the back leg was 17¾ inches wide by 39¼ inches long.

The cargo trailer had a canvas top with support bars running across its width. The canvas top allowed for the removal of the cargo trailer's contents from the top using a crane (see Appendix C). There was no crane on-site at the time of the accident.

There was a concrete block on the north side of the loading dock. To avoid hitting the block, M. Hernandez continued to pull the leg support structure out of the cargo trailer at an angle instead of straight (see Appendix D). Montes, Freund, and Cepeda were in the fall zone (fall radius) of the leg support as M. Hernandez pulled it out with a forklift. There was nothing to support the leg support structure from falling as it came out of the cargo trailer. The mine operator did not ensure that the leg support structure was unloaded in a manner that did not create a hazard to miners from falling or shifting. Investigators determined this contributed to the accident.

Examinations

M. Hernandez performed the workplace examination at the Splitter Shop on the day of the accident. Investigators determined that the examination was adequate and did not contribute to the accident. The mine operator completed the examination of the unloading area, as observations show that the crew had taken steps to identify and mitigate the hazards they recognized.

Training and Experience

Montes had over four years of mining experience, all at the Eden Facility. Montes received New Miner and Annual Refresher training in accordance with MSHA Part 46 training regulations. The mine operator could not provide task training records for any of Montes's tasks, including unloading equipment at the loading dock.

David Bothe, Vice President, and Joshua Cadman, Health, Safety & Environmental Manager, stated that they were unaware that the truck with the cargo trailer was arriving on that day.

According to interviews with the crew involved in unloading the cargo trailer, this was the first time that the mine received a delivery of large equipment in a cargo trailer. Therefore, they had never unloaded equipment delivered in this manner. Normally, the mine received equipment deliveries on a flatbed trailer and miners unloaded them using a forklift. The mine operator did not provide new task training for unloading the leg support structures from a nontypical delivery method. Investigators determined that this contributed to the accident. The safe way to unload this delivery would have been to use a crane.

ROOT CAUSE ANALYSIS

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

1. Root Cause: The mine operator did not ensure that the leg support structure was unloaded in a manner that did not create a hazard to miners from falling or shifting.

Corrective Action: The mine operator developed and implemented a new written procedure to unload any nontypical delivery that has arrived or been scheduled to arrive. A member of management will determine the best method to unload materials when a supplier delivers a nontypical load. Additionally, the mine operator posted safety posters in break areas and around the facility where miners will see them (see Appendix E). The mine operator trained all miners on the new written procedure.

2. Root Cause: The mine operator did not provide new task training for unloading the leg support from a nontypical delivery method.

   Corrective Action: The mine operator trained all miners on the new written procedures in accordance with 30 CFR 46.7(a), and the mine operator documented this training in accordance with 30 CFR 46.9.

CONCLUSION

On November 17, 2023, at 3:55 p.m., Modesto Montes, a 50 year-old miner with over four years of mining experience, died when the leg support structure of a stone saw stand that he was assisting to unload, shifted, and struck him.

The accident occurred because the mine operator did not: 1) ensure that the leg support structure was unloaded in a manner that did not create a hazard to miners from falling or shifting, and 2) provide new task training for unloading the leg support structure from a nontypical delivery method.

Approved By:

_____ _____

Christopher Hensler Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to Eden Stone Co., LLC.

   A fatal accident occurred on June 17, 2023, at 3:55 p.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(a) citation was issued to Eden Stone Co., LLC for a violation of CFR 56.9201.

   On November 17, 2023, a miner died when the leg support structure of a stone saw stand that he was assisting to unload, shifted, and struck him. The crew used a forklift and attached nylon straps to the base of the leg support structure to pull it out of the cargo trailer. The mine operator did not ensure that the leg support was unloaded in a manner that did not create a hazard to miners from falling or shifting.

3. A 104(a) citation was issued to Eden Stone Co., LLC for a violation of CFR 46.7(a).

   On November 17, 2023, a miner died when the leg support structure of a stone saw stand that he was assisting to unload, shifted and struck him. This was the first time that the miners unloaded a cargo trailer with equipment that was loaded in this manner. The mine operator did not provide the new task training for unloading the leg support from a nontypical delivery method. The Federal Mine Safety and Health Act of 1977 declares an untrained miner is a hazard to himself and others.

APPENDIX A – Persons Participating in the Investigation

Eden Stone Co., LLC

David Bothe	Vice President
Joshua Cadman	Health, Safety & Environmental Manager
Paula Hernandez	Human Resource Manager
Miguel Hernandez	Supervisor
Michael Freund	Loader Operator
Alejandro Cepeda	Production Support
Andrew Thull	Dispatcher

Skyline Trucking

Hosea Israel	Truck Driver

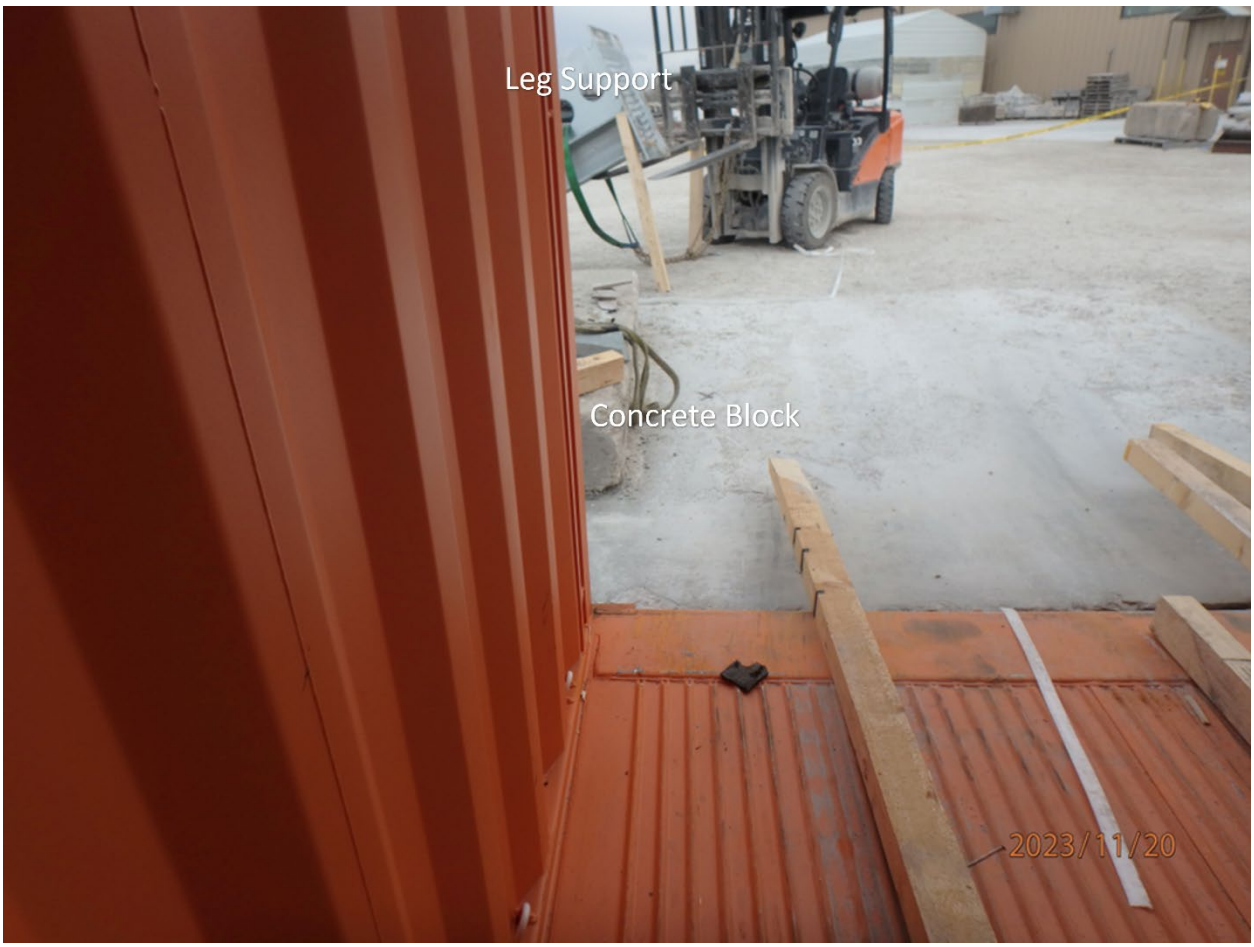
Mine Safety and Health Administration

Thomas Heft	Mine Safety and Health Inspector
Randall Jamison	Mine Safety and Health Inspector

APPENDIX B – Loading Dock at Splitter Shop

APPENDIX C – Canvas Top of Cargo Trailer

APPENDIX D – Concrete Block at Loading Dock in the Way of the Leg Support



Safety Alert

This guidance is a step to ask all employees involved in the use of lifting equipment or material handling to remain alert to what can go wrong, re-emphasize safe work practices, stop when unexpected conditions occur to re-verify it is safe to proceed.

The acronym P.I.C.K. has been coined to help keep these principles in mind:

- **P – Plan - what is the plan to complete the move safely – do we need safety involved? do we need additional task training?**
- **I - Inspect – completed lifting devise and area inspections**
- **C - Check the environment - is there anything in the area that needs to be cleared or barricaded? are all people clear of the danger zone?**
- **K - Keep looking and listening – always pay attention to the lift – keep the load as low as possible - be aware of changing conditions or conditions not anticipated in the lift planning – monitor to ensure communications are working as designed - verify that all assistants are in designated safe working locations - stop the movement of the load upon hearing any stop command and clarify concern and whether it is safe to proceed.**