FAI-6923436-1

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Crushed & Broken Granite)

Fatal Confined Space Accident
October 7, 2022

Portable 11
J R Vinagro Corporation
Tiverton, Newport County, Rhode Island
ID No. 37-00243

Accident Investigators

Arthur Wall
Mine Safety and Health Inspector

Christian Waite
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Warrendale District
178 Thorn Hill Road, Suite 100
Warrendale, PA 15086
Peter Montali, District Manager

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OVERVIEW

On October 7, 2022, at approximately 8:30 a.m., Selvin Ovando-Gamez, a 29 year-old laborer with over four years of mining experience, died when he entered an air separator and was engulfed by material.

The accident occurred because J R Vinagro did not: 1) ensure the laborer wore a safety belt and line and a person, similarly equipped, was available to tend the safety line and that the supply and discharge equipment was locked out; and 2) provide task training for clearing blockages from the air separator.

GENERAL INFORMATION

J R Vinagro owns and operates the Portable 11 plant. At the time of the accident, the portable plant was located at Tiverton Materials' Tiverton Materials mine located in Tiverton, Newport County, Rhode Island. The Tiverton Materials mine is a quarry where granite is drilled, blasted, crushed, screened, and separated. The Portable 11 plant employs ten miners and operates one shift per day, five days per week.

The principal management officials at the Portable 11 plant at the time of the accident were:

Michael Santilli	Crushing Operations
Paul Askew	Safety Director
Ector Velasquez	Site Leadman

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on April 20, 2022. The 2021 non-fatal days lost incident rate for the Portable 11 plant was zero, compared to the national average of 0.9 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On October 7, 2022, at 7:00 a.m., Ovando-Gamez arrived at Tiverton Materials mine along with other members of the J R Vinagro crew to begin their shift. At approximately 8:00 a.m., the air separator became blocked with fine material. Based on interviews, Ovando-Gamez, Irvin Montufar, and Eduardo Alonzo, Laborers, unsuccessfully attempted to clear the blockage by striking the exterior of the cone at the bottom of the separator with hammers. Ovando-Gamez placed the power disconnect lever into the "off" position before he and Alonzo went to the top of the air separator. Ovando-Gamez pressed the emergency stop button and released the mechanical pin on top of the air separator. Montufar went to retrieve tools to assist with clearing the blockage and returned a short time later. As Montufar began climbing the ladder leading to the top of the air separator, Alonzo turned toward him to get the tools from him. Alonzo turned back toward Ovando-Gamez after retrieving the tools and discovered Ovando-Gamez was inside the air separator, fully engulfed by fine material, with only his hand visible.

Alonzo unsuccessfully attempted to pull Ovando-Gamez out of the fine material. Alonzo called for help over the radio. Walber Mota, Haul Truck Driver, heard the call for help and immediately went to the air separator. Upon arrival, Mota climbed to the top of the air separator and entered it to assist Alonzo in rescuing Ovando-Gamez.

Arcadio Carrascoza, Plant Operator, and Eli Estrada, Haul Truck Driver, gathered a cutting torch set and began cutting the bolts off the cone at the bottom of the separator. Other miners working the area, including Melvin Gamez, Excavator Operator, heard the call for help on the radio and immediately traveled to the separator. As the cone was removed, Ovando-Gamez fell out the bottom of the air separator. Gamez immediately began cardiopulmonary resuscitation (CPR) on Ovando-Gamez.

At 8:35 a.m., Mota called 911. Emergency Medical Services (EMS) arrived on scene at 8:49 a.m. and took over performing CPR. EMS transported Ovando-Gamez to St. Anne's Hospital in Fall River, Massachusetts, where he was pronounced dead at 9:23 a.m., by Samuel Goldman, M.D.

INVESTIGATION OF THE ACCIDENT

On October 7, 2022, at 9:13 a.m., Stephen Halajko, Scale Clerk for Tiverton Materials, called the MSHA's Portsmouth Field Office to report the accident and spoke to Andrew Bower, Supervisory Mine Safety and Health Inspector. At 9:18 a.m., Bower issued an order under the provisions of Section 103(j) of the Mine Act to ensure the safety of the miners and preservation of evidence. Bower sent Todd Graffam, Mine Safety and Health Inspector, to the mine. At 9:49 a.m., Halajko called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted Cody Sheldon, Supervisory Special Investigator, and informed him of the accident. Arthur Wall and Christian Waite, Mine Safety and Health Inspectors, were assigned to conduct the accident investigation.

At 1:36 p.m., Graffam arrived at the plant to secure the accident scene and modified the 103(j) order to a 103(k) order. At 4:10 p.m., Wall and Waite arrived at the plant to continue the investigation. MSHA's accident investigation team conducted an examination of the accident scene, interviewed miners and management, and reviewed conditions and work procedures relevant to the accident. Robert Bates and Jordan Rose, Electrical Engineers, arrived on October 24, 2022 and assisted with the investigation. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The Portable 11 plant is located on the east side of the Tiverton Materials mine's quarry. The accident occurred inside the plant's air separator (see Appendix B).

Weather

The weather at the time of the accident was 64 degrees Fahrenheit with mostly sunny skies and a wind speed of nine miles per hour. Investigators determined that weather did not contribute to the accident.

Equipment Involved

The air separator involved in the accident is a Fisher Industries Model 13FT Portable Air Separator and separates coarse material from fine material (see Appendices C and D). Material from the plant is conveyed on a belt to the top of the air separator where the coarse material drops out through an inner cone. A fan inside the air separator creates an updraft that carries the fine material to the outer cone. The air separator has been operating at the Tiverton Materials mine for the past four years.

Investigators found the access hatch on top of the air separator tied in the open position. Based on interviews, investigators concluded that Ovando-Gamez entered the air separator through the access hatch to clear the blockage. Investigators also found the emergency stop button mounted to the handrail around the top of the air separator pushed in and the disconnect switch shut off. Neither the air separator nor the supply and discharge controls were locked out prior to the accident. After the accident occurred, Kent Waterman, Electrician for J R Vinagro, locked and tagged out the disconnect at the main switchgear trailer.

According to interviews, the air separator became blocked with material at least two to three times per week. Miners entered the air separator to clear the blockage about once per shift. At other times, miners were able to clear the blockage by striking the exterior of the cone at the bottom of the separator with hammers. The air separator was equipped with an electromechanical vibrator to prevent material from becoming blocked. The factory installed vibrator motor was not functional due to an electrical malfunction. Investigators determined these defects existed prior to the accident. Investigators found areas where the mine operator previously installed two additional vibrators on the air separator, but the vibrators had been removed prior to the accident. According to interviews, the additional vibrators were removed because they did not function as intended.

Fall Protection

J R Vinagro provided multiple lanyards and fall harnesses available for use at the time of the accident. However, the fall protection was not utilized and had not been removed from the tool trailer. According to interviews, not wearing fall protection was a regular and reoccurring practice.

Training and Experience

Ovando-Gamez had over four years of mining experience as a laborer with J R Vinagro at various mining operations. Scott Chiccarello, Mine Safety and Health Training Specialist, examined the mine operator's training plan, including Ovando-Gamez's training records. Ovando-Gamez received eight hours of annual refresher training on January 5, 2022, in accordance with MSHA Part 46 training regulations. Ovando-Gamez did not receive task training on the air separator, including how to recognize causes of blockages and safely clear them, which contributed to the accident. Ovando-Gamez was also not trained in the use of fall protection.

Velasquez stated that the manufacturer provided task training to him (Velasquez) on how to operate the air separator when it was installed at Tiverton, approximately four years prior to the accident. This task training did not include instruction on how to clear blockages. According to interviews and training documentation, none of the other miners received task training and J R Vinagro did not have an established procedure for clearing blockages in the air separator.

Workplace Examinations

Carrascoza conducted a workplace examination of the portable plant at the start of the shift and did not document any hazards. Workplace examinations do not include checking equipment functionality. Therefore, the nonfunctional vibrator would not have been identified and recorded as a hazard in the workplace examination. Investigators determined that the workplace examination did not contribute to the accident.

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 J R Vinagro implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator did not ensure the laborer wore a safety belt and line and a person, similarly equipped, was available to tend the safety line and that the supply and discharge equipment was locked out.

   Corrective Action: The mine operator developed and implemented a new written procedure requiring: 1) miners to wear a safety belt and line, and have a person, similarly equipped, available to tend the safety line where there is a danger of falling, and 2) that supply, and discharge equipment is locked out before entering a confined space. The miner operator trained all miners on the procedure.

2. Root Cause: The mine operator did not provide task training for identifying causes of blockages and how to safely clear blockages.

   Corrective Action: The mine operator developed and implemented a new written procedure for safely clearing blockages. The mine operator trained all miners on the procedure.

CONCLUSION

On October 7, 2022, at approximately 8:30 a.m., Selvin Ovando-Gamez, a 29-year-old laborer with over four years of mining experience, died when he entered an air separator and was engulfed by material.

The accident occurred because J R Vinagro did not: 1) ensure the laborer wore a safety belt and line and a person, similarly equipped, was available to tend the safety line and that the supply and discharge equipment was locked out; and 2) provide task training for clearing blockages from the air separator.

Approved By:

_____ _____

Peter Montali — Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to J R Vinagro Corporation.

   A fatal accident occurred on October 7, 2022, at approximately 8:30 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) order was issued to J R Vinagro Corporation for a violation of 30 CFR 56.16002(c).

   On October 7, 2022, a fatal accident occurred at this mine when a laborer was engulfed by material inside of a Fisher Industries Model 13FT Air Separator. The laborer entered the air separator prior to the supply and discharge equipment being locked out. The laborer was not wearing a safety belt or harnesses equipped with a suitably fastened lifeline when he entered the air separator. The mine operator did not have a second person, similarly equipped, with a suitably fastened lifeline stationed near where a lifeline would have been fastened to constantly adjust or keep it tight as needed, with minimum slack. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by being aware that miners entered the air separator to clear blockages and not providing a safe procedure. This violation is an unwarrantable failure to comply with a mandatory standard.

3. A 104(d)(1) order was issued to J R Vinagro Corporation for a violation 30 CFR 46.7(a)

   On October 7, 2022, a fatal accident occurred at this mine when a laborer was engulfed by material inside of a Fisher Industries Model 13FT Air Separator. The mine operator did not provide task training for clearing blockages from the air separator. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by being aware of the material blockages occurring at least two to three times per week and that entering the air separator was a regular practice. This violation is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Persons Participating in the Investigation

J R Vinagro Corporation

Michael Santilli	Crushing Operations
Paul Askew	Safety Director
Ector Velasquez	Site Leadman
Kent Waterman	Electrician
Eli Estrada	Haul Truck Driver
Walber Mota	Haul Truck Driver
Arcadio Carrascoza	Plant Operator
Melvin Gamez	Excavator Operator
Eduardo Alonzo	Laborer
Irvin Montufar	Laborer

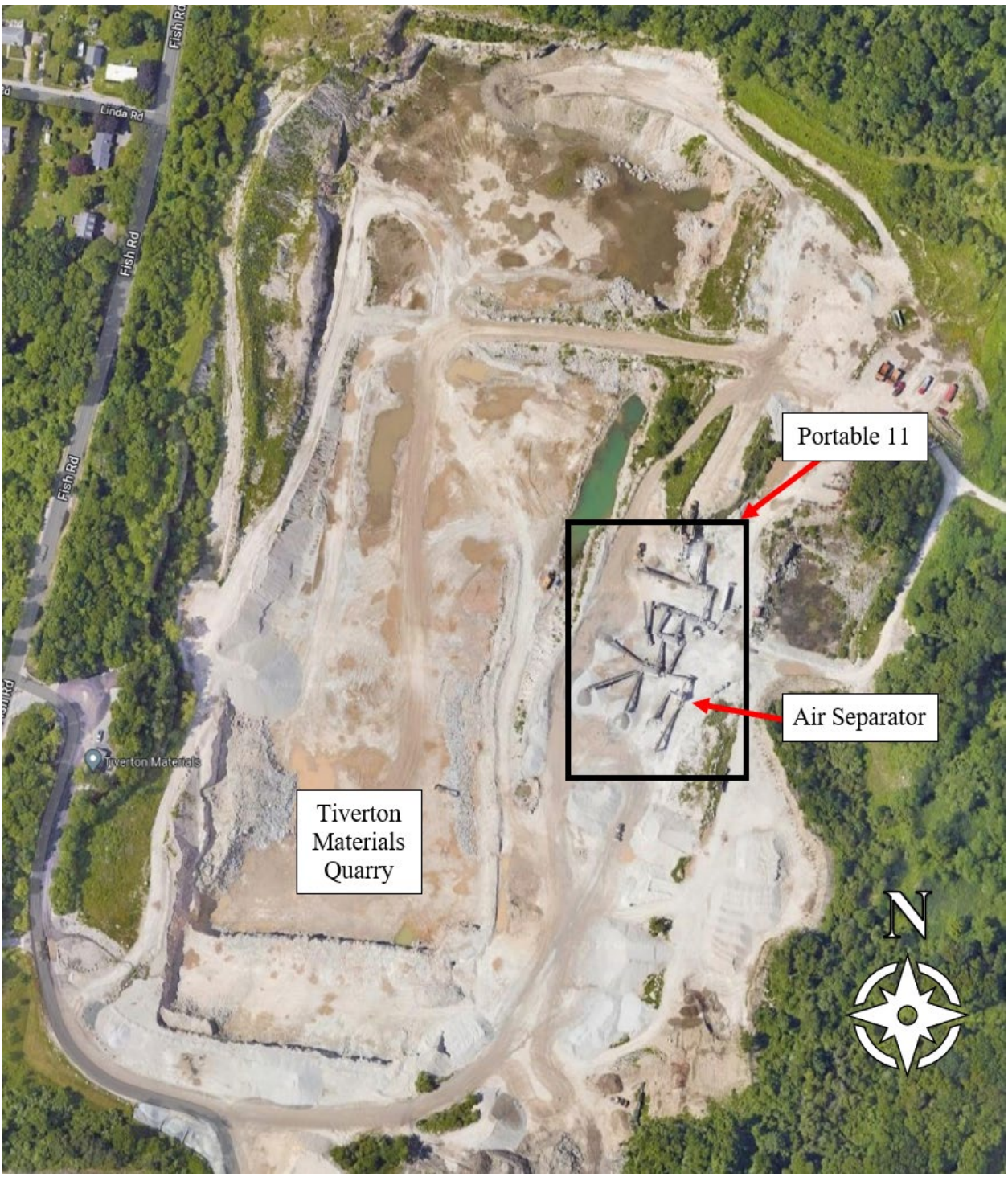
Tiverton Materials

Michael Trant	Sales Executive
Donald Bento	Loader Operator
Stephen Halajko	Scale Clerk

Mine Safety and Health Administration

Christian Waite	Mine Safety and Health Inspector
Arthur Wall	Mine Safety and Health Inspector
Todd Graffam	Mine Safety and Health Inspector
Scott Chiccarello	Mine Safety and Health Training Specialist
Robert Bates	Electrical Engineer, Technical Support
Jordan Rose	Electrical Engineer, Technical Support

APPENDIX B – Aerial View of Tiverton Materials Mine and the Portable 11 Plant



APPENDIX C – Air Separator

APPENDIX D – Air Separator Post-Accident