FAI-2019-16

UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Underground Salt Mine

Fatal Electrical Accident

August 15, 2019

M.C. Electric LLC (Z2V) Morgan City, Louisiana at Cote Blanche Mine Compass Minerals Louisiana, Inc. Franklin, St. Mary Parish, Louisiana ID #16-00358

Accident Investigators

Darwin L. Bratcher Supervisory Mine Safety and Health Inspector

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

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OVERVIEW

Shawn Clements, a 43-year-old contract Electrician with 10 weeks of experience at this mine, died on August 15, 2019, after contacting an energized electrical circuit. The victim was attempting to install a new circuit for the fire suppression system at the time of the accident.

The accident occurred because mine management did not ensure the victim de-energized and locked out the electrical circuit prior to performing the task.

GENERAL INFORMATION

Compass Minerals Louisiana, Inc. (Compass) owns and operates the Cote Blanche Mine (Cote Blanche) in St. Mary Parish, Louisiana. The mine operates two 11-hour shifts, seven days a week, and employs 166 miners. Cote Blanche normally mines salt from underground using the cutting, drilling and blasting mining method. Cote Blanche sizes the salt underground and hoists it to the surface for shipping. United Steelworkers International Union represents the miners at this mine.

The principal officers for this mine at the time of the accident were:

Kevin S. Crutchfield	President & CEO
Jamie Standen	Chief Financial Officer
Angela Jones, Sr.	VP, People and Culture

M.C. Electric LLC (M.C. Electric) provides contract employees to Cote Blanche.

The Mine Safety and Health Administration (MSHA) started a regular inspection on August 12, 2019, and the inspection was ongoing at the time of the accident. The non-fatal days lost (NFDL) incident rate for Cote Blanche for 2018 was 1.10, compared to the national average of 1.03.

DESCRIPTION OF ACCIDENT

At approximately 7:30 a.m., Shawn Clements and Derrick Hensler, M.C. Electric's Electricians, met with Nate Landy, Compass' Electrical Supervisor. Landy instructed Clements and Hensler to remove a high voltage power cable in the back part of the mine. At approximately 10:15 a.m., Clements and Hensler returned to Landy's office and informed him they had a flat tire on the personnel lift they were using to remove the cable and were unable to complete the task. Landy reassigned Clements and Hensler to install a new dedicated 120 VAC electrical circuit for the fire suppression system in the portion of the mine referred to as the C-3 trench. Vincent Louviere, Compass' Mine Electrician, and David Goodwin, Fire and Safety Specialists Technician, notified Landy the fire suppression system was de-energized based on Goodwin, with Louviere present, finding no power inside the panel using a voltage meter.

At approximately 10:30 a.m., Landy sent Kauby Labiche, Compass' Mine Electrician, to check on Clements and Hensler. When Labiche arrived, Hensler was drilling a hole in the side of an electrical circuit breaker box just outside the C-3 trench. Clements was in the trench installing a cable for the new circuit. Hensler asked Labiche to find out if Clements had another drill since the battery was going dead on his drill. Labiche went into the trench and attempted to get Clements' attention by yelling for him. Labiche then approached Clements and touched him on the back and Clements fell to the ground. Labiche left the trench to get assistance.

At approximately 11:38 a.m., Labiche called over the mine radio a man was down in the C-3 trench. Hensler saw Labiche run out of the trench, so he went in to check on Clements. Hensler found Clement's on the ground and unresponsive. He grabbed Clements by the feet and dragged him out from between the belt conveyor and the control box. Hensler began cardiopulmonary

resuscitation (CPR) and continued until mine rescue team members arrived at the scene and took over. Mine rescue team members continued CPR and used an Automated External Defibrillator, with no response, while transporting Clements to the surface. Emergency medical services received Clements and transported him to the St. Mary Parish Coroner's Office. Eric J. Melancon, M.D., Coroner for the St. Mary Parish Coroner Office, pronounced him deceased at 1:40 p.m. The cause of death was electrocution.

INVESTIGATION OF ACCIDENT

At 12:50 p.m., Scott Fountain, Compass' Safety Supervisor, called the Department of Labor National Contact Center (DOLNCC). At 12.59 p.m., DOLNCC contacted Elwood Burris, MSHA's South Central District Staff Assistant. At the time of the accident, Mine Safety and Health Inspectors O'Neal Robertson and Chad Derouen were at the mine conducting an E01 inspection. Robertson issued an order under provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and began the investigation. At 5:40 p.m. on August 16, 2019, MSHA's lead investigator, Darwin Bratcher, Supervisory Mine Safety and Health Inspector, arrived at the mine site.

MSHA's accident investigation team conducted a physical inspection of the accident site, interviewed miners, and reviewed conditions and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management, miners' representative and miners. See Appendix A for persons participating in the investigation.

DISCUSSION

Location of the Accident The accident occurred underground in the C-3 trench area of the Cote Blanche mine.

Environmental Conditions

The accident occurred underground and conditions were hot and very humid.

Fire Suppression System and Activity Leading to the Accident

The underground C-3 belt conveyor is equipped with a fire suppression system to alert mine personnel of a potential belt conveyor fire as well as to apply a chemical agent to suppress fires when activated. The fire suppression system is 120 VAC. A voltage transformer reduces the control voltage to 24 VDC. The voltage transformer is located in a control box on the rib of the C-3 trench adjacent to the C-3 belt conveyor (see Appendix B). Based on interviews and site investigation, investigators determined the electricians were working on an energized electrical circuit. The circuit breaker for the fire suppression system, which controls the lights and outlets in the C-3 tunnel, was energized when the accident occurred. Investigators found a cut in the insulation of the 120 VAC wire and determined Clements came in contact with this energized wire (see Appendix C).

TRAINING AND EXPERIENCE

Clements received 38 hours of new miner training in March 2019. Cote Blanche was required to provide training on Introduction to the Work Environment and training on lock-out and tag-out to their contractors. Cote Blanche claimed to have provided this training but was unable to produce training records for these two courses for the victim. Mr. Clements started working at the mine as a contract employee approximately ten weeks prior to the accident. Mr. Clements was an electrician by trade.

ROOT CAUSE ANALYSIS

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

<u>Root Cause</u>: The mine operator did not ensure contract electricians followed their lock-out and tag-out policy prior to performing work on the electrical power circuit.

<u>Corrective Action</u>: The mine operator had a safety stand down with all miners: hourly, salary and contractors, at the mine and reviewed the lock-out and tag-out policy along with other safety procedures. Mine operator revised their training procedures to ensure new contract employees receive training in their lock-out and tag-out program and record such training.

CONCLUSION

Shawn Clements, a 44-year-old contract Electrician with 10 weeks of experience, died on August 15, 2019, after contacting an energized electrical circuit. The victim was attempting to install a new circuit for the fire suppression system at the time of the accident. The accident occurred because mine management did not ensure the victim de-energized and locked out the electrical circuit prior to performing the task.

Approved: _____ Date: _____

William D. O'Dell South Central District Manager

ENFORCEMENT ACTIONS

- A 103 (k) Order No. 9457409 was issued on August 15, 2019, A fatal accident occurred at this operation on 8/15/2019 at approx. 11:38 a.m. This order is being issued under 103k of the Federal Mine Safety and Health Act of 1977, to assure the safety of all persons at this operation. This order is also being issued to prevent further destruction of any evidence which would assist in investigating the cause or causes for the accident. It prohibits all production and maintenance activity in A North and B North of 10 heading, East to 15 and the entire drift from 15 & A North to 15 & D South in the 1500 foot level of the underground mine until MSHA has determined it is safe to resume normal mining operations in this area. MSHA initially issued the order in writing.
- 2) A 104(a) Citation No. 8966039 was issued to Compass Minerals Louisiana Inc., for violation 30 CFR § 57.12017 on 11/13/2019 at 7:08 a.m. A contract electrician received fatal injuries while working on an energized electrical circuit in the C-3 trench. The fire suppressions system's 120 VAC electrical circuit remained energized and not locked out prior to performing work. The electrician was installing a new electrical circuit to the fire suppression system control box in the trench when he contacted the energized wiring from the existing circuit in the control box.

APPENDIX A Persons Participating in the Investigation (Persons interviewed are indicated by a * next to their name)

Compass Minerals Louisiana, Inc.

Don Brumm*
M.C. Electric LLC
Derrick Hensler*Electrician
Fire and Safety Specialists
David Goodwin*Technician
Lynn Bayard Health and Safety
Lynn BayardOwner
Jackson and Kelly
Laura BeverageAttorney
<u>United Steelworkers International Union</u> Chad ForestierMiners' Representative
Mine Safety and Health Administration
Darwin BratcherSupervisory Mine Safety and Health Inspector O'Neal RobertsonMine Safety and Health Inspector Chad DerouenMine Safety and Health Inspector

Jeffrey Devall...... Educational Field and Small Mine Services

APPENDIX B C-3 Trench



APPENDIX C Damaged 120-Volt Line

