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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Coal)

Fatal Machinery Accident
February 12, 2025

CCU Sexton Strip
CCU Coal and Construction LLC
Cadiz, Harrison County, Ohio
ID No. 33-04577

Accident Investigators

Joedy Gutta, P.E.
Civil Engineer

Kevin Jones, P.E.
Civil Engineer

Originating Office
Mine Safety and Health Administration
Morgantown District
604 Cheat Road
Morgantown, WV 26508
Carlos Mosley, District Manager

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OVERVIEW

On February 12, 2025, at 9:22 a.m., Edward Blomquist, a 73-year-old highwall drill operator with over 46 years of mining experience, died when the ground beneath the drill he was positioning failed, causing the drill to fall off the highwall.

The accident occurred because the mine operator did not: 1) have a policy or procedure in place to ensure safe drilling and work practices near the edge of the highwall, and 2) correct or barricade the loose and unconsolidated material along the edge of the highwall.

GENERAL INFORMATION

CCU Coal and Construction LLC owns and operates the CCU Sexton Strip, a surface mine which extracts bituminous coal from several coal seams located in Cadiz, Harrison County, Ohio. The mine employs 13 miners and operates one ten-hour shift per day, five days per week. This mine uses area and contour mining methods to extract coal. Front-end loaders load the coal into over-the-road trucks for off-site delivery. CCU Coal and Construction LLC contracts Wampum Hardware Co. for blasting.

The principal management officials at the CCU Sexton Strip at the time of the accident were:

Gregory Honish	Vice President/Chief Operating Officer
William Alloway	Safety Manager

The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on December 6, 2024. The 2024 non-fatal days lost incident rate for CCU Sexton Strip was zero, compared to the national average of 0.84 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On February 12, 2025, at 4:00 a.m., Blomquist began his shift by tramming the drill to the 021 Pond Pit highwall bench (see Appendix A). He started drilling a row of blast holes furthest from the edge of the highwall. At 7:37 a.m., employees from Wampum Hardware Co. began arriving at the bench, and Blomquist was drilling the row of blast holes closest to the edge of the highwall. The drill's tracks were aligned parallel to the edge of the highwall.

At 9:21 a.m., Blomquist completed a blast hole and started tramming in reverse to the next hole with the drill's tracks still parallel to the edge of the highwall. At 9:22 a.m., Blomquist steered the drill, and the ground failed causing the drill to fall off the highwall to the pit floor 30 feet below.

Allen Carroll, Bulldozer Operator, and Robert Hall, Front-End Loader Operator, were in the 021 Pond Pit when the accident occurred. Carroll went to the drill where he found Blomquist outside the cab. Blomquist was unresponsive and had no pulse. Hall called 911 at 9:24 a.m.

The Harrison County Sheriff and the Hopedale Fire Department responded to the accident site, and they called Dr. Porsche Beetham, Harrison County Coroner, to the accident site. Dr. Beetham pronounced Blomquist dead at 9:45 a.m.

INVESTIGATION OF THE ACCIDENT

At 9:41 a.m., William Alloway, Safety Manager, called the Department of Labor National Contact Center (DOLNCC) to report the accident. The DOLNCC contacted John Dye, Supervisory Mine Safety and Health Inspector. Dye contacted Kenneth Cosgrave, Supervisory Mine Safety and Health Inspector, and informed Carlos Mosley, District Manager, Tyler Peddicord and James Baker, Assistant District Managers of the accident. Peddicord assigned Joedy Gutta, P.E. and Kevin Jones, P.E., Civil Engineers, to investigate the accident.

At 10:40 a.m., Cosgrave arrived on site to secure the scene. Gutta and Jones arrived at 12:20 p.m., and Gutta issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and the preservation of evidence.

MSHA's accident investigation team, along with the Ohio Department of Natural Resources, Division of Mineral Resource Management, performed an examination of the accident scene; interviewed miners, mine management, and employees from Wampum Hardware Co.; and reviewed conditions and work practices relevant to the accident. See Appendix B for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

The accident occurred on the highwall bench at the 021 Pond Pit area of the mine.

Weather

The weather at the time of the accident was cloudy, 32 degrees Fahrenheit, with a light dusting of snow on the ground. When investigators arrived at the accident site, the temperature was above freezing with light rain. Investigators determined the freeze and thaw cycle may have affected ground conditions and may have contributed to the accident.

Equipment Involved

The equipment involved in the accident was an Atlas Copco DM45 drill. Investigators could not perform functional testing on the drill due to the severe damage the drill sustained during the accident. Investigators inspected the drill, talked with miners, observed video evidence, and reviewed maintenance records. Investigators did not identify any mechanical deficiencies or defects that contributed to the accident.

Video evidence shows the cab of the drill positioned away from the edge of the highwall, and Blomquist exiting the drill at 8:51 a.m. to move an orange construction cone. Blomquist used the cone as a target to maintain the drill's alignment when positioning to the next blast hole. Blomquist re-entered the cab and trammed to the next hole, within one foot of the edge of the highwall. When the accident occurred, Blomquist was standing in the cab, looking out of the rear window while tramming the drill toward the cone. Investigators entered the drill cab to evaluate the operator's visibility. Investigators determined the edge of the highwall would not have been visible from the cab.

Ground Conditions

The 021 Pond Pit area was used previously to dispose of excavated overburden soil material (spoil) during mining activities that occurred over 50 years ago. This spoil covered the undisturbed ground that CCU Coal and Construction LLC was removing to access the coal seams. As mining progressed, the use of drilling and explosives became necessary to remove the in-situ rock.

The highwall where the accident occurred was 30 feet high. The highwall strata consisted of a 20-foot layer of competent in-situ shale and limestone, an approximately two-foot-thick coal seam, four to six feet of weathered shale, covered by four to six feet of loose, unconsolidated brown spoil from the previous mining activity. The highwall bench was 60 feet wide.

The semi-circular ground failure where the accident occurred was approximately 50 feet long by 10.5 feet wide. There were scale marks visible 19 to 20 feet above the pit floor and on the upper coal seam where the failure occurred. No scale marks were observed in the material above the coal seam anywhere on the highwall. Additionally, the highwall on both sides of the failure contained overhanging and over-steepened material above the coal seam (see Appendix C). Investigators determined the loose material above the upper coal seam was not scaled or

removed. The mine operator did not correct or barricade the hazardous condition, which contributed to the accident.

Previous Ground Failure

Video evidence shows windrowed material (material left in a narrow ridge by bulldozers) missing, and an indentation of the bench on the outer edge of the highwall (see Appendix D). There was no snow below the indented area on the highwall face indicating a previous ground failure occurred in this area. Investigators believe the missing material from the top of the highwall was the material that impacted a truck and was observed on the pit floor. Blomquist walked past this indented area when he placed the orange alignment cone. This is also the area where the accident occurred as he was positioning the drill.

Ground Control Plan

MSHA acknowledged the mine operator's Ground Control Plan (GCP) on January 27, 2020. It detailed the plan to be used to ensure that highwalls were safely created and provided provisions to follow when hazardous conditions were found. The following provisions are specifically stated in the mine operator's GCP:

1. "Topsoil and other unconsolidated soils are pushed off or otherwise removed from the work area down solid rock along the entire surface of the work area. Care will be taken to ensure operators do not undercut toe of the highwall during the operation. A track-hoe may also be used to scale any additional loose material that the tractor may have missed."

2. "If unsafe conditions develop on the highwall the area will be barricaded using berms to guard against unauthorized entry until the condition is corrected."

Investigators determined the mine operator did not follow these provisions of the ground control plan, which contributed to the accident.

Examinations

Williams conducted an on-shift examination of the 021 Pond Pit highwall bench the day prior to the accident and examined the highwall face the morning of the accident. The examination did not document the loose, unconsolidated material along the top the highwall. Williams stated the outer edge of the highwall was soft and he notified Blomquist and Dakota Ginn, Certified Blaster for Wampum Hardware Co., of the hazardous condition. He directed Blomquist and Ginn to only drill and shoot the portion of the bench farthest from the highwall edge and have it ready to blast by noon. At approximately 8:00 a.m., Williams drove to an elevated location on the haul road to observe the spoil embankment to the east of the 021 Pond Pit bench. He could see the bench where Blomquist and Wampum Hardware Co. employees were working but was too far away to identify the previous ground failure. The investigators determined the mine operator did not report and correct or barricade the hazardous condition, which contributed to the accident.

Training and Experience

Blomquist had over 46 years of mining and drilling experience with over 24 years of experience as a highwall drill operator at this mine. The mine operator provided task training on the Atlas Copco DM45 drill to Blomquist on May 10, 2011, and annual refresher training on October 4,

2024. Investigators determined Blomquist received all training in accordance with MSHA Part 48 training regulations.

ROOT CAUSE ANALYSIS

The accident investigators conducted an analysis to identify the underlying causes of the accident. The investigators 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 have a policy or procedure in place to ensure safe drilling and work practices near the edge of the highwall.

   Corrective Action: The mine operator revised their GCP to address safe drilling and work practices near the edge of the highwall:

   1. "Adequate berms or barricades will be constructed at the edge of the drill bench to prevent the highwall drill from operating too close the highwall."

   2. "If drilling needs to occur adjacent to the edge of the drill bench, the drill shall approach the edge with the drill tracks at a perpendicular angle or if there is not enough room due to bench width, at an angle no more than 45 degrees from perpendicular. Any necessary turning of the drill will be in a direction away from the edge of the highwall."

   The mine operator trained all miners on the revised GCP.

2. Root Cause: The mine operator did not correct or barricade the loose and unconsolidated material along the edge of the highwall.

   Corrective Action: The mine operator provided training to all certified foreman on the methods to correct, post, or barricade hazardous ground conditions when identified. The mine operator also revised their GCP to include the following:

   1. "The drill bench and highwall shall be observed and examined thoroughly prior to any activities at the beginning of every shift. If any hazards are recognized, activities shall not occur until hazards are eliminated. This shall include but is not limited to any loose or overhanging material being present around the drill bench or highwall. The loose or overhanging material will be scaled down by a bulldozer or a track-hoe, or it will be bermed off to restrict access to that area."

CONCLUSION

On February 12, 2025, at 9:22 a.m., Edward Blomquist, a 73-year-old highwall drill operator with over 46 years of mining experience, died when the ground beneath the drill he was positioning failed, causing the drill to fall off the highwall.

The accident occurred because the mine operator did not: 1) have a policy or procedure in place to ensure safe drilling and work practices near the edge of the highwall, and 2) correct or barricade the loose and unconsolidated material along the edge of the highwall.

Approved By:

_____ _____

Carlos Mosley Date
District Manager

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to CCU Coal and Construction LLC.

   A fatal accident occurred on February 12, 2025, at 9:22 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(a) citation was issued to CCU Coal and Construction LLC for a violation of 30 CFR 77.1000.

   On February 12, 2025, a fatal accident occurred at this operation, when the ground beneath the drill failed while a highwall drill operator was positioning the drill. The failure caused the drill to fall off the 021 Pond Pit highwall. The ground failure resulted from the presence of loose material above the upper coal seam where the drill was operating. The mine operator did not follow their ground control plan (GCP) acknowledged on January 27, 2020.

   The following provisions are stated in their GCP and were not followed:

   1. "Topsoil and other unconsolidated soils are pushed off or otherwise removed from the work area down solid rock along the entire surface of the work area. Care will be taken to ensure operators do not undercut toe of the highwall during the operation. A track-hoe may also be used to scale any additional loose material that the tractor may have missed." (Page 3, Item 1 of GCP)

   2. "If unsafe conditions develop on the highwall the area will be barricaded using berms to guard against unauthorized entry until the condition is corrected." (Page 8, third bullet of GCP)

APPENDIX A – Pond 021 Pit Area

Aerial view of the accident site taken February 27, 2025

APPENDIX B – Persons Participating in the Investigation

CCU Coal and Construction LLC

William Alloway	Safety Manager
Nathan Williams	Shift Foreman
Jack Akers	Truck Driver
Robert Hall	Front-End Loader Operator
Allen Carroll	Bulldozer Operator
Roger Phillips	Bulldozer Operator

Wampum Hardware Co.

Mikayla Main	Safety Manager
Grant Ahrens	Safety/Compliance Coordinator
Marvin Lee	Safety/Compliance Coordinator
Ronald Bates	Bulk Truck Driver
Randy Fairchild	Certified Blaster
Dakota Ginn	Certified Blaster

Ohio Department of Natural Resources
Division of Mineral Resources Management

Micheal Doan	Surface Mine Safety Supervisor
Joseph Heagney	Mine Safety Inspector II

Mine Safety and Health Administration

Carlos Mosley	District Manager
James Baker	Assistant District Manager
Michael Stark	Staff Assistant
Kenneth Cosgrave	Supervisory Mine Safety and Health Inspector
Joedy Gutta, P.E.	Civil Engineer
Kevin Jones, P.E.	Civil Engineer

APPENDIX C – 021 Pond Pit Highwall

Photo of Physical Conditions of Highwall

APPENDIX D – Wampum Hardware Co. Bulk Truck Dash Camera

Photo Indicating Previous Ground Failure