



# Illinois Department of Natural Resources

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JB Pritzker, Governor  
Colleen Callahan, Director

## MINUTES OF MEETING OF ILLINOIS STATE MINING BOARD BENTON, ILLINOIS

April 15, 2021

The following State Mining Board members were present:

Robert Eggerman  
Bernard Harsy  
Michael Huff  
Ronnie Huff, Executive Officer  
Steve Willis

### Call to Order, Roll Call of Board Members

The meeting was called to order by Executive Officer Ronnie Huff. A roll call of board members was made with all members present. Having a quorum, Ronnie Huff proceeded with the meeting.

### Approval of Minutes

The minutes from the January 17, 2020 State Mining Board meeting were reviewed. The minutes were approved and accepted as presented.

### Methane Extraction from Active Coal Mines

A plan for burning off methane from an active mine in Illinois was submitted to the Office of Mines and Minerals by Keyrock Energy. Bill Patterson, State Mine Inspector at Large, said he has received complaints from individuals in the mining industry and from individuals within the Office of Mines and Minerals about the safety of burning methane from active mines so he wanted to bring this issue before the board.

Morgan Pate and Joe Stone were the two individuals representing Keyrock Energy before the Board and provided the following information and testimony. Joe Stone serves as the operations manager for Keyrock. The Keyrock representatives started by presenting an overview of the company. Keyrock has been operating in Illinois for 5 or 6 years but mostly in abandoned mines. In Illinois they are currently regulated by the IL EPA and Office of Oil and Gas. They operate from Orient 3 all the way down to Old Ben Coal 8. Several years ago, California put forward a program that allowed Keyrock to turn the methane they were burning off into environmental credits. At this time, Keyrock was only interested in abandoned mines but has recently started burning off methane from active mines. They currently have “3 or 4” active mines (with miners working underground) in their portfolio which are in Pennsylvania, Alabama, and West Virginia (Affinity Mine in Raleigh County, WV). Keyrock has been flaring on active mines for a little over a year. They usually only set up behind seals, and it is rare for them to attach to unsealed parts of mines or anything hooked up to ventilation. The Keyrock representatives stated that the company gets approval through MSHA and state mining boards before operating in active mines. The unit they use for burning off methane is called a Methane Extraction Control System (MECS). Keyrock’s MECS units have over 100,000 hours of operation with no accidents or violations. The units can be monitored remotely 24 hours a day and shut off automatically if there is an alarm. The Keyrock representatives said they have operators within a 45 minute response time to all MECS units. Keyrock has a central facility located in Corinth, IL and operators located out of Sesser, Mt. Vernon, and Galatia. The representatives clarified that response times are usually less than 4 hours, but 90% of the time, response times are within 45 minutes. Keyrock is currently working with Foresight Energy’s M-Class Mining and Mach Mine to develop a plan to burn off methane from one or both active mines.

Director Ronnie Huff asked what situation could cause one of the alarms in the MECS unit to go off. The Keyrock representatives said the units measure flow, methane concentration, barometric pressure, and the thermal couple temperature. The units are set up to only run within specified parameters and will shut off when any measured levels are out of range. The unit’s ventilation pipes have check valves and flame arresters hooked up to the well head. The units must be restarted by a Keyrock operator and all operators have MSHA training to work on site. If a unit shuts down the mine can still ventilate to atmosphere. The representatives stated all of their sites have somebody within a 30 minute drive, contradicting the previously stated 45 minutes. Keyrock usually experiences less than 10 hours of downtime a month. Keyrock keeps daily logs, weekly reports, send monthly reports to MSHA, and must send an electrician to inspect their units/site every month. 35% is the methane percentage cut off for shutting down the units. Keyrock and Environmental Credit Commodities are the only two companies that currently burn off methane from active coal mines. If a mine is ordered to mitigate methane, that mine no longer qualifies for California’s carbon credit program that Keyrock operates under.

Director Huff reiterates his concern for the safety of the miners working underground while methane is being burned off on the surface. The Keyrock representative stated they operate under the ventilation plans already in place from the mine and everything is approved by MSHA. The Keyrock representatives said that the Affinity Mine in West Virginia (one of their active mines) was having trouble with air leaking across their seals and were going to have to drill a hole behind the seals to degass the mine anyway. Director Huff and Board Member Steve Willis both expressed concern about the fact that mine seals do leak. They asked how Keyrock monitors the amount of oxygen being pulled behind the seals from the working area of the mine and if this creates an explosion hazard. The Keyrock representatives stated that this wasn't a concern to MSHA, but if it was a concern to the Mining Board, they can add an oxygen sensor to their MECS units. At their Pennsylvania site they are required by MSHA to monitor ambient methane around the MECS unit.

State Mine Inspector Dave Colombo stated that M-Class mining ran an unapproved vacuum pump at the Viking head gate 427 crosscut and had a surface ignition in a forested area. His concern was that the power plant will be within 30 feet and the flares within 50 feet and if the wind shifts there could be a wildfire that would jeopardize the miners underground. Keyrock stated that they would move equipment to be a safe distance from any well bore or entry to the mine and would follow any rules or regulations set forth by the state.

Roger Dennison from Foresight stated that these MECS units are already approved by MSHA and flaring gas is approved by the EPA for mine safety. He believed that these MECS units were safe for use in active mines based on the information provided and presented to him by Keyrock. Mr. Dennison said that he wasn't concerned about new seals (120 psi) leaking. For older seals that do leak, he believed that the MECS unit sensors will shut the unit off well before an explosive mixture of oxygen and methane can occur. Mr. Dennison stated his belief that working to reduce green house gas emissions from coal mines will help Illinois coal mines in the long run. Bill Patterson indicated that if this plan is approved, the state mine inspectors would be involved in the process.

Director Huff suggested the Mining Board not hold a vote until more information was presented by Keyrock Energy. Steve Willis stated that he would also like more information before voting. Bernard Harsy asked how far behind the seals they would drill. The Keyrock representatives said the distance varies from a couple hundred feet to one thousand feet depending on the mine. Michael Huff motioned to table the discussion for a later date and Robert Eggerman seconded the motion. The motion to table the discussion was adopted by consensus.

#### Hoisting Engineer Certification

Bill Patterson, State Mine Inspector at Large, requested that individuals taking Hoisting Engineer Certification classes be able to take their certification test within a reasonable amount of time

after the last class. Bill Patterson stated that there is a 7 week wait between the last class and the testing date. Bernard Harsy motioned that anyone completing the Hoisting Engineer Certification should be able to take the certification test as soon as possible. Steve Willis seconded the motion and the motion was passed by a voice vote.

#### Mine Rescue Contests and Protocols

Bill Patterson notified the Board that MSHA will not supply any judges to any contest this year and therefore the Illinois Office of Mines and Minerals will not be able to hold a state mine rescue contest. MSHA has not removed the requirement of having to compete in two contests per year so the Office of Mines and Minerals will hold several smaller contests to ensure compliance of all mine rescue teams.

Michael Huff motioned to adjourn the meeting and Robert Eggerman seconded the motion.