

Place change - maintaining adequate ventilation

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Observation

During a visit to a Place Change operation, using a Joy Continuous Miner, it was observed that the Scrubber Fan was routinely shut down when the miner was not loading coal. This occurred even when the miner had advanced to the full depth of the sequence (i.e. 12m).

Hazard

Inadequate ventilation of the face area. Once the miner has advanced into the cut such that the Scrubber Exhaust is in by the primary ventilation delivery point (e.g. brattice or vent. duct) then the face area is not adequately ventilated unless the Scrubber is operating. The three diagrams below demonstrate the issue.

Associated factors

The Scrubber Fan is interlocked with the cutting head on all Joy miners to ensure that cutting cannot take place without the scrubber running.

The interlock incorporates a variable time delay to a maximum of 15 minutes between the Cutter Head stopping and the Scrubber stopping. This can be pre-set and locked or can be left to the discretion of the operator. Momentary restart of the Cutter Head will restart the time delay.

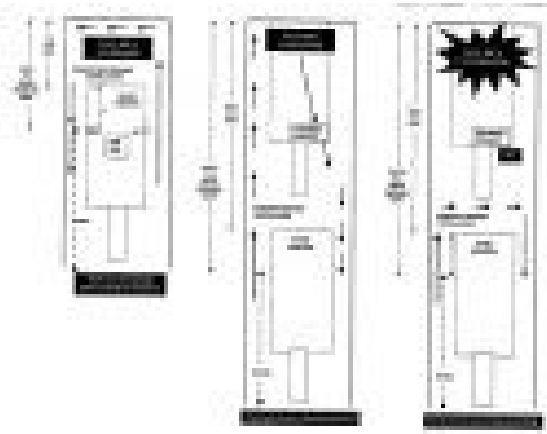
Until this incident, the mine was unaware of the variable time delay capability and the **delay was set to the minimum.**

Recommendations

Mines review the risk assessment on their Place Change Ventilation System to ensure that the face area is adequately ventilated at all times and that all crew members understand the system.

Ensure the time delay is set to 15 minutes which will cater for most operational situations (e.g. between shuttle cars).

Amend work procedures to ensure the miner is not left at the face with the scrubber stopped.



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