

SAFETY ALERT

Report N°: SA98-02

File N°: C98/0189

This SAFETY ALERT has been prepared to provide all coal mines with the earliest possible advice of a dangerous occurrence so that appropriate action can be undertaken at each mine to avoid any occurrence of a similar nature.

SUBJECT: TWO OUTBURSTS OF COAL ON A LONGWALL FACE


A shearer crew on a run to the tailgate stopped with a blockage under the shearer and saw what appeared to be an outburst. Another similar outburst was seen some fifteen (15) metres further along the face.

RESULTS OF INITIAL INVESTIGATION:

- * The occurrences were definitely outbursts of low intensity with the cavities being measured up to three (3) metres deep at the top of the seam and perhaps deeper.
- * The deputy only had 7% CO₂ Drager tubes and some ten (10) minutes after discovery inbye the nearest outburst tubes went off scale (+7% CO₂) and some forty minutes later inbye the second outburst.
- * It was not known when the outbursts occurred but between the shearer passing and returning to the area was at least 30 minutes.
- * Face workers are discouraged from being on the return side of the shearer and fortunately no one was.
- * The face take off line was some thirty one metres away.
- * The block had been extended from the original take off line.
- * The area was either only partially drained near gate roadways or generally not drained of gas at all.
- * Inseam gas samples taken after the event show 98% CO₂ content with, to date, cores showing from 5.2 m³/sec/tonne up to 20.5 m³/tonne of CO₂ within seven (7) metres of the face.
- * A number of short gas outs with +1.25% CO₂ had occurred on the immediate inbye block area which had been partially drained only.
- * It appears that the possibility of gas outs was considered and accepted prior to mining the undrained area.
- * The potential for outbursts was not considered on the retreating longwall face.
- * The coal is heavily cleated but the possibility of minor structures being present on the outbursts cannot be ascertained until it is possible to clean up the areas.
- * It is known that high CO₂ gas areas can outburst without significant structures being present.
- * There was no mine monitoring system for carbon dioxide.

PRELIMINARY RECOMMENDATIONS

- 1 High in-seam gas areas, especially if high in carbon dioxide, should be drained to acceptable levels prior to mining. Consideration should be given to addressing this matter in the mines Outburst Management Plan.
- 2 The acceptance that regular gas outs will occur when mining is not good, safe mining practice.
- 3 When mining plans are changed then all possibilities should be examined and appropriate barriers put in place.
- 4 In high gas mines full mine ventilation monitoring is essential.


B. R. McKENSEY,
CHIEF INSPECTOR OF COAL MINES.