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**DEPARTMENT: MINERALS AND ENERGY
REPUBLIC OF SOUTH AFRICA**

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Ref: OT 11/27

Date 14 April 2003

The Mine Manager
Matla Coal Ltd No. 3 Mine
Private Bag X5006
KRIEL
2271

Sir

**INSTRUCTION IN TERMS OF SECTION 54 OF THE MINE HEALTH AND
SAFETY ACT (ACT NO. 29 OF 1996): CUTTING IN BURNT COAL WITH
MECHANICAL MINERS**

It has come to the attention of this office that some mines are still cutting in burnt coal or through dykes with mechanical miners without taking special precautions to prevent any dangerous situation from developing.

There have been eight ignitions involving mechanical miners in the Mpumalanga region and in all cases burnt coal was intersected when the ignition occurred.

Mine	Date
Delmas Colliery	08-12-1994
Twistdraai Colliery	12-02-1997
New Denmark Colliery	18-09-1998
Middelbult Colliery	17-10-1998
Twistdraai Central	19-10-1999
New Denmark Colliery	11-02-2000
Bosjesspruit Colliery	28-06-2002
Brandspruit Colliery	22-08-2002

The hazard of an ignition in the cutting zone always exists as the release of flammable gas, especially in porous burnt or devolatilised coal is something that is not easily eliminated. The potential of frictional heating caused by picks on sandstone, pyrite

modules or floating stone in the coal seam is likewise something that is difficult to prevent or to control.

These two factors coupled to the fact that there will always be sufficient oxygen to support an ignition, make the cutting of burnt coal an extremely hazardous operation.

This is proved by the fact that seven employees were injured in the above-mentioned ignitions.

The Mine Health and Safety Act (Act No. 29 of 1996) places an obligation on the employer to identify hazards in the working environment, and after consultation with the health and safety committee at the mine, determine all measures, including changing the organisation of work and the design of safe systems of work necessary to –

- eliminate any recorded risk;
 - control the risk at source;
 - minimise the risk; and
 - in so far the risk remains;
- provide for personal protective equipment;
 - institute a programme to monitor the risk to which employees may be exposed.

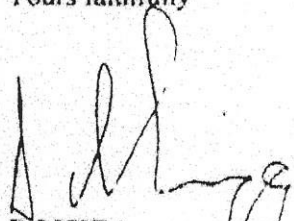
It is extremely difficult to predict and control sudden inrushes of flammable gas and frictional heating caused by mechanical miner picks in burnt coal. It is obvious that the hazard of flammable gas ignitions in such conditions using mechanical miners cannot be eliminated.

With the ignition at New Denmark Colliery on 11-02-2000 it was evident that the ignition could not be prevented by very good ventilation of the face region. Sufficient flammable gas was released and ignited to cause a flame spread up to the drivers cab position. This ignition took place while the occupational hygienist and the shiftboss were supervising the work.

Since the consequences of a flammable gas ignition can be severe, all underground mines are prohibited from cutting in burnt coal unless the mechanical miners are equipped with a system that will prevent a frictional ignition or automatically detect and extinguish the flames resulting from such an ignition.

In response to this letter kindly inform this office, by the 15 May 2003, on the special precautions that have been taken to ensure that this hazard is eliminated.

Yours faithfully



**D MSIZA
PRINCIPAL INSPECTOR
MPUMALANGA REGION**