

NATIONAL ASSEMBLY

FOR ORAL REPLY ON WEDNESDAY, 12 MARCH 2008

QUESTION NO 96

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★96. Mr G R Morgan (DA) to ask the Minister of Water Affairs and Forestry:

- (1) Whether acid mine drainage is a contributing factor to the pollution of water sources; if not, how did she reach this conclusion; if so, what is the extent of the problem;
- (2) whether any steps are being taken to ensure that mining authorisations comply with water licensing procedures; if not, why not; if so, what steps? NO923E

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REPLY:

- (1) Yes. Acid mine drainage is the result of the oxidation of reactive minerals such as pyrite which occurs in all coal and gold mines. Through the process of mining, pyrite is exposed to water and oxygen and it then reacts chemically to generate sulphuric acid. This generation of acidic mine water started immediately when mining commences.

The sulphuric acid lowers the pH of the water and mobilises heavy metals such as iron, aluminium and manganese. The acidic mine water has a low pH, high sulphate content, and high heavy metals concentration, and this renders the acidic mine water unfit for use.

Groundwater flows into any mine, therefore whenever a mine stops its operations, it starts to fill up with this poor quality water. If the mine void is filled up with water and it reaches the surface by means of seepage through the ground or decanting

from adits, shafts and boreholes, it is called acid mine drainage.

The poor quality of the acid mine drainage, as described above, definitely has a huge negative impact on any receiving water resource.

Acid mine drainage is associated with closed, defunct or abandoned coal or gold mines and it can therefore occur in the Free State and Witwatersrand gold fields and the coal fields of Mpumalanga and northern KwaZulu-Natal.

- (2) My Department is busy with a major drive to upgrade and streamline its licencing process and is working away the current backlog in water use authorisations.

The Department's Regional offices check on the compliance of water users adherence to licence conditions. After a water use licence has been issued to a specific water user the Department conducts regular site visits and have meetings where the requirements of licence conditions are discussed and the implementation of Departmental requirements are evaluated.

It is recognised by the Department that this issue needs to be addressed and it will develop an overarching Compliance Monitoring and Enforcement Policy, strategy and operational monitoring and enforcement system.