



## Intensified efforts to reduce dust levels at South Africa operations start to show results

Intensified efforts to reduce dust levels at the South African underground operations have started to show results, but because of the long lag times in the development of silicosis, it is still too early in the process to show significant benefits. By the end of the fourth quarter of 2007, personal dust sampling results indicated that 93% of all samples were within the industry target of  $0.1\text{m}^3$ . This compares with 91% at the same time a year previously. The group is committed to meeting industry level targets (See the Occupational Health and Safety section of the Report to Society).

The dust management programme at the South African operations has been devised and is overseen by both corporate and mine occupational hygiene personnel, although the interventions are implemented by occupational safety and health departments on the mines, with the close involvement of mine-based wellness and/or safety and health committees. The latter include union representation.

AngloGold Ashanti's approach to dust management has four key focus areas, all measured against key leading and lagging indicators, and reported at both monthly and quarterly management and executive meetings. The four areas of activity are:

- Engineering controls;
- Administrative controls;
- Personal protection; and
- Medical surveillance.

"Key to our dust management strategy is our plan to minimise and control dust at source," says Morne Beukes, Occupational Environment Manager for the South African operations. The areas that we focus on are minimising unscheduled blasts or early re-entry into working places after the blast, footwall treatment to alleviate dust generation during tramming and transportation activities, the monitoring and installation of multi-stage large-scale filtration systems in tipping areas (85 systems across the operations), increasing air utilisation and face air velocity. There are also a number of technology and innovative initiatives underway, including research into in-stope water blast equipment; water-down tools, filtration systems in ore passes and hopper covers, which all have the potential to significantly improve dust control measures in the future.

Key indicators measured		
FOCUS AREA	RESULT INDICATOR	MEASURABLE
Engineering controls	Adherence to ventilation standards	Air utilisation index
	Footwall treatment	Metres treated versus metres planned
	Watering down	Number of deviations reported
	Air filtration systems	Installation according to plan
Administrative control	Re-entry intervals after blasting	Observations recorded unscheduled blasts
	Implementation of centralized blasting	Percentage progress against plan
	Investigation of all high dust exposures	Percentage high dust exposures investigated
Personal protection	Use of respirators in high-risk areas	Percentage compliance numbers issued
Surveillance	Resources	Percentage progress
	Implementation of new sampling strategy New cases of silicosis	Samples planned versus actual number of cases submitted for compensation



## Intensified efforts to reduce dust levels at SA operations start to show results *continued*

“One of the areas where there has been a significant increase in emphasis is in personal dust sampling, with a three-fold rise in the number of personal samples taken on a monthly basis. Personal sampling is an important factor – not only is respirable dust not visible to the naked eye, the silica content of rock differs from operation to operation. Personal sampling devices that simulate the breathing mechanism of the human lung (at around 2.2 litres per minute) over a shift collect respirable dust particles, that is those less than 7 microns onto a filter, which is then analysed at a central laboratory for silica content.”

In 2006, around 1,000 samples were taken per month across the South African operations. According to Beukes, “We felt that we needed to exceed the DME set levels of surveillance that we previously adhered to as we were not effectively able to manage our exposure levels at the previous level of sampling.”

Another innovation during the year has been the intensive follow-up and investigation of all incidents of over-exposure detected by the personal sampling programme and the use of this indicator to prevent over-exposure in the future. Education and communication also form an important part of the dust management programme, as well as an increased focus on dust management as a key performance area within the company's reporting framework.

AngloGold Ashanti believes that control measures implemented today will result in reduction of occupational lung disease in the future.