

MINE REHABILITATION

SA's deadly legacy

When the use of asbestos was first banned by major importing countries during the 1990s, local asbestos mine owners and some foreign companies had a simple response. Faced with collapsing demand, they closed shop and simply walked away. But they left SA — the world's third-largest asbestos producer — with a deadly legacy.

So deadly that those involved in asbestos mine rehabilitation go to work looking much like medical personnel in an Ebola ward.

"We have a stringent approach to safety," says Raymond Mayne, rehabilitation team manager at SRK Consulting. "We wear protective suits fitted with respirators. When finished we are hosed down."

They have good reason for extreme caution. The US National Institute for Occupational Safety & Health puts it bluntly: "There is no level of exposure to asbestos below which clinical effects do not occur." At its worst, asbestos's needle-like strands cause mesothelioma, an incurable form of lung cancer.

But rehabilitation projects are

under way, part of a multiyear project funded by the department of mineral resources (DMR). The project is managed by minerals processing research organisation Mintek.

The full extent of the abandoned asbestos mine threat is

unclear but it is one that evolved over 109 years of mining in SA. Most mines are in the Northern Cape, Limpopo and Mpumalanga.

Alarming, there could be as many as 660 abandoned mines and shafts, believes quantity surveying firm Turner & Townsend (T&T). And

rehabilitation is a costly affair.

"Mintek received R165m from the DMR for rehabilitation projects between March 2013 and February 2016," says Herman Cornelissen, head of the organisation's asbestos mine rehabilitation project. In the previous three years, which marked phase one of the project due to continue until 2038, Mintek received R90m.

Mine restoration is a multidisciplinary process. First in are the consulting engineers, a task Mintek has assigned to SRK,

which works closely with T&T.

SRK's job is to assess the engineering steps needed to undertake an effective rehabilitation. "There is no single solution," says Mayne. "Each project is unique."

Armed with SRK's preliminary engineering design, it is up to T&T to produce a definitive proposal and cost assessment. "We seek the most cost-effective method without compromising on our social responsibility," says T&T senior quantity surveyor Gordon Bulmer.

"We also prepare tender documents and financially manage a project from start to finish." Rehabilitation projects can take from five months to a year to complete. The objective is to seal off exposed asbestos in abandoned dumps. It is vital to ensure that it is not susceptible to future erosion caused by wind and rain, he says.

A method commonly used is to cap exposed asbestos with rocks and soil and reintroduce vegetation. In extreme cases, succulents have been introduced to discourage people and animals from venturing into contaminated areas.

The DMR's initiative should be applauded. But for those who have been exposed to asbestos it is too late. The World Health Organisation (WHO) says there are about 200 asbestos-related deaths in SA every year.

It is a figure the SA National Institute for Occupational Health (NIOH) believes is a gross under-

estimate, given the scale of past mining and the ongoing exposure of communities to asbestos.

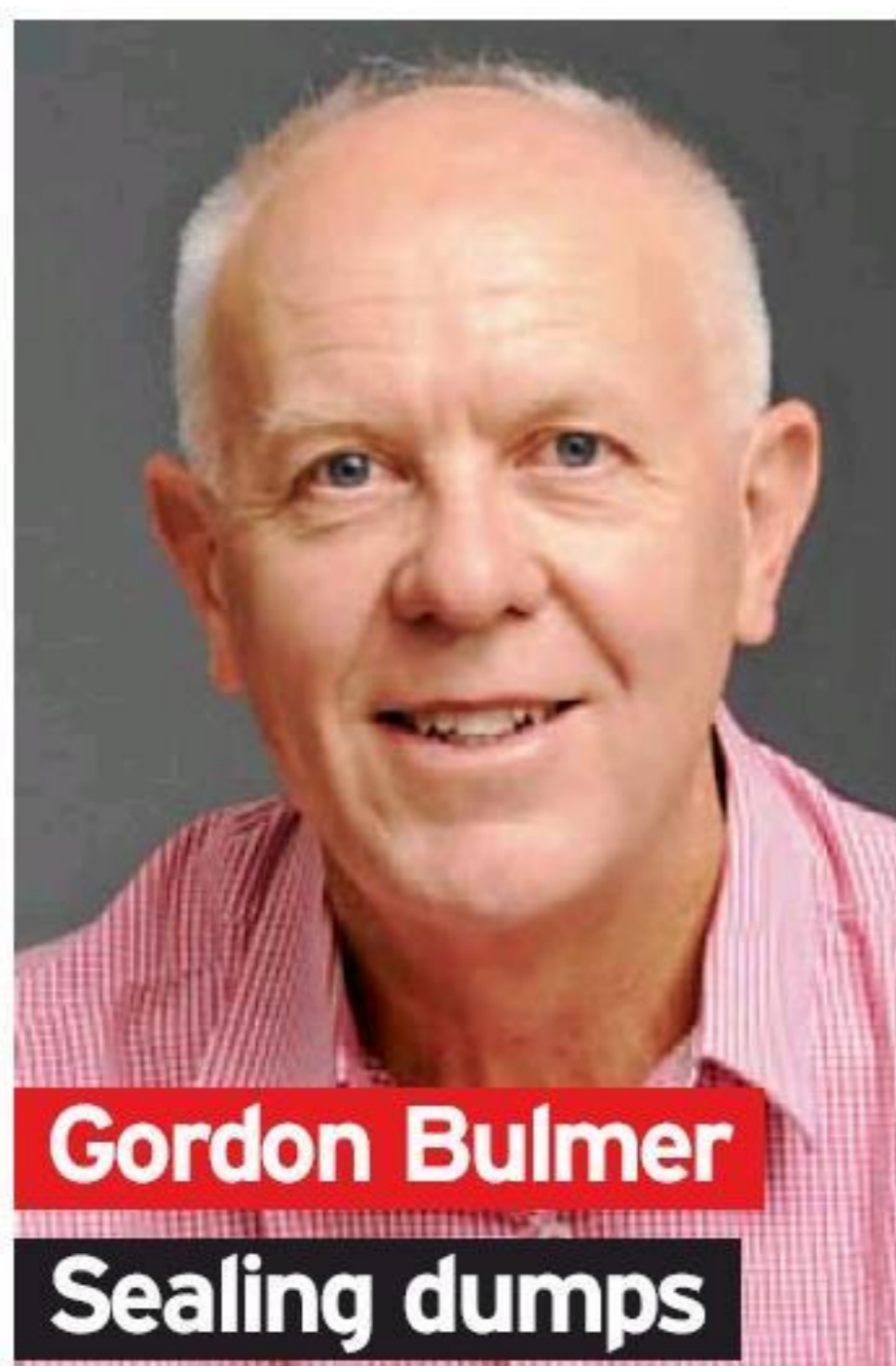
Seemingly supporting this assertion, the WHO puts annual asbestos-related deaths worldwide at over 100,000. Of these, 10,000 are in the US and 3,500 in the UK.

Even with the most effective rehabilitation, asbestos-related deaths will continue. "Projections are made but we still do not really know what is coming," says Jim Phillips, a senior researcher at the NIOH. "Mesothelioma's latency period is 30 years and that can even extend to 50 years."

Stafford Thomas
thomass@fm.co.za

CLARIFICATION

The Financial Mail (February 11-17) quoted former Passenger Rail Agency of SA CEO Lucky Montana saying a "rogue intelligence operation" was run against him. Among those accused of compiling a report on Montana was investigator Paul O'Sullivan. On viewing the contents of the report, it appears to be the consequence of an extensive set of interviews, rather than "intelligence gathering" as alleged by Montana. Neither does the report appear to be the fruit of electronic or physical surveillance. The report is with the police. ■



Gordon Bulmer
Sealing dumps