

Ennerdale collapse: Who is responsible for safety on landfill sites?

The collapse at the Ennerdale Landfill that claimed the life of a waste picker on 3 March 2023 begs a general review of safety and operational management at South Africa's landfills.



Image source: Tom Fisk from Pexels

This is according to environmental and landfill engineer Nash Dookhi, who is the KwaZulu-Natal Chair at the Institute of Waste Management South Africa.

"What I haven't seen in the media is a detailed investigation into why this tragedy occurred and what could have been done to prevent it," he says.

Legislation and regulations

Dookhi's concern is how landfill sites are being managed in accordance with applicable legislation and regulations, especially in terms of industrial health and safety.

South African waste is regulated by the National Environmental Management: Waste Act of 2008.

This legislation requires that every landfill owner obtains a waste management licence and in additional to the development, engineering and monitoring of the site, stipulates the requirements for operating and managing the site.

In addition to the waste management licence, these conditions continue to be guided and governed by the Minimum Requirements for Waste Disposal by Landfill, Second Edition 1998, from the Department of Water Affairs and Forestry. The general operations require that, on a day-to-day basis, waste that is tipped into the landfill should be shaped (that is, pushed together), compacted and covered, known as the cellular landfilling method.

In the case of the Ennerdale Landfill, the operator is Pikitup, the City of Johannesburg's official waste management company.

Are the requirements being fully implemented?

Dookhi, who has over 20 years' experience in waste management, says that landfill engineering is a complex discipline that considers various factors around landfill stability. These include the types of waste, compaction, moisture content, cover material used, leachate management and many other variables.

Properly managed, waste is inherently stable because certain waste types embedded in it, like plastics, cardboard and fibres, act as built-in natural reinforcement that provides it with solidity and an acceptable factor of safety.

"The fact that a collapse would not result from one day's worth of loose incoming waste suggests a longer-term neglect of the requirements," says Dookhi.

Are waste pickers even allowed at landfills?

Whether waste pickers are allowed inside a landfill site is not easy to answer.

The Minimum Requirements state that "the Department discourages waste reclamation at landfill sites", with no reclamation being permitted at hazardous waste sites at all.

However, if the licence holder opts to allow controlled reclamation at a general waste disposal site, they must seek permission on the application for their waste management licence or by amending an existing permit/licence.

This indicates that waste pickers' access depends on what is formally allowed in the site operator's licence and that their activities are effectively managed and controlled.

Regardless, as per the Minimum Requirements and the waste management licence, the responsibility for the safety of any reclaimers rests with the licence holder.

Landfill safety

That the site operator is wholly responsible for meeting the daily operational requirements of the landfill, including the safety of the waste pickers present, puts the ball directly in its court.

IWMSA calls for landfill operators to ensure they meet their waste management licence requirements and be guided by the Minimum Requirements in every regard, including their responsibility to those on site.

"We acknowledge that there is a role to be played by the waste pickers to promote the circular economy and further acknowledge that it can be difficult to control pickers eager to reach prime materials in newly arrived waste and encourage municipalities to provide effective support and management to the sites," says Dookhi.

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