

SEPA Technical Guidance Note

The Disposal in Landfills for Non-Hazardous Waste of Gypsum Wastes.

1.0 Background

In relation to the disposal of gypsum wastes, COUNCIL DECISION of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC states that, “non-hazardous gypsum-based materials should be disposed of only in landfills for non-hazardous waste in cells where no biodegradable waste is accepted”.

This is because the disposal of gypsum wastes with biodegradable wastes can lead to the evolution of hydrogen sulphide, which can be harmful to health.

2.0 Disposal of Gypsum Waste

Producers of gypsum waste should separate it for **recovery and recycling** wherever possible. Where this is not possible and wastes containing gypsum are sent to landfill, they must be deposited in a separate cell in which no biodegradable waste is accepted.

The design of a separate cell for gypsum wastes must be risk assessed and addressed on a site specific basis. The following principles apply:

- no contact with other wastes except suitable inert wastes used as cover material.
- the generation of leachate within the gypsum cell should be minimised.
- contact should be minimised between leachate arising from biodegradable wastes and that arising from gypsum wastes.
- the gypsum waste cell must not compromise the landfill gas and leachate management of the biodegradable waste cells.

3.0 Limits on Biodegradability of Wastes Deposited with Gypsum

The following limit values apply to wastes landfilled together with Gypsum based materials. The value for Dissolved Organic Carbon applies to a liquid to solid ratio of 10 litres/kilogram using the 2 stage CEN leaching test EN 12457/3.

Component	Limit Value
Dissolved Organic Carbon*	800 mg/kg dry substance
Total Organic Carbon	5%

* If the waste does not meet these values for dissolved organic carbon (DOC) at its own pH, it may be tested at L/S = 10 l/kg and pH of 7.5 to 8.0. If the result of this determination does not exceed 800 mg/kg, the waste may be considered as complying with the acceptance criteria for DOC. (A draft method based on prEN 14429 is available).