
SEPA Technical Guidance Note

Prior Treatment of Waste for Landfill

1.0 INTRODUCTION

1.1 Purpose of this Guidance Regulatory Context

This document provides guidance for SEPA Officers on the requirements of Regulation 12 (1) of the Landfill (Scotland) Regulations 2003 'the Landfill Regulations. This specific regulation will apply to a landfill sites on issue of a PPC permit. Any queries relating to this guidance may be made to the Central Waste Team.

1.2 Regulatory Context

Regulation 12 (1) of the Landfill Regulations requires that:

- “ 12. (1) The operator of a landfill shall ensure that the landfill is only used for landfilling waste which is subject to prior treatment unless-
- (a) it is inert waste for which treatment is not technically feasible; or
 - (b) it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.”

These requirements form the first test that must be applied as to whether or not a particular waste stream is to be treated prior to being landfilled.

Prior treatment itself includes many differing activities. Regulation 2(1) provides a definition of treatment as:

"treatment" means physical, thermal, chemical or biological processes (including sorting) that change the characteristics of waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery;

These prior treatments may be carried out either before acceptance to landfill installation or after acceptance to landfill installation. They however cannot be carried out as part of the landfilling operation (ie compaction after deposit at the landfill) as it is a requirement that the treatment has been undertaken prior to landfilling.

Prior treatment should not be carried out purely for the sake of achieving a treated condition. If treatment of a waste stream does not reduce the quantity of waste landfilled or the hazards of the waste to human health or the environment then it need not be undertaken.

In each case it is for the landfill operators, as part of their waste acceptance procedures, to present evidence as to what pre-treatment has been undertaken under the broad definition of treatment. Alternatively the operators must present evidence to justify why prior treatment of any specific waste stream does not lead to the reduction in quantity or the hazards which the waste poses to human health or the environment. This by necessity must be based on a waste stream specific and landfill specific basis.

For example producers of similar wastes may dispose of them in differing quantities or physical condition which in one situation may mean that treatment can reduce the quantity or hazard but in another situation would lead to no beneficial change. Furthermore depending on the classification of the landfill and compatibility of any specific waste stream with the overall types of waste being accepted prior treatment may provide benefit in one situation but not in another.

2.0 ASSESSMENT OF PRIOR TREATMENT

The vast range in variations of waste streams arriving at landfills means that it is not possible to derive prescriptive set rules for different waste types. SEPA officers should assess landfill operators proposals and operational records against the following general principles.

Typically it is expected that for each waste stream operators should consider the available treatment options that could apply to that type of waste and assess the ability of those treatment options to deliver the objectives of prior treatment. The processes that can be applied in treating a waste are very broad covering physical, thermal, chemical or biological processes (including sorting). Clearly for any specific waste stream many treatment systems can be screened out from detailed consideration. It is anticipated that detailed consideration would only be required for those most likely to meet the prior treatment objectives. In order to treat the waste the chosen process must meet any one of 4 beneficial objectives prior to landfilling the waste. These beneficial objectives are:

1. to facilitate its handling prior to landfilling
2. to enhance recovery prior to landfilling
3. to reduce its volume prior to landfilling
4. to reduce its hazardous nature prior to landfilling

The treatment process will be entirely waste stream specific and may be applied at any point from the point of production of the waste though to deposition within the landfill. In many cases the waste producer may be carrying out treatment as part of their ongoing operations (ie sorting of waste into segregated streams). Many waste streams are subject to some form of treatment during the normal procedures of production, collection and transport. It is therefore not anticipated that significant changes to the existing practices will be necessary.