

## Guidance on Closed Landfills Regulated under Pollution Prevention and Control

### Background

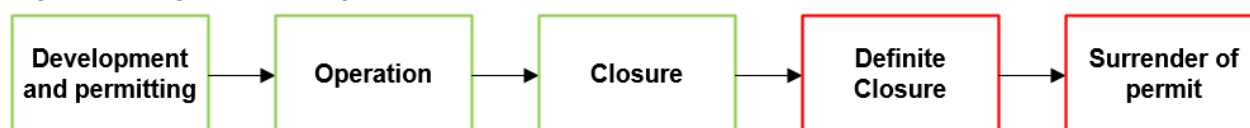
Implementation of the Landfill Directive via the Landfill (Scotland) Regulations 2003 within the Pollution Prevention and Control (PPC) Regime (2000 and 2012 Regulations) established operational landfills classified as Hazardous, Non-Hazardous or Inert.

The progressive lifecycle of a landfill from the operational phase, to closure then definite closure and subsequently aftercare (shown diagrammatically below in Figure 1) requires appropriate regulation before the relevant permit can be surrendered.

Although Landfill PPC Permits have been issued since 2003/4, a number of sites are now approaching closure, whether by choice, exhaustion of void space or influenced by reducing amounts of waste available for landfill as diversion targets and bans impact on wastestream availability.

This guidance note provides information on actions required to vary the appropriate PPC Permit to ensure that the closure of the site is satisfactory, implemented and thereafter enforceable under the conditions of the Permit.

**Figure 1. Progressive lifecycle of a landfill**



### Guidance

Regulation 17 of the Landfill (Scotland) Regulations 2003, (as amended), details the terms of closure allowing that in the first instance, the closure procedure shall begin (a) when the relevant conditions specified in the landfill permit are satisfied and (b) when SEPA approves the initiation of the closure procedure following a request from the operator. There is also an allowance for SEPA to decide that the closure procedure should begin, which is laid out within the terms of a Closure Notice served under Regulation 18.

Relevant conditions in permits will typically revolve around:

“A Closure and Aftercare Plan shall be submitted 18 months in advance of the anticipated date of closure for approval by SEPA and prior to entering into definite closure”. Or

“The Closure and Aftercare provisions set out in the Management Plan shall be complied with”.  
And

“The closure procedure shall only commence if either (a) the Operator has written to SEPA requesting initiation of the closure procedure and written approval of the request has been received from SEPA or (b) SEPA has issued a reasoned decision to the Operator set out in a closure notice served on the Operator by SEPA in accordance with Regulation 18 of the 2003 Regulations”

In instances where Closure and Aftercare Plans have been received teams should assess the submissions to ensure that the following requirements have satisfactorily been addressed:

1. Compliant interaction between last disposal of waste, capping provision and subsequent restoration.
2. Provision and maintenance of necessary environmental protection infrastructure especially that relating to leachate and landfill gas.
3. Provision and location of compliant leachate, groundwater and landfill gas monitoring boreholes.
4. Adequate and compliant frequency of monitoring.
5. Provision of monitoring results.
6. Provision of and compliance with Control/Trigger Levels.
7. Adequate and compliant capping standard.

In simplistic terms, ‘closure’ cannot be an isolated action but connects a number of processes. The decision to close demands that waste imports for disposal must cease and therefore the landfill cell(s) or overall landform must be approaching an acceptable height, with acceptable slopes and in compliance with original Planning permission. Wastes imported for disposal must be capped to the standard expressed in the Permit and above the cap there must be the creation of a designed restoration layer to protect the cap, shed water, comply with planning permissions and return the site to the agreed restored state; this may be agriculture, open space or planting and thus the depth of the restoration layer will vary.

Restoration layers may be non-waste materials or there is the potential for waste to be used in restoration provided they are suitable from a composition viewpoint and in terms of depth/volume. Use of waste in restoration in any depth above 2m will generally be rejected.

Where the current PPC conditions and associated management plan allows, the Closure and Aftercare Plan should be incorporated into the management plan without the requirement for modification of specific PPC conditions.

The Closure phase will continue until such time as all restoration work has been carried out, all monitoring infrastructure including the determination of suitable monitoring and compliance points is established and maintenance conditions are developed for any necessary environmental protection measures.

Beyond this point, the landfill might be eligible for consideration as definitely closed. In order for an Operator to progress to the definite closure stage, an application for a variation of the permit to alter conditions relating to waste acceptance etc. must be submitted to SEPA along with reports on the matters detailed above. Where SEPA assesses the contents and confirms the veracity of the reports including by conducting a final on-site inspection then SEPA will vary the permit to the extent required and serve a Definite Closure Notice. Please note that the current charging scheme refers to closed landfills regulated under PPC in rows 12080, 12090, 12100 and 12110. These references should be taken to refer to landfills that have achieved definite closure in terms of this guidance.

It must be emphasised that following definite closure, after care procedures prescribed within the conditions of the Permit shall ensure that (a) the operator remains responsible for the maintenance, monitoring and control for such period as SEPA determines is reasonable taking into account the time during which the landfill could present hazards<sup>1</sup>; (b) the operator notifies SEPA of any significant adverse environmental effects revealed by the control procedures and takes the remedial steps required or approved by SEPA; and (c) the operator is responsible for monitoring and analysing landfill gas and leachate from the landfill and the groundwater in its vicinity for as long as SEPA considers that the landfill is likely to cause a hazard to the environment.

A template Definite Closure Notice is available.

The current Charging Scheme requires modification to properly reflect the position for closed PPC landfills and work on this is underway.

In cases where a satisfactory submission of a Closure and Aftercare Plan has not been received for the site, or if the submission cannot be incorporated into the existing management plan, teams should arrange for the Permit to be varied as necessary or for other enforcement action to be taken. If required, assistance on the review of the closure and aftercare plans and variation of PPC Landfill Permits can be provided by contacting the National Operations Waste Unit.

#### *Disclaimer*

**This guidance applies only in Scotland. The terms of this guidance may be subject to periodical review and be changed or withdrawn in light of technological or scientific developments, regulatory or legislative changes, future government guidance or experience of its use. SEPA reserves its discretion to depart from the guidance outlined here and to take appropriate action to avoid any risk of pollution or harm to human health or the environment.**

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<sup>1</sup> Regulation 13 (c) of the Landfill (Scotland) Regulations 2003 etc provided that the charges for waste disposal should cover the estimated costs for the closure and aftercare of the landfill site for a period of at least 30 years from its closure and thus demands examination of Financial Provision and Expenditure Plans.