

**Guidance on surrendering a landfill Waste Management Licence**

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# Surrendering a landfill Waste Management Licence

The following document is an introductory guide to support landfill operators and their consultants when you consider that you can meet the obligations to surrender your Waste Management Licence. This document sets out the principles and a structured process to follow but is not a definitive guide given that there will be many site-specific considerations. SEPA Officers will be happy to engage with you for pre-application discussion, but we would expect, as a minimum, that you could enter that conversation with a demonstration that you have followed the steps set out in this guide and provide a written report, with supporting evidence, to justify that surrender is a realistic proposition.

This guidance does not apply to landfills permitted under the Pollution Prevention and Control (PPC) regime.

## The basic principles

Section 39 of the Environmental Protection Act 1990 (as amended) defines the circumstances in which a licence holder can surrender their licence. Department of the Environment Waste Management Paper No 26A, Landfill Completion (ISBN 0 11 752807 2), published 1993, remains the reference guidance document for waste management licensed landfill site surrender, but this is now out of print and may be difficult to find, therefore the key points of that document are summarised in this guide. Some points have also been updated given that we now have an additional 30 years of knowledge of landfill management, behaviour and technology.

To surrender a Waste Management Licence SEPA must be satisfied that the condition of the land, so far as the condition is the result of the use of the land for the treatment, keeping or disposal of waste, is unlikely to cause environmental pollution or harm to human health. This means you must consider all waste management activities which have happened at the site, not just the landfill. In practical terms, for the landfill itself, this will mean you need to demonstrate no ongoing, unacceptable impact on groundwater, surface water, the land and air.

You will need to consider:

* The quantity and types of waste present.
* The quality and quantity of leachate present.
* The flow and concentration of gas.
* The potential for polluting leachate or gas to be generated in future.
* The potential for leachate and gas to reach sensitive receptors.
* The possibility of physical instability of the waste or retaining structures.
* The presence of particular problem wastes which could present a hazard in the future.

The site must be closed, capped and restored, with no ongoing management required.

We recommend that you engage the services of a suitably qualified and experienced environmental person or organisation to assist you with producing the documents necessary to support any surrender application.

## Closed landfill project action plans

In early 2016 SEPA completed a programme of waste management licensed landfill audits and issued action plans to all licence holders. These action plans were a road map to support operators in understanding the steps they needed to take before applying for surrender. We would strongly recommend that you refer to these action plans before approaching SEPA for further discussion. You should include it, and demonstrate that you have completed all actions, as part of your submission to SEPA.

## A risk-based approach

The environmental risk presented by a landfill is strongly linked to the types of waste deposited. Sites which received truly inert material will present limited risk and therefore less supporting information will be necessary to justify that surrender is appropriate.

**Question 1. Can you demonstrate what types and quantities of waste were deposited at your landfill?**

Evidence could include:

* Waste transfer notes or weighbridge records showing all waste deposits.
* The findings of an intrusive site investigation, such as trial pits or drilling cores. Note that you will need to demonstrate that the investigation fully characterises the extent of waste deposits and should be backed up with photographic evidence and/or excavation logs.

Most sites are unlikely to have received only truly inert wastes. Where non-hazardous or biodegradable wastes may have been deposited, or you cannot demonstrate that only inert wastes were deposited, you then need to consider leachate and landfill gas. Sites should have had an adequate monitoring network in place throughout their operational and aftercare phases, including in-waste monitoring, external gas and groundwater boreholes and surface water monitoring points.

**Question 2. Is your monitoring network adequate?**

Things to consider include:

* Do you have in-waste monitoring for leachate and landfill gas at sufficient locations?
* Do you have external gas boreholes which are suitable in number and spacing to identify gas migration if it was occurring?
* Do you have adequate external groundwater monitoring boreholes suitably located up- and down-gradient of the site to assess impact on the water environment?
* Do you have adequate monitoring of surface waters to identify pollution?

If your monitoring network is not adequate SEPA is unlikely to be able to consider an application to surrender. It may be possible to consider an incomplete data set, for example if only some borehole data is available, but that will be site specific. It will be for you to justify that what you have provided to us is adequate. The number of in-waste leachate sampling points is set out in Table 1. As a minimum, we expect 1 up-gradient and 2 down-gradient groundwater monitoring boreholes, but this number can be higher if the hydrogeological regime is complex or there are sensitive receptors nearby. The number of in-waste gas boreholes required is 2 per hectare of landfill with a minimum of 4. The number of external gas monitoring boreholes will be site specific but should be located to identify migration towards any sensitive receptors identified.

Where a network is not adequate, or there is insufficient monitoring data available, it may be reasonable to support your submission with other evidence, for example, intrusive site investigation reports, surface water monitoring, or data from drones with appropriate sensors.

Where a monitoring network is to be installed, upgraded or replaced we recommend engaging with us to ensure it will be fit for purpose. Where new monitoring is required, we would usually expect a minimum of 12 months’ data collection before considering the data set as part of a submission to us. This allows us to see trends and behaviour across all four seasons.

**Table 1. Number of in-waste leachate sampling points**

| **Site Area (ha)****From** | **Site Area (ha)****To** | **Number of Sampling Points** |
| --- | --- | --- |
| 0 | 5 | 3 |
| 5 | 10 | 4 |
| 10 | 25 | 6 |
| 25 | 50 | 9 |
| 50 | 75 | 11 |
| 75 | 100 | 13 |
| 100 | 125 | 15 |
| 125 | 150 | 16 |
| 150 | 175 | 17 |
| 175 | 200 | 18 |
| 200 | 250 | 19 |
| 250  | >250 | 20 |

**Question 3. Do you have sufficient monitoring data?**

The parameters and frequency of monitoring expected, as set out in WMP26A is:

* Surface water: Quarterly samples for pH, temperature, electrical conductivity, dissolved oxygen, ammoniacal nitrogen, chloride and chemical oxygen demand.
* Groundwater: Initially quarterly, then 6 monthly after the first year, water level (metres above Ordnance Datum), pH, temperature, electrical conductivity, dissolved oxygen, ammoniacal nitrogen, chloride, sulphate, total alkalinity, total organic carbon, total oxidised nitrogen, metals (Na, K, CA, Mg, Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn).
* Leachate: Monthly samples for leachate level (metres above Ordnance Datum), pH, temperature and electrical conductivity. Quarterly samples, as monthly plus ammoniacal nitrogen, chloride, sulphate, total alkalinity, biochemical oxygen demand, chemical oxygen demand, total oxidised nitrogen, total organic carbon, sodium, potassium, calcium, magnesium. Annually, as quarterly plus metals (Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn.
* Landfill Gas: Weekly to 6 monthly depending on site-specific circumstances for methane, carbon dioxide, oxygen, atmospheric pressure, gas pressure and meteorological data.
* An annual survey for settlement.

In addition, where non-inert waste was deposited, SEPA expects you to provide analysis for trace organic contaminants such as total petroleum hydrocarbons (full suite as set out in TPH Criteria Working Group guidance), volatile organic compounds (VOC) and soluble VOC’s. This list may be widened to include pesticides, PFAS, PCB’s etc depending on site specific circumstances.

**Question 4. What does your monitoring data set tell you?**

SEPA expect to see an interpretive report which includes a conceptual site model that explains what your data is showing, and a justification for why this demonstrates that there are no unacceptable risks to the environment or human health, now or into the future. The report should demonstrate consideration of the basic principles, namely:

* The quantity and types of waste present
* The quality and quantity of leachate present.
* The flow and concentration of gas.
* The potential for polluting leachate or gas to be generated in future.
* The potential for contaminants to reach sensitive receptors.
* The possibility of physical instability of the waste or retaining structures.
* The presence of particular problem wastes that could present a hazard in the future.

You should pay particular attention to justifying any are areas of uncertainty or any deviations from the standard requirements set out in this guide.

It may be reasonable for monitoring parameters and frequencies to vary from those set out in WMP26A. Any deviations will need to be justified by you, or clear evidence provided if they were agreed with SEPA previously. Your interpretive report should compare your data to licensed limits, relevant standards and trigger levels using risk assessments and/or modelling.

## How and when to engage with SEPA

When you have considered the questions and points set out in this guide, please provide your draft report and supporting information to SEPA via landfill@sepa.org.uk. A member of our regulatory team will get in contact with you to provide initial feedback and arrange further discussion if we consider that is necessary.

When we consider that there is likely to be sufficient justification for surrender, we will let you know and will explain how to make a formal application to SEPA. You have the right to make a formal application at any time, but it is unlikely that we could make a positive determination without consideration and demonstration of all aspects of this guide. We therefore recommend early and open pre-application engagement.

It is not possible to provide definitive timescales for the surrender process discussed in this guide – that will depend on the quality of your submissions, pre-application engagement with us and any additional work, like more monitoring, that may be required from you.

Once SEPA has confirmed your application is duly made, the statutory determination period is 3 months.
Application forms and details of the current fees and charges are available on SEPA’s website.

Licence subsistence fees remain applicable until SEPA has determined an application to surrender and issued a completion certificate.

If you would like this document in an accessible format, such as large print, audio recording or braille, please contact SEPA by emailing equalities@sepa.org.uk