

Non-hazardous landfill permit consultation

November 2019

Every day SEPA works to protect and enhance Scotland's environment, helping communities and businesses thrive within the resources of our planet.



We call this **One Planet Prosperity**

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<http://contactscotland-bsl.org/>

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Overview

As part of SEPA's work to deliver [One Planet Prosperity](#) we have committed to simplifying our permits across all sectors. Our [landfill sector plan](#) published in November 2018 further commits to developing landfill permits with clearer obligations. The first of the landfill permits has now been completed – a simple, outcome-based permit for non-hazardous landfills.

In this consultation, we will introduce you to the principles of our permit reform process, outline the key changes to the non-hazardous landfill permit and our regulatory approach, and finally, provide you with an opportunity to provide feedback on key areas.

Why we are consulting

Getting feedback from our communities, partners and stakeholders is important and your input is critical to the success of our new permit. If you think we have got something wrong, 'missed the mark', or if anything is unclear, now is your opportunity to let us know.

Following our consultation process, we are aiming to move all existing permits to the new template over the next 18 months, with an initial focus on those sites SEPA currently considers a priority. If you are a landfill operator, you will be contacted by SEPA prior to initiation of this process.

How to respond

You can respond to this [consultation online](#) or by sending your comments on the proposal to:

Scottish Environment Protection Agency
Angus Smith Building
Eurocentral
Holytown
North Lanarkshire
ML1 4WQ

Email: permitreform@sepa.org.uk

Responses should be submitted to us by 28 February 2020.

Simplification principles

A core set of simplification principles have been established to direct the permit simplification process and ensure consistency of approach. SEPA will use these principles when simplifying all permits across all sectors. An overview of the core principles and how these will be delivered in all simplified permits is provided below:

1. Simple, outcome focused permits will be clearer and more powerful.
2. Permits will be enforceable
3. Permits will be written in simple, plain English that everyone will understand from the general public to the Sheriff in the court.
4. Permits will contain the minimum number of conditions to achieve the environmental outcomes of: a. preventing harm; b. preventing incidents and accidents; c. using resources sustainably
5. Permits will put the responsibility on to the operator for environmental management.

Factors taken into consideration

In addition to our simplification principles, we have also considered other factors to ensure that the permit is legally correct and robust. These include:

- The requirements of The Landfill (Scotland) Regulations 2003. The legislation has in some aspects limited the application of our permit simplification principles.
- The future of the sector, including the future biodegradable municipal waste (BMW) landfill ban and safeguarding the remediation and restoration of landfills.
- Compliance levels at operational landfills, which are consistently amongst the lowest of all regulated sectors in Scotland. SEPA receives a high volume of complaints from the public about landfills – mainly regarding odour and litter.

What does the permit control?

Some of the main items the permit controls are:

- **Waste acceptance:** the types and quantity of waste coming into the landfill. Permit conditions ensure that only waste the landfill is designed to receive will be deposited.
- **Landfill gas:** permit conditions ensure that the authorised person provides a landfill gas management system which manages, collects, extracts and disposes of, or utilises, gas generated by the decomposition of waste. A gas management system is designed to:
 - I. prevent nuisance odours;
 - II. prevent subsurface migration of gas which may lead to explosions;
 - III. safely dispose of greenhouse gases;
 - IV. maximise the benefit that can be gained from efficiently harnessing landfill gas to generate electricity.
- **Leachate:** permit conditions ensure that the authorised person provides a geological barrier and leachate collection system that ensures that the surrounding environment is protected. Where treated leachate is discharged to surface water, i.e. rivers and streams, permit conditions ensure that the receiving waters are not polluted by limiting potentially polluting components of the discharge.
- **Nuisance:** impacts from odour, dust, noise, litter, birds, vermin and insects and aerosols that may arise from the operation of the landfill are all controlled via permit conditions.

Main changes

Future-proofed terminology

We have included terms in the permit to be consistent with those in the Regulatory Reform (Scotland) Act 2014 and the Environmental Authorisations (Scotland) Regulations 2018.

These regulations aim to deliver an integrated authorisation framework which will integrate, as far as possible, the authorisation, procedural and enforcement arrangements relating to:

- water;
- waste management;
- radioactive substances;
- pollution prevention and control.

The integrated authorisation framework (IAF) is being introduced in a phased manner, and currently, the regulations **only apply to** radioactive substances. However, in the future, all landfill permits will move to this framework, so we are future-proofing the current template as much as possible to minimise the changes needed when this happens.

Previous legal term	New legal term
The Operator	Authorised Person
Pollution	Environmental Harm

You can find more information on IAF on the SEPA website:

<https://www.sepa.org.uk/regulations/how-we-regulate/environmental-authorisations-scotland-regulations-2018/>

Management plans

One of the guiding principles of permit simplification is to put responsibility on to the operator - or authorised person - for environmental management. We believe that the authorised person is the best person to manage their site in a way that meets the outcome-focussed conditions of their permit. We fully expect responsible operators to have appropriate plans and procedures in place to manage their sites effectively, and we may ask to see these as part of our inspection process, however we will no longer require these to be approved by us.

There are some instances in the landfill permit where we will still require the submission and approval of plans. This is because the use of plans has been identified as the most effective means of regulation for these areas. The restoration plan (section 5.3) will be formally approved by SEPA and fully referenced in the permit. Once referenced in the permit the plan becomes an extension to the permit and legally binding, therefore if the operator wishes to apply to change the plan they must apply for a variation to the permit. If SEPA does not agree to the variation, the operator may appeal the decision.

Consultation question 4:

Do you agree that the removal of SEPA approval of site management plans in the permit is the way forward?

Technical competence

It is expected that sites will be managed and supervised by a technically competent person, however there will no longer be a condition in the permit stipulating this. The rationale is that there are already sufficient controls around technical competence at sites. SEPA can assess technical competence when:

- a new permit application is received.
- the management of the permitted activities comes into the hands of a different person.
- an application for a substantial change of the permit (which could mean that the site had ceased to be in the hands of technically competent persons) is received.
- an application for a full or partial transfer of a permit is received.

Additionally, the failure to comply with permit conditions could bring into question whether SEPA feels the authorised person is technically competent or not. SEPA has legislative powers to suspend a permit if it considers that an authorised person has ceased to be technically competent.

Consultation question 5:

Do you agree with this approach to technical competence?

Authorised wastes

Section 3.2 Waste types

Biodegradable municipal waste (BMW) has been added to the list of prohibited wastes in order to future proof our permits for when the ban on BMW comes into effect. Landfills currently authorised to accept BMW waste will still be permitted to accept BMW until that time.

Further information on the BMW ban is available on the SEPA website:

<https://www.sepa.org.uk/regulations/waste/landfill/biodegradable-municipal-waste-landfill-ban/>

Consultation question 6:

Is it clear from Table 2 in the permit what type of waste is allowed and not allowed in the landfill?

Section 3.3 Waste acceptance

In 2005, the Scottish Ministers issued a direction to SEPA requiring that all landfill permits have conditions regarding the criteria and procedures for the acceptance of waste at landfills. We have taken some of the more straightforward elements of the direction – namely the requirement to keep a register - and included this in the permit. For the more complex aspects we are developing a guidance document which will clearly explain the authorised persons obligations for waste sampling and testing – this will be called “*SEPA Document, WAC – How to Comply*”.

The full text of the legal direction is available on the Scottish Government website:

<https://www.gov.scot/publications/criteria-and-procedures-for-the-acceptance-of-waste-at-landfills-scotland-direction-2005/>

Consultation question 7:

What are your views on this approach?

Consultation question 8:

As an operator, or waste producer, do you think a guidance document would be helpful?

Schedule 5 - Construction quality assurance

Construction quality assurance (CQA) traditionally has been included in our landfill permits to ensure that all containment and capping works, and installation of leachate or permanent landfill gas management infrastructure, is completed to a high standard that ensures protection of the surrounding environment.

Our permit requires that the authorised person submits a CQA plan to SEPA prior to commencement of works; that the works are carried out in accordance with that plan and that a report is submitted to SEPA along with certification from a qualified, independent engineer, that the works have been completed in accordance with the plan. In most existing permits there is no requirement to obtain SEPA's approval of the plans before work commences, however SEPA audits these plans and will intervene if we believe the proposed works will be insufficient to protect the environment. Although SEPA plays an auditing role in the CQA planning process, it is solely the responsibility of the authorised person to ensure that CQA plans and the works carried out are of a sufficiently robust standard to ensure the adequate environmental protections. Because of the critical nature of these works and the recognition that if something goes wrong it is often too late and too costly to remedy the issue easily, SEPA does not plan on changing our existing process.

Consultation question 9:

Do you agree with how SEPA approaches construction at landfills?

Consultation question 10:

Do you think we should have more or less oversight of construction at landfills?

Landfill gas

These sections of the permit deal with landfill gas management and aim to ensure that communities and the environment are protected from emissions of landfill gas.

In the permit, we will require the provision of a landfill gas management system and we will set site-specific limits for gas levels in perimeter boreholes outwith the waste mass to ensure gas is not migrating from the landfill at levels that could be unsafe.

Section 4.1 Landfill gas management system

This condition requires the provision and maintenance of a landfill gas management system for every cell or phase to manage landfill gas so it does not have a detrimental effect on the environment or local communities. The system should monitor, collect, extract and dispose of, or utilise, landfill gas arising from the site. It is expected that the system is established and managed in accordance with any relevant guidance and that the authorised person maintains documented management procedures, which SEPA may audit.

Section 8.1 Perimeter landfill gas compliance limits

Currently we use “trigger level” reporting for the detection of gas migration outwith the landfill waste mass. When a specified level for a specified parameter is breached, the authorised person is required to inform SEPA, initiate emergency measures and submit a report to SEPA detailing the proposed remedial actions, however a breach of the trigger level does not result in a breach of the condition.

In the new permit, we have renamed ‘trigger levels’ as ‘perimeter landfill gas compliance limits’. If the limit is breached, it is treated as an environmental event and should be reported to SEPA as per the ‘environmental event’ procedure in Section 11 of the permit. The breach of the limit will also be classed as a breach of permit condition, and assessed in accordance with SEPA’s compliance assessment scheme. Where there is sufficient historic background gas data available for the site, new site-specific and borehole specific limits will be added to permits during the permit variation process. These limits will be reflective of environmental conditions at the site and therefore more useful for identifying where there is an environmental impact.

Consultation question 11:

What do you think of our proposed approach to landfill gas regulation and protection of the surrounding environment at landfill sites?

Leachate and groundwater

These sections of the permit deal with leachate management and the protection of groundwater from leachate. In the permit, we will require the provision of a leachate management system and require monitoring of leachate and groundwater levels and quality. We will also set limits for leachate levels within leachate wells in the landfill in addition to site-specific groundwater compliance limits across the borehole monitoring network around the landfill.

Section 4.2 Leachate collection system

This condition requires the provision of a leachate collection system for every cell or phase of the landfill to ensure leachate accumulation within the landfill is kept to a minimum. The authorised person is expected to ensure that the design, construction and location of the network is in accordance with any relevant guidance and is sufficiently robust to ensure that leachate is extracted from the waste mass so it can be treated (either on or off-site) and safely discharged. It is further expected that the authorised person maintains documented management procedures which SEPA may audit.

Section 8.2 Groundwater compliance standards

We currently use two-tier standards to regulate impacts on groundwater quality in our permits - “control” and “trigger” levels. Control levels don’t generally appear in the permit, but they are approved by SEPA.

The two reporting requirements sometimes caused confusion for sites. Additionally, sometimes the trigger and control levels in the permit were generic or out of date and not reflective of conditions at each individual site or borehole.

We intend to move to one standard in the new permit which makes it clear to operators the standard they must comply with and simplifies reporting. The requirement to report breaches of control levels has been removed from the permit – although it is still expected that sites will continue to use control charts to monitor trends at their sites. We have renamed ‘trigger levels’ as ‘groundwater compliance limits’. A breach of these will result in significant adverse environmental effect. These limits will be site-specific – and often borehole specific - based on published standards and/or historic groundwater monitoring data. Where existing datasets allow, we will also take into account background water quality

and the impact of historic unlined phases of landfilling when setting these compliance standards. The new standards will be inserted into each permit as it undergoes the permit review process. If a limit is breached, it will be considered a breach of the condition and reported to SEPA as per requirements in Section 11 of the permit “Environmental events”. The breach of the limit will be assessed in accordance with SEPA’s compliance assessment scheme. This approach reinforces the need for the operator to monitor and assess trends in groundwater at their site and to intervene to ensure these compliance limits are not breached.

Consultation question 12:

What do you think of our approach to leachate regulation and groundwater protection in the permit?

Capping and restoration

Section 5.2 Capping

All landfills will require a cap, which forms a barrier and serves to minimise ingress of water to the landfill to reduce leachate production, control landfill gas emissions from the landfill and windblown materials from escaping from the site. The capping system should contain a low permeability/sealing layer, a surface water drainage system and cover soils.

These are new conditions designed to control capping at sites and prevent environmental harm. Guidance and standards on capping will be developed to accompany these conditions.

Consultation question 13:

Are you clear on what these conditions are asking the operator to do?

Consultation question 14:

As an operator, do you anticipate any difficulty complying with these conditions?

Section 5.3 Restoration

Landfill restoration is traditionally the placement of waste soils or other approved materials above the engineered cap. This is emplaced for a number of reasons, including the desire to return the land to an appropriate use, like grazing or forestry, to ensure the cap is appropriately protected, to improve visual amenity and minimise surface water run-off. Waste materials used must be suitable for completing the planned restoration and must not be used in excessive quantities otherwise the activity may be classed as waste disposal, and subject to landfill tax.

Restoration plans will be formally agreed with SEPA, referenced in the relevant condition and as such will become an extension to the permit and legally binding. The decision to include an approved plan in the permit was taken because restoration is site specific, and it would be difficult to write standard conditions that could be used for all sites.

Consultation question 15:

What do you think of our proposals regarding restoration plans?

Environmental monitoring

Section 7.1 Environmental monitoring plan

Monitoring of landfill gas, leachate, groundwater and surface water (if present) is required throughout the operational phase of the landfill and following closure of the landfill. Details regarding monitoring of the landfill following closure will be contained in the SEPA approved closure plan. For monitoring during the operational phase, we intend to introduce an environmental monitoring plan (EMP), written by the authorised person and approved by SEPA. This will take the place of specific conditions related to monitoring in the permit. The plan will be fully referenced in the permit (Schedule 7) and as such is an extension to the permit and legally binding.

The EMP will focus solely on monitoring required for compliance with the environmental limits set in the permit (Schedule 8) as well as any additional requirements set down in legislation. However, the authorised person should undertake monitoring in excess of what is detailed in the EMP. The purpose of this is to assess the performance of key infrastructure and to allow the early identification of any risk or unexpected performance that may lead to non-compliance with permit conditions (which do not have a direct compliance limit) or impact the environment. This monitoring includes monitoring:

- to ensure the efficiency and effectiveness of the landfill gas management / extraction system;
- to ensure the effectiveness of the leachate collection system;
- to ensure the correct operation of the leachate treatment system;
- required for Directly Associated Activities.

Guidance on the required content of the monitoring plan is available as part of this consultation and contains information such as:

- landfill gas, leachate and groundwater borehole details (location, number, spacing);
- sampling details (parameters; frequency; sampling locations);
- details regarding how samples are collected, handled and analysed.

Consultation question 16:

What do you think of our proposal to have an environmental monitoring plan (EMP) for the landfill?

Consultation question 17:

Is it clear from the EMP guidance document what is required in the EMP?

Section 8.3 Treated leachate effluent

One of the key actions from our One Planet Prosperity - Our Regulatory Strategy is the implementation of the Regulatory Evidence Strategy, which provides a framework for our approach to collecting information about the activities we regulate.

Part of this approach is to increase the proportion of routine evidence collected by operators at their own sites. Operators performing authorised activities will have an obligation to monitor and report to SEPA in support of the regulation of those activities. We will continue to determine compliance from the evidence submitted to us. Operator monitoring is a very useful and important tool that will allow us to re-allocate some of our existing monitoring resource to focus on the activities that are causing or are likely to cause the greatest environmental harm.

Where treated leachate effluent is discharged to the water environment, monitoring of the discharge is essential to ensure the discharge of any treated leachate does not exceed the compliance limits (as detailed in the permit). Currently SEPA undertakes compliance limit monitoring of any discharge of treated leachate effluent to the water environment.

In line with SEPA's future regulatory ambitions it is SEPA's intention that the responsibility for compliance limit monitoring for treated leachate effluent discharges will be passed to the operator. This transfer of responsibility would represent a transition to 'full' operator monitoring for the landfill sector. Under this framework SEPA would perform an audit sampling role, taking fewer samples at randomised intervals to validate the findings of operator monitoring.

To facilitate the transition of this responsibility, the development and agreement of a sampling protocol will be necessary. It is expected that this protocol would be developed in coordination with the landfill sector.

Timescales for the transition to 'full' operator monitoring have not yet been finalised and will be informed by feedback received during this consultation.

Further details on SEPA's regulatory ambitions for operator monitoring can be found in SEPA's [Regulatory Evidence Strategy](#).

Consultation question 18:

Do you agree with the planned future transition to 'full' operator monitoring for the landfill sector?

Consultation question 19:

What lead / development time do you estimate would be required prior to this transition?

Consultation question 20:

Do you foresee any benefits or issues?

Section 9.1 Nuisance

This section of the permit deals with nuisance arising from operations on the landfill. The potential nuisances controlled via the permit include odour, dust, noise, litter, aerosols and birds, vermin and insects.

As is the case already, operators will be required to prevent where possible, or at least minimise nuisance (9.1.1.) – allowing flexibility for sites to tailor their infrastructure and processes as required. Our method of quantifying odour nuisance is legally robust and enforceable, so our odour control condition remains the same (9.1.2). For other nuisance parameters we have added new conditions which provide for instances where efforts are being made to minimise nuisance but there remains a significant impact on the local community. (9.1.2 – 9.1.6).

Consultation question 21:

Do you think our conditions around nuisance are robust enough to protect the local community?

Consultation question 22:

Do you think our proposed approach is fair to operators?

Schedule 11 Closure and aftercare

When the decision to close a landfill has been taken – the operator is required to submit a revised 'closure and aftercare plan' (a preliminary plan will have been submitted during the initial application stage, but this is likely to be out of date). The plan should deal with items such as final capping, restoration and ongoing environmental monitoring.

Post-closure, landfill permits will undergo a review, and closure plans will be formally agreed with SEPA and referenced in the relevant condition in the reviewed permit meaning the plan is an extension of the permit and legally binding.

There are significant business pressures on the landfill sector, primarily driven by decreasing waste inputs which has been driven by growing recycling rates and re-use of wastes, and the upcoming ban on the landfilling of biodegradable municipal waste (BMW). It is recognised that there is a risk of site abandonment, where site closure procedures are unlikely to be followed, so a new condition around closure has been added (11.1.1) which seek to address these concerns.

Consultation question 23:

Do have any comments on our new closure procedure condition?

Permit

Consultation question 24:

Do you have additional comments on the permit?