

# Permitting decisions

## Variation

---

We have decided to grant the variation for Park Grounds Landfill operated by Crapper & Sons Landfill Limited.

The variation number is [EPR/SP3336SN/V007](#).

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#)

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

## Key issues of the decision

### Site description

Park Grounds Landfill (SU 0500 8390) is an existing facility on Park Grounds Farm, near Wootton Bassett, in Wiltshire. It has been in use since 1988, taking industrial and commercial (I&C) wastes and, until 16 July 2004, asbestos, which was disposed of in a dedicated cell.

There are no European Sites within 5 km; there are four Sites of Special Scientific Interest (SSSIs) within 5 km of the site. There are 5 residential properties within 1 km of the site, the closest being Lowgate Cottage approx. 270 m NW.

The site is underlain and surrounded by oxford clay at least 120 m thick and does not lie within a Groundwater Source Protection Zone.

The purpose of this variation is to make the following changes:

- Increase the amount of waste accepted on site to 60,000 tonnes of non-hazardous waste and 20,000 tonnes of inert waste;
- Extend the existing landfill to generate approximately 250,000 m<sup>3</sup> of additional void space in new cells 11 to 15; and
- The addition of four new non-hazardous waste codes: 19 01 12, 19 01 14, 19 01 16 and 19 01 18.
- Amend leachate level limits.

### **The regulated facility and extent of the facility**

The variation proposal includes an extension of the landfill to generate approximately 250,000 m<sup>3</sup> of additional void in 5 new cells numbered 11 to 15. These are shown on the updated plan for the site in Schedule 7 of the varied permit. The operator has begun construction of cell 12 in advance of cell 11. An updated Pre-settlement contour plan (ref PreRC-01 dated January 2020) has been provided and has been incorporated into condition 2.7.6. The updated annual waste quantities have been included in table S1.5.

We have also included the following as activities directly associated activities for the site in table S1.1 of the varied permit:

- A3 - Discharges of site drainage from the landfill.
- A4 - Treatment of landfill gas for disposal in biofilters.

The reasons for this are set out below.

### **Environmental risk assessment**

#### **Hydrogeological Risk Assessment (HRA) and leachate management**

As a part of this variation the operator is proposing to extend the site to include the proposed cells 11 to 15 and also to formally apply to increase the leachate compliance limit from 1 to 2 meters across the site.

For proposed cells 11 to 15 we are satisfied with the proposal for the artificial sealing liner (ASL) to be engineered at the base and the sidewalls in line with engineering requirements for the cells 7 to 10, which is reworked layer of engineered Oxford Clay, on top of the natural, in-situ Oxford Clay. The risk to groundwater from escape of leachate through the ASL and in-situ clay is very low in this location. The main risk is the outbreak of leachate over the containment system should leachate levels not be controlled.

The current Leachate Management Plan (LMP) for the site dates from 2012 and does not incorporate existing cells 7 to 10. Leachate levels greater than 2 m have been observed in a number of landfill cells and monitoring rounds. We note that these are recorded within a single extraction/monitoring well in each cell. Going forward, it is questionable if the operator will be able to maintain leachate levels at 2 m above the cell base in both existing and proposed cells 11 to 15.

The number of leachate monitoring points proposed is not adequate. Our LTFGN02 Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water is clear that the minimum number of leachate level monitoring points in addition to a collection sump is two.

We consider that an updated LMP is required to address the deficiencies with current leachate management at the site and have set an improvement condition (table S1.3, 6) in the varied permit. This replaces and supersedes improvement condition 1 of the current permit. The revised LMP is required within three months of issue of the varied permit, and will need to address short and long-term management of site leachate. Currently leachate recirculation is undertaken, but should not be relied on long term and will need justification in the revised LMP.

We have agreed with the operator's proposal for a 2 m leachate compliance limit across the sites, apart from the following cells:

<b>Cell</b>	<b>Leachate Compliance Limit</b>
Cells A, B, C	1 m above cell base
Cell 1	0.9 m above cell base
Cells 1A, 1B	1 m above cell base

Cell	Leachate Compliance Limit
Cells 2, 3	1.5 m above cell base
Cell 4	1.2 m above cell base
Cells 5, 6	1.5 m above cell base

These are older cells at the site and were generally constructed to a shallower depth than the current and proposed cells. The compliance limits have been set at the levels proposed to ensure that there is sufficient freeboard within each cell to minimise the likelihood of leachate overtopping the containment system, and to ensure leachate levels do not interfere with gas collection, which requires a suitable unsaturated zone within the waste body so that gas can migrate for collection.

Leachate compliance levels and level monitoring requirements are set in table S3.1 of the varied permit. Leachate quality monitoring is unaffected.

### Stability Risk Assessment

A stability risk assessment (SRA) for the additional cells was submitted and is considered adequate. An updated SRA was requested for the increase leachate level limits requested, and was appropriately updated with assessment of the 2 m level limit. An assessment of leachate recirculation risks is also made and a standoff recommended. Stability risks from the additional leachate are considered to be adequately addressed.

### Landfill Gas Risk Assessment and gas management

Historically, though this site is classed as a non-hazardous landfill site, the landfill gas generation rate has been low due to the waste types accepted. There has been some increase in gas generated in the latest cells which is attributed to a change in the waste composition. Notably there has been an upward trend in odour complaints, which can be attributed to inadequate control of the gas. The operator has installed a gas collection system and is currently trialling a biofilter system where the landfill gas is biologically oxidised prior to release to atmosphere.

The current Landfill Gas Management Plan (October 2018) section 6.1 Future Scope of Active Gas Extraction System details future scope for active gas extraction system for cells 7 and 8 (which may also include cells 9 and 10). However, it does not make any reference to cells 11 to 15.

The operator has asserted that the data acquired from monitoring of the majority of the current cells has indicated very low rates of gas evolution and trials undertaken on cells 4 and 6 have shown that gas pressures have been easily regulated by passive management utilising constructed biofilters.

*They consider this to be a “sustainable model moving forwards on cells containing waste with almost no degradable content. It is highly probable therefore that the deployment of biofilters will be a sustainable management system response to effect the de-pressurisation of any gases observed to be forming within cells 11 to 15.”*

We consider that the gas production from the future cells is potentially highly variable. Even though it is stated in the application that the organic content of the waste planned to be imported in cells 11 to 15 will be low, this does not account for the worst case scenario that the waste stream input may change and cells 11 to 15 may become infilled with waste with significantly higher organic content. High levels of gas typically require a combination of flaring and gas utilisation engines, depending on gas production volumes.

An improvement condition (S1.3, 7) requiring the operator to provide an updated Landfill Gas Risk Assessment and an updated Gas Management Plan to include the new cells (11 to 15). The documents should include the control measures currently used on site, and the long term landfill gas management options for the site extension.

We have included a pre-operational condition (PO1) for the operator to install the additional gas monitoring wells which are proposed in the application - in advance of waste deposit in cell 12 (the first new cell to be constructed).

We have also made the following amendments to the permit:

- Amended table S1.1 to include the biofilter system as a directly associated activity for the landfill and table S3.2 to include the biofilters as emission points to air.
- Amended table S3.4 (Landfill gas in external monitoring boreholes – limits and monitoring requirements) to include the new external gas monitoring points for the site, with limits.
- Amended table S3.6 (Landfill gas – other monitoring requirements) to include monitoring of the gas collection system in line with our requirements for non-hazardous landfills.

All other landfill gas monitoring is under the permit is unchanged. All reporting requirements are set out in table S4.1.

### **Emission limits and monitoring - Surface Water**

The proposed extension for cells 11 to 15 has required some changes to the management of surface water. The site is within the catchment for the River Avon. The Thunder Brook tributary is 170 m southwest of the landfill, eventually flowing westwards into the Avon via Brinkworth Brook confluence. There are 3 streams nearby (SU05508400, SU04968399 and SU04398368). There are several man-made waterbodies on site which are associated with the site development and construction. There are also several natural waterbodies within 500m of the site. One of these ponds is currently dry but will eventually receive run-off from the completed landfill to the north and east of the site. Surface water monitoring locations are shown on plan ref 2437/ESSD/D10 V2.

Surface water compliance points SW3 and SW4 will be set in the varied permit (table S3.3), as the surrounding surface water system is identified as being the most likely receptor of any offsite contamination. The current 2012 LMP in which this is identified refers to compliance limits being set at the environmental quality standards for inland waters. These are now covered under the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015. As such limits for SW3 and SW4 will be set as the table below:

<b>Parameter</b>	<b>Limit (incl. units)</b>
pH	>6 and <9 pH units
Ammoniacal Nitrogen	0.6 mg/l
Chloride	250 mg/l
Suspended Solids	50 mg/l

Other surface water monitoring is unchanged as set out in table S3.8 of the varied permit. Reporting requirements are set out in table S4.1.

### **Improvement Programme**

Improvement conditions in table S1.3 have been applied for the facility as explained above. In addition, the following changes were made to the existing improvement programme.

Conditions 1 and 3 are considered superseded by conditions 6 and 7 respectively and are no longer required.

Condition 4 regarding a restoration plan for the site is no longer required as the requirement for a restoration plan when using wastes for restoration is covered by condition 2.7.2.

Condition 5 regarding submission of a drawing showing the pre-settlement levels at the site has been superseded by the revised contour plan submitted with this application and is no longer required.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	<p>We have identified information provided as part of the application that we consider to be confidential. We have excluded the financial provision costs for the landfill from the public register.</p> <p>The decision was taken in accordance with our guidance on confidentiality.</p>
<b>Consultation/Engagement</b>	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <p>Public Health England            Director of Public Health            Health &amp; Safety Executive            Local Planning Authority (Wiltshire)            Environmental health Department (Wiltshire)</p> <p>The comments and our responses are summarised in the <a href="#">consultation section</a>.</p>
<b>The facility</b>	
The regulated facility	<p>We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit. See Key Issues section.</p>
<b>The site</b>	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The variation includes an extension of the landfill area, as described in the Key Issues section. A plan of the extent of the facility is included in the permit.
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p>

Aspect considered	Decision
	<p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>
<b>Environmental risk assessment</b>	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is unsatisfactory and required additional Environment Agency assessment. See Key Issues section.</p>
<b>Operating techniques</b>	
General operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p>
<b>Permit conditions</b>	
Updating permit conditions during consolidation	<p>We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).</p>
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>The operator has requested the following non-hazardous waste codes:</p> <ul style="list-style-type: none"> <li>• 19 01 12, 19 01 14, 19 01 16 and 19 01 18.</li> </ul> <p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> <li>• they are suitable for the proposed activities</li> <li>• the proposed infrastructure is appropriate; and</li> <li>• the environmental risk assessment is acceptable.</li> </ul> <p>We made these decisions with respect to waste types in accordance with our guidance on Landfill.</p>
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions. See Key Issues Section.</p>
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme. See key Issues Section.</p>

<b>Aspect considered</b>	<b>Decision</b>
Emission limits	<p>ELVs and/or equivalent parameters or technical measures have been added/amended/deleted for the following substances:</p> <p>Leachate level limits;</p> <p>Landfill gas limits;</p> <p>Surface water.</p> <p>See key Issues section. We made these decisions in accordance with our Landfill Sector Guidance Note EPR 5.02 and the Landfill Directive.</p>
Monitoring	<p>We have decided that monitoring should be amended for the following parameters, using the methods detailed and to the frequencies specified:</p> <p>Leachate level limits;</p> <p>Landfill gas limits;</p> <p>Surface water.</p> <p>See Key Issues Section. We made these decisions in accordance with our Landfill Sector Guidance Note EPR 5.02 and the Landfill Directive.</p>
Reporting	<p>We have added/amended reporting in the permit for the following parameters:</p> <p>Leachate level limits;</p> <p>Landfill gas limits;</p> <p>Surface water.</p> <p>See Key Issues Section. We made these decisions in accordance with Landfill Sector Guidance Note EPR 5.02 and the Landfill Directive.</p>
<b>Operator competence</b>	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Financial provision	The financial provision arrangements satisfy the financial provisions criteria.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document</p>

<b>Aspect considered</b>	<b>Decision</b>
	<p>above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.</p>



# Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, and the way in which we have considered these in the determination process.

## Responses from organisations listed in the consultation section

<b>Response received from</b>
Wiltshire Environmental Health Dept.
<b>Brief summary of issues raised</b>
Reported a complaint on 26 <sup>th</sup> July 2018 about smoke and dust clouds from a bonfire at this site.
<b>Summary of actions taken or show how this has been covered</b>
No burning of waste is permitted by the permit.

<b>Response received from</b>
Public Health England.
<b>Brief summary of issues raised</b>
Recommendation that any Environmental Permit issued for this site should contain conditions to ensure that the following potential emissions do not impact upon public health: Fugitive emissions to air, including dust, and odour. Recommendation that the Regulator ensures that the proposed control measures, as described in the management plans, are sufficient to keep odour emissions to a minimum. Based on the information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from this proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.
<b>Summary of actions taken or show how this has been covered</b>
The permit contains conditions to prevent and minimise fugitive emissions to air, including dust and odour. The site has an odour management plan which details how they will prevent and minimise odours. This forms part of the Operator's Operating techniques in table S1.2 of the permit. The operator is required to operate the landfill site in accordance with the operating techniques. The permit requires that appropriate measures are applied by the landfill operator. This includes compliance with Landfill Directive requirements.