

Permitting decisions

Bespoke permit

We have decided to grant the permit for Hightown Compost Site operated by S.E.D. Services Limited.

The permit number is EPR/MP3135DF.

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:

- 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. The introductory note summarises what the permit covers.

Key issues of the decision

Odour

The handling and processing of organic, biodegradable waste has the potential to lead to odour fugitive emissions beyond the site boundary. Odours may arise from the waste reception areas, waste storage areas and the lagoon.

An odour management plan (OMP) has been developed in accordance with Horizontal Guidance H4, that details the type of waste the site will be treating, the type of odours that are likely to arise from various parts of the process and the management techniques that have been put in place to reduce or prevent these odours from impacting on local sensitive receptors. The operator has provided an OMP for the facility (reference: Odour Management Plan S.E.D. Services Limited, dated: 2016).

The closest sensitive receptor is a public house approximately 160m south of the installation boundary. The closest residential property is approximately 340m east of the installation. Additional residential receptors are located in the village of Ince Blundell, approximately 800m to the north east of the site boundary and Hightown approximately 700m to the south west.

There is an area of woodland to the south and east of the site boundary that will reduce the pathway between the potentially odorous activities on site and the nearest receptor. The prevailing wind direction is also westerly, which will reduce the pathway to the nearest receptor.

The following parts of the activity have been identified as having the greatest potential to generate odour:

- waste arrival and reception of feedstock;
- operations during windrow composting and maturation stages, including the turning of windrowed material; and,
- the leachate and lagoon.

The following sections provide a brief description of the main management methods, as detailed in the OMP, which will be used by the operator to reduce the impact of odour emissions on the nearby sensitive receptors.

Odour controls – management of waste conditions

The OMP has detailed how the operator plans to manage the condition of the windrowed waste to ensure that aerobic conditions are maintained and to prevent the release of anaerobic related odours. The windrowed waste will be tested frequently for moisture content, oxygen content, temperature and the carbon to nitrogen ratio. Management methods will include the routine, regular turning of the windrow to ensure there is a sufficient oxygen content and to maintain optimal temperatures.

The site will maintain a flexible approach to the timing of turning windrows. If weather conditions are unfavourable a judgement will be made as to whether holding off on turning of the windrows until more favourable weather conditions can occur provided that this does not increase the risk of anaerobic conditions.

Odour controls – feedstock management

Pre-acceptance and acceptance checks will be made on the waste types to ensure that only permitted wastes are delivered to the site. An assessment will be made to ensure that the waste is suitable for treatment at the site. Waste will not be accepted if for any reason there is insufficient storage capacity available. All waste will be assessed by the weighbridge operator to ensure it complies with the waste transfer note description and the permitted waste types for the facility. At the reception area the moisture content of the waste will be tested and controlled.

Odour controls – leachate lagoon

The surface water drainage system and lagoon contain surface water runoff from the composting pad. In dry periods this can become more concentrated and potentially could become anaerobic. If such conditions occur this water will not be used to add moisture to the composting process until effective treatment has been applied either through the use of chemicals or aeration.

Odour controls - monitoring

Olfactory monitoring will be carried out both on the site and outside of the permit boundary on a daily basis. The selected locations for monitoring shall be chosen based on the prevailing wind direction on the day. The surveys will be carried out in accordance with Technical Guidance Note H4, and details will be logged by the odour assessor in a pro-forma.

We are satisfied that the OMP is sufficient to minimise the potential for odour emissions from the facility to cause nuisance outside the installation boundary. The operator is required to operate at all times in accordance with the site OMP to prevent pollution arising from odours and implement all mitigation measures in line with the plan. We, the Environment Agency, have reviewed and approved the Odour Management Plan and consider it complies with the requirements of our H4 Odour management guidance note. We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the operator.

Bioaerosols

The Environment Agency's *Composting and potential health effects from bioaerosol: guidance for permit applicants* refers to the need for open processing sites within 250m of a sensitive receptor to submit a site specific bioaerosol risk assessment, detailing suitable mitigation measures where appropriate, with their permit application.

The operator has undertaken a qualitative bioaerosol risk assessment (reference: Bioaerosol Risk Assessment SED Services Limited, dated: 2016) to assess the impact from potential bioaerosol release at the closest receptors. This has defined the risk of emissions from site as being not significant, due to the distance of the nearest receptors and the control measures in place on site.

The areas of the site with the greatest potential to generate bioaerosols has been identified as the following:

- offloading of waste materials to the concrete pad;
- waste shredding and transfer to the composting pad;
- waste composting, maturation and turning activities; and,
- waste screening.

The site is situated within a rural landscape with agricultural land surrounding the site, with the exception of the south eastern site boundary that is adjacent to woodland.

Levels of bioaerosols from composting activities are expected to decline rapidly within the first 100m from a site, and would generally decline to background levels within 250m. As per our composting and bioaerosol position statement, we take this into account before authorising any new composting facility located where the composting operations would be within 250m of sensitive receptors.

For the Hightown Compost Site, there is one sensitive receptor within 250m of the site boundary. This is a public house located approximately 160m south of the installation boundary. This receptor is approximately 200m from the compost maturation activities, and is over 250m from the windrows.

The area of woodland to the south and east of the site will assist in reducing the pathway between the activities generating bioaerosols on site and the nearest receptor. Additionally the prevailing wind direction is westerly which will also reduce the pathway to the nearest receptor.

To minimise the generation and subsequent dispersal of bioaerosols, a number of preventative control measures will be implemented on site:

- the moisture content within all stages of the composting process should be monitored to avoid the waste and materials drying out and potentially forming dusts;
- the shredding and formation or turning of windrows will be avoided on days with high wind speeds;
- screening will be undertaken when wind speeds are low, or when the wind direction is not coming from the north;
- the site will be swept and kept clear of all loose material on a regular basis;
- plant and machinery will be kept well maintained in line with a maintenance schedule to avoid dust generation;
- material transportation from the shredding area to the composting area, and for final product out of site will take place under sheeted vehicles;
- site roads will be regularly dampened down and/or regularly swept to suppress dust and bioaerosols;
- the windrows will be regularly dampened down and the site surface swept;

We agree with the conclusion of the operator's bioaerosol risk assessment and are satisfied that the risk of bioaerosol impact off site is low. This is due to a combination of the distance of the activities from the sensitive receptors, and the measures in place on site.

The risk assessment recommends further quantitative bioaerosols monitoring should be carried out once composting operations have started to confirm that the conclusions of the risk assessment are correct. As a result, we have included a bioaerosol monitoring condition. Monitoring is to be carried out upwind and downwind of the site every quarter in accordance with Technical Guidance Note M9.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Consultation	
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> <ul style="list-style-type: none"> • Environmental Health and Director of Public Health; • Food Standards Agency; • Health and Safety Executive; and, • Public Health England. <p>The comments and our responses are summarised in the consultation section.</p>
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility'. 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.
The site	
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 plan is included in the permit.
Site condition report	<p>The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.</p> <p>The site has been used for the composting of biodegradable waste intermittently since approximately 2003.</p> <p>Prior to the use of the site as a composting facility the site was used for agriculture and is currently surrounded by agricultural land to the south, west and north and a dense wood to the east.</p> <p>The site is located over the Sidmouth Mudstone formation and has approximately 20 feet of clays to protect this horizon. The Sidmouth Mudstones do not constitute a major aquifer, and so we do not consider that background monitoring data is</p>

Aspect considered	Decision
	<p>necessary.</p> <p>The site is entirely covered with hardstanding. The south western end of the site is covered with compacted hardcore materials, whilst the northern end of the site is covered with a concrete slab with sealed drainage provided to collect surface water runoff and compost leachate and divert it to the catch lagoon.</p> <p>Potentially contaminated liquors will be stored in an engineered lagoon and removed by tanker to an authorised facility. All run off from the concrete pad will drain to the lagoon, including run-off from the stabilisation and maturation pads. Water can be re-circulated and used in the process to moisten the waste, where necessary. Otherwise the water from the lagoon will be tankered off site to a suitable facility.</p>
<p>Biodiversity, heritage, landscape and nature conservation</p>	<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> <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. An Appendix 11 form was sent to Natural England (07/02/2017) for information only.</p>
Environmental risk assessment	
<p>Environmental risk</p>	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.</p> <p>Please see the Key Issues section for further details on odour and bioaerosols. The impact of noise to sensitive receptors is expected to be low.</p>
Operating techniques	
<p>General operating techniques</p>	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes, <i>Sector guidance note S5.06: Guidance for the recovery and Disposal of Hazardous and Non-Hazardous Waste; EPR 1.00 - How to comply with you Environmental Permit; Horizontal Guidance H4 – Odour Management</i>, and we consider them to represent appropriate techniques for the facility.</p> <p>The Operator has provided a Best Available Techniques (BAT) Assessment (reference: 'Hightown BAT Assessment', dated: 19/10/16).</p> <p>The BAT Assessment details how the procedures meet the BAT requirements for the following areas:</p> <ul style="list-style-type: none"> • Pre-acceptance of waste - determining suitable wastes, characterisation, sampling and analysis of feedstock, and quarantining of unacceptable materials;

Aspect considered	Decision
	<ul style="list-style-type: none"> • Waste acceptance - on arrival the loads will be weighed at the weighbridge and all documents checked. Any non conforming wastes will be deposited in a quarantine area pending removal to an appropriate facility; • Waste handling, storage and treatment - All wastes accepted at the site will be stored on impermeable concrete pavement with a sealed drainage system. Water is available for wash down of the reception area as required. Storage of received materials is for a minimum time prior to incorporation of the materials into a compost stockpile; • Preparation of wastes for composting - all pre-treatment operations will occur on the sealed concrete pad with drainage to the lagoon. Waste inspection and quarantining procedures will apply. A site maintenance regime is in place within the Environmental Management Plan; • Composting process - all composting operations will occur on the sealed concrete pad with drainage to the lagoon. Water collected through the system will be considered for re-use within the composting process to provide moisture as required, for discharge in line with permits or for off-site recovery/disposal. An Odour Management Plan and bioaerosol management procedures are identified in the Key Issues section; • Process monitoring and control - frequent monitoring of parameters throughout the process. • Product preparation and storage – analysis to confirm stability, and stored on impermeable surface with sealed drainage. <p>The operating techniques that the operator must use are specified in table S1.2 in the environmental permit.</p>
Odour management	We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory. See the Key Issues section for further information.
Fire prevention plan	We have assessed the fire prevention plan and are satisfied that it meets the measures and objectives set out in the Fire Prevention Plan guidance.
Permit conditions	
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>We have assessed the waste codes proposed by the operator and consider them to be acceptable and consistent with the PAS 100 protocol.</p> <p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> • they are suitable for the proposed activities; • the proposed infrastructure is appropriate; and, • the environmental risk assessment is acceptable. <p>We have excluded the EWC code 19 05 99 <i>Wastes from aerobic treatment of solid wastes - wastes not otherwise specified (outputs from in-vessel composting operations)</i>, as this is not a suitable waste code for open windrow composting.</p> <p>We made these decisions with respect to waste types in accordance with Sector Guidance Note S5.06: Guidance on the recovery and disposal of hazardous and</p>

Aspect considered	Decision
	non-hazardous waste.
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>The pre-operational measure (POM1) in Table S1.3 of the permit requires the operator to carry out background sampling of bioaerosols prior to the facility becoming operational. The sampling shall be undertaken in accordance with the Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities (January 2017). This will provide a baseline dataset to support the assessment of bioaerosols when the site is operational.</p>
Emission limits	<p>We have decided that bioaerosols threshold limits should be set for the parameters listed in the permit.</p> <p>The following substances have been identified as being emitted in significant quantities and threshold limits have been set for those substances:</p> <ul style="list-style-type: none"> • Total bacteria - 1,000 CFU m⁻³ • Aspergillus Fumigatus - 500 CFU m⁻³
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>We have required monitoring to be undertaken in the permit, this is to ensure the facility is operated in such a way as to control bioaerosols and to ensure that the facility is operated in accordance with BAT.</p>
Reporting	We have specified reporting in the permit.
Considerations of foul sewer	We agree with the operator's justification for not connecting to foul sewer.
Operator competence	
Management system	<p>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.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Technical competence	<p>Technical competence is required for activities permitted. The operator is a member of an agreed scheme.</p> <p>We are satisfied that the operator is technically competent.</p>
Relevant convictions	<p>The Case Management System has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.</p>
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

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

Response received from
Public Health England (dated:14/11/16).
Brief summary of issues raised
Public Health England (PHE) has recommended that the Regulator is satisfied that stringent on-site procedures to manage emissions are in place, as well as a detailed management plan, which is subject to appropriate periodic review and update. PHE recommend that the Odour Management Plan should be subject to regular review and updated to ensure that procedures for reducing and managing odours are robust and effective.
Summary of actions taken or show how this has been covered
Please see the Odour and Bioaerosol sections of the Key Issues for further information. The operator will be required to take appropriate action if odour is detected during monitoring or if an odour complaint is received. This is addressed in Conditions 3.3 and 3.5 in the permit.