

# Standard rules SR2012 No4 V 5.0

## The Environmental Permitting (England & Wales) Regulations 2016

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### Composting in closed systems

#### Part A installation – treatment capacity more than 75 tonnes per day

##### Introductory note

**This introductory note does not form part of these standard rules.**

These rules are for facilities that fall within the scope of the Industrial Emissions Directive in that they have the capacity to biologically treat more than 75 tonnes of waste in any one day. The total quantity of waste under these rules that can be accepted at a site must be limited to the designed capacity and must be less than 75,000 tonnes a year. No hazardous wastes are allowed.

When referred to in an environmental permit, these rules will allow the operator to operate a Part A installation involving the acceptance, storage, physical treatment and composting of specified biodegradable wastes.

The types of waste that can be accepted include green wastes, animal manures and cooked food waste and animal wastes that are covered by the Animal By-Products Regulations. Any wastes controlled by the Animal By-Products Regulations must be handled and treated in accordance with any requirements imposed by those Regulations.

These rules apply where the acceptance, preparation and sanitisation stage is carried out in closed systems, such as closed composting reactors or in closed vessels/buildings fitted with air abatement systems that are designed specifically for the process and designed treatment capacity. This allows the temperature and residence time to be controlled so that composting destroys harmful pathogens, and control and abatement reduces the risk of emissions. The stabilisation and maturation stages of composting may be carried out in an open managed processes where an engineered static aeration is used or windrows are covered in-between turning and active management. Under these rules, composting can only be carried out under predominantly aerobic conditions; it cannot be carried out under deliberately anaerobic conditions.

The subsequent storage of all residual material that has been composted and the non-composted fraction must be considered within the operational capacity of the facility and be actively managed to prevent pollution and fires. This requires the operator to take all appropriate measures to ensure full recovery and prevention of odour, noise and other fugitive emissions.

Consideration must be given to operational and there must be adequate storage capacity available during periods of time when land is not available for the spreading of compost, so that compliance with the rules and their limits is maintained throughout. The operator shall have contingency measures in place to slow waste acceptance if necessary

The operations must comply with Best Available Techniques (BAT) conclusions and BAT Associated Emissions Limits (AEL). These are laid out in Best Available Techniques (BAT) Reference Document for Waste Treatment; Industrial Emission Directive 2010/75/EU ) Integrated pollution Prevention and control) 2018 . Chapter 6 stipulates the BAT conclusions for waste operations in general and specifically for biological treatment of waste. Sites permitted prior to August 2018 are required to comply with BAT conclusions and AEL by 17 August 2022.

These rules do not permit the burning of any wastes, either in the open, inside buildings or in any form of incinerator or engine.

These rules do not allow any fugitive emissions.

These rules do not allow any point source emission into air, land, surface waters or groundwater, except:

- Liquids may be discharged into a sewer subject to a consent issued by the local water company;
- Liquids may be taken off-site in a tanker for disposal or recovery;
- Clean surface water from roofs, or from areas of the site that are not being used in connection with storing and treating waste, may be harvested and reused.
- Point source and channelled emissions from abatement systems treating air from air management, ventilation systems and static aerated piles

These rules do not apply to installations with more than one operator.

End of introductory note

# Conditions

## 1 Management

### 1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances, closure, and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in these standard rules shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Energy and resource efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 2 Operations

### 2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in table 2.1 below (“the activities”).

2.1.2 The activities shall be undertaken in accordance with best available techniques.

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A1	S5.4 A(1) (b) (i)	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment  R3: Recycling/reclamation of organic substances which are not used as solvents	Composting, including acceptance, sanitisation, stabilisation and maturation of the types of waste listed in table 2.3.  The treatment capacity of animal waste shall not exceed 10 tonnes per day.  Sanitisation of waste must take place in an enclosed and engineered system.
<b>Directly Associated Activity</b>			
A2	Physical treatment of waste	R3: Recycling/reclamation of organic substances which are not used as solvents	Physical treatment associated with the composting activity, including storage shredding, blending and screening, of waste types listed in table 2.3.
A3	Storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	Secure storage of waste types listed in table 2.3 in an enclosed building
A4	Storage of liquid waste consisting of dirty water and/or liquor	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Secure storage in covered lagoons, containers or tanks.

	Storage of finished compost and non-composted fraction	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	Secure storage of composted material and non-composted processed material, including finished screened material waiting for dispatch and non-composted fraction.  Secure storage of quarantined waste .
A5	Raw material storage	Storage of raw materials including activated carbon lubrication oil, antifreeze, diesel for use within the facility	Secure storage of raw materials

## 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan attached to the permit.

2.2.2 The activities shall not be carried out within:

- (a) 250 metres of the nearest sensitive receptor;
- (b) 500 metres of a European site (within the meaning of Regulation 8 of the Conservation of Habitats and Species Regulations 2017) or a Site of Special Scientific Interest (SSSI), including candidate or proposed sites or a Marine Conservation Zone ;
- (c) a groundwater source protection zone 1 or 2, or where a source protection zone has not been defined then within 50 metres of any well, spring or borehole used for the supply of water for human consumption. This must include private water supplies;
- (d) 10 metres of any watercourse;
- (e) 250 metres of the presence of great crested newts, where it is linked to the breeding ponds of the newts by good habitat
- (f) 50 metres of a Local Nature Reserves (LNR), Local Wildlife Site (LWS), Ancient Woodland or Scheduled Ancient Monument;
- (g) 50 metres of a site that has relevant species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk because of this activity;
- (h) an specified Air Quality Management Area.

## 2.3 Waste acceptance

2.3.1 Waste shall only be accepted if:

- (a) it is of a type and quantity listed in table 2.3 below; and
- (b) it conforms to the description in the documentation supplied by the producer and holder; and
- (c) the facility has sufficient free capacity to store and treat the waste

2.3.2 Waste acceptance and pre-acceptance activities shall be undertaken in accordance with best available techniques

2.3.3 Records demonstrating compliance with rule 2.3.1 and 2.3.2 shall be maintained.

Maximum quantities	
<p>The total quantity of waste accepted at the site shall be less than 75,000 tonnes a year. Waste must only be accepted where there is sufficient free capacity to store or treat the waste in such a way as to prevent odour and other emissions and in accordance with an odour management plan and pre-acceptance procedure.</p>	
<p><b>Exclusions</b>            Wastes having any of the following characteristics shall not be accepted:            Waste that is not biodegradable;</p> <ul style="list-style-type: none"> <li>• Biodegradable waste that is significantly contaminated with non-biodegradable contaminants like plastic and litter beyond incidental level of 0.5%;</li> <li>• Waste consisting solely or mainly of dusts (except sawdust), powders or loose fibres;</li> <li>• Hazardous wastes;</li> <li>• Wastes that are in a form which is liquid other than compost leachate and digestate ;</li> <li>• Wastes containing treated wood and post-consumer wood</li> <li>• Wastes containing wood-preserving agents or other biocides;</li> <li>• Wastes containing persistent organic pollutants;</li> <li>• Wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014;</li> <li>• Manures, slurries and spoiled bedding and straw from farms where animals have notifiable diseases as stipulated in the Animal By-Products (Enforcement) (England) Regulations 2011.</li> </ul>	
Waste Code	Description
02 01 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing	
02 01 03	plant-tissue waste
02 01 06	animal faeces, urine and manure (including spoiled bedding and straw)
02 01 07	wastes from forestry
02 02 wastes from the preparation and processing of meat, fish and other foods of animal origin	
02 02 01	sludges from washing and cleaning, peeling, centrifuging and separation.
02 02 02	animal tissue waste.
02 02 03	materials unsuitable for consumption or processing

<b>02 03</b>	<b>wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation</b>
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
<b>02 04</b>	<b>wastes from sugar processing</b>
02 04 01	soil from cleaning and washing beet
02 04 03	sludges from on-site effluent treatment
<b>02 05</b>	<b>wastes from the dairy products industry</b>
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
<b>02 06</b>	<b>wastes from the baking and confectionery industry</b>
02 06 01	materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
<b>02 07</b>	<b>wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)</b>
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation - malt husks, malt sprouts, yeast and yeast-like residues only
02 07 04	material unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
<b>03 01</b>	<b>wastes from wood processing and the production of panels and furniture-virgin timber only</b>
03 01 01	waste bark and cork - virgin timber only
03 01 05	sawdust, shavings, cuttings, wood and particle board other than those in 03 01 04 only - virgin timber only
<b>03 03</b>	<b>wastes from pulp, paper and cardboard production and processing</b>
03 03 01	waste bark and wood - virgin timber only

03 01 05	sawdust, shavings, cuttings, wood and particle board other than those in 03 01 04 only - virgin timber only
<b>03 03</b>	<b>wastes from pulp, paper and cardboard production and processing</b>
03 03 01	Waste bark and wood -virgin timber only
03 03 10	fibre rejects only- virgin timber
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste) EN 13432 or certified biodegradable packaging</b>
15 01 01	paper and cardboard packaging (excluding veneers, plastic coatings or laminates) certified to EN 13432 or equivalent standard
15 01 02	plastic packaging - compostable plastics only certified to EN 13432 or equivalent standard
15 01 03	wooden packaging - virgin timber only
15 01 05	composite packaging - only biodegradable organic packaging certified to EN 13432 or equivalent standard
15 01 09	textile packaging (made entirely from biodegradable fibres only)
<b>16 10</b>	<b>aqueous liquid waste destined for off-site treatment</b>
16 10 02	liquor/leachate from a composting process that accepts waste input types listed in these standard rules or composting standard rules only.
<b>17 05</b>	<b>soils (excluding excavated soils from contaminated sites), stones and dredging spoil</b>
17 05 06	dredging spoil other than those mentioned in 17 07 05 (from inland waters only)
<b>19 02</b>	<b>wastes from physic/chemical treatments of waste (including dechromatation, decyanidation, neutralisation</b>
19 02 03	premixed wastes composed only of non-hazardous wastes (waste types listed within these standard rules only)
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 (only if derived solely from physical treatment and/or pH adjustment of waste input types listed within these standard rules)

19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 (sewage sludge which has been previously pasteurised and stabilised only)
<b>19 05</b>	<b>wastes from the aerobic treatment of solid wastes</b>
19 05 01	non-composted fraction of municipal and similar wastes- from composting process that accepts waste input types listed in these standard rules, made up of previously sanitised batches only
19 05 02	non-composted fraction of animal and vegetable waste from composting process that accepts waste input types listed in these standard rules, made up of previously sanitised bathes only
19 05 03	off-specification compost (from a composting process that accepts waste input types listed in these standard rules only and made up of previously sanitised and stabilised batches only
19 05 03	off-specification compost (previously composted sewage sludge only)
<b>19 06</b>	<b>waste from the anaerobic treatment of waste</b>
19 06 03	liquor from anaerobic treatment of municipal waste (from a process that accepts waste input types listed in these standard rules or anaerobic digestion standard rules only) and made up of previously pasteurised and stabilised batches only
19 06 04	digestate from anaerobic treatment of municipal waste from a process that accepts waste input types listed in these standard rules or anaerobic digestion and made up of previously pasteurised and stabilised batches only
19 06 05	liquor from anaerobic treatment of animal and vegetable waste from a process that accepts waste input types listed in these standard rules or anaerobic digestion and made up of previously pasteurised and stabilised batches only
19 06 06	digestate from anaerobic treatment of animal and vegetable waste from a process that accepts waste input types listed in these standard rules or anaerobic digestion and made up of previously pasteurised and stabilised batches only
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (previously digested sewage sludge only)
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 01	paper and cardboard (excluding veneers or plastic coatings) meeting EN 13432 or equivalent certified standard only
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 and only including from a process that accepts waste input types listed in these standard rules only and made up of previously sanitised/pasteurised and stabilised batches only)
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 01	paper and cardboard (excluding veneers, plastic coatings or laminates) meeting EN 13432 or equivalent certified standard

20 01 39	plastics - compostable plastics only, meeting EN 13432 or equivalent certified standard
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>
20 02 01	biodegradable waste (plant matter only)
<b>20 03</b>	<b>other municipal wastes</b>
20 03 02	waste from markets (biodegradable only)

## 2.4 Operating techniques

2.4.1 The activities shall be operated using the techniques and in the manner described in table 2.4 below.

<b>Table 2.4 Operating techniques</b>	
1.	New operations. Prior to waste treatment operations commencing, the operator will submit a commissioning plan to the Environment Agency which details the commissioning of the in-vessel system, air management and abatement systems. Following commissioning a scheme of inspection and maintenance will be incorporated to the management system.
2.	Existing operations shall by the 1 January 2021 <ul style="list-style-type: none"> <li>a. submit a validation report for all critical infrastructure as carried out by a qualified engineer, together with</li> <li>b. undertake a Hazard &amp; Operability Study (HAZOP) or similar risk identification technique and document actions in accordance with condition 1.1 ;</li> <li>c. produce and submit a schedule of planned improvement maintenance as identified by the HAZOP or risk assessment and/or suppliers, in accordance with condition 1.1;</li> <li>d. Produce a programme of inspection and works which will be implemented to ensure that primary and secondary containment remain fit for purpose. A report describing this programme, including its findings and the works to be undertaken as a result, will be submitted to the Environment Agency within 1 months of completion of that report. Time lines for completion of required works to be agreed with the Environment Agency.</li> <li>e. ensure procedures are clearly documented in accordance with 1.1</li> </ul>
3.	Existing sites will submit a report setting out progress to achieving the BAT Conclusions and BAT-AEL's where BAT is currently not achieved, but will be achieved by the 30th June 2022. The report shall include, but not be limited to, the following: <ul style="list-style-type: none"> <li>a. Current performance against the BAT Conclusions and BAT-AEL.</li> <li>b. Associated targets / timelines for reaching compliance by 30th June 2022.</li> <li>c. The report shall address all of the relevant BAT Conclusions.</li> </ul> <p>In the interim period the site must be operated in line with a comprehensive management system which identifies all risks of pollution, including those arising from accidents, fire, etc. Setting out how the risks are prevented and minimised. It must be revised and maintained as activities evolve and continually improve environmental performance.</p>
4.	The management system shall document the monitoring regimes and systems to ensure process stability and to minimise emissions and pollution.
5.	The acceptance, storage, physical treatment and composting of wastes shall take place only on an impermeable surface with a sealed drainage system that meets the recommendations of CIRIA 736 report or equivalent approved standard.
6.	All waste solids, liquids and sludges shall be securely stored. The acceptance, preparation, storage and treatment stages for the requirements of the Animal By-Products Regulations shall be in an enclosed vessel that has a purposely designed air management and extraction system that is able to control the process. Air extraction and air abatement systems treating off gases or gas cleaning shall be specifically designed by a qualified engineer. As per the manufacturer's or the engineering specification in accordance with condition 3.3. The air composition and gas stream quality shall be monitored and maintained to minimise the release of emissions, odour and bioaerosols.

7 The storage, physical treatment and composting of wastes under anaerobic conditions shall be prevented. Waste shall be stored for the minimum time possible prior to treatment and batch formation, or otherwise actively managed to minimise uncontrolled decomposition. Storage of waste pending treatment shall be stored no more than 2 days from receipt.
8. The volume of waste in treatment vessels must not exceed design capacity of each vessel and the site.
9. All storage and treatment areas shall be located on an impermeable surface (a hydraulic permeability of not greater than $1 \times 10^{-9}$ m/s) with sealed construction joints within a bunded area. The bunded area shall have a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater. Bunds shall be regularly inspected to ensure that bunds filled by rainwater are regularly emptied. Connections and fill points should be within the bunded area and no pipework should penetrate the bund wall. Underground tanks shall have secondary containment and appropriate leak detection. No less than 95% of the bund capacity shall be maintained at all times. All above ground tanks and containers shall have secondary containment and comply design and construction of secondary containment systems shall comply with a CIRIA 736 report or equivalent approved standard. Any secondary containment shall adhere to recommendations of a CIRIA 736 report or equivalent approved standard
10. Secondary containment and bunds shall be regularly inspected and emptied. Connections and fill points should be within the bunded area and no pipework should penetrate the bund wall unless it complies with CIRIA 736.
11. The operator shall have a site drainage plan and a schedule for inspection and maintenance of the facility's critical infrastructure, including the impermeable surfacing and drainage system. This infrastructure shall be inspected and maintained in accordance with this schedule.
12. Drainage, aeration channels and collection sumps shall be inspected on a weekly basis and steam cleaned to prevent the build-up of odorous material and prevent pest infestations.
13. Water from operational areas, liquors and leachate shall be stored in covered lagoons or enclosed tanks, with a suitably designed and maintained abatement system to prevent and minimise odour and emissions. All lagoons shall be constructed in accordance with the recommendations of a CIRIA 759 report or equivalent approved standard. A freeboard of at least 750 mm.
14 Clean water must be separated from operational areas..
15. Discharges to ground water or surface watercourses shall consist of clean water only.
16. Each composting batch shall undergo an identifiable sanitisation and stabilisation stage and be defined with a batch number which is traceable from receipt of waste to dispatch from site
17 Quarantined and rejected waste shall be stored in closed containers and removed to an appropriately authorised facility within 5 days or as agreed in writing with the Environment Agency
18 Oversize material stored on site shall be monitored to observe for re-heating
19. All tanker loading and discharge points should be in a building or venting to a specified abatement system.
20. All tanker loading and discharge shall be supervised.
21. Tankered waste must be accompanied by a washout certificate
22 Poultry litter and manures shall be stored in covered lagoons or containers.
23. Material stored following composting and screening must not cause pollution and must be demonstrated to be stable.
24 Consideration shall be given to operational and storage capacity during periods of time when land is not available for the spreading of compost, so that compliance with the rules and their limits is maintained throughout. Leachate storage must allow at least two months storage capacity..
<b>Improvement Conditions</b>
Applying to existing facilities, that is those with permits issued before the ( date of issue of this revision to the standard rules to be inserted)
The operator shall undertake an inspection and works programme to ensure that all primary and secondary containment is fit for purpose.
<ul style="list-style-type: none"> <li>a) An inspection of all primary and secondary containment shall be undertaken by a chartered engineer. All secondary containment shall be assessed in line with CIRIA 736 and CIRIA 739 for lagoons</li> <li>b) A written report of the findings shall be submitted to the Environment Agency for approval by 1 July 2020. Where the report does not demonstrate that the primary and secondary containment is fit for purpose the report shall contain detailed proposals to bring the containment up to the required standard including timescales for the implementation of (individual measures/the measures).</li> <li>c) Where it contains proposals for works the report shall be implemented by the Operator in accordance with the Environment Agency's written approval.</li> </ul>

### 3 Emissions and monitoring

#### 3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to air, water or land, except from the sources and emissions point listed in table 3.1.

3.1.2 The limits given in table 3.1 shall not be exceeded.

<b>Emission point ref. &amp; location [Note 1]</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
Point source emissions to air as identified on site plan	Channelled emissions to air	Ammonia	20 mg/Nm <sup>3</sup>	periodic over minimum 1-hour period	Once every 6 months	
		Odour concentration	1,000 ouE/Nm <sup>3</sup>	--	Once every 6 months or as determined in odour management plan	BS EN 13725
Note 1 – Emission point and source includes outlets from site infrastructure including ventilation systems, abatement systems emitting treated air from enclosed systems, outlets from tanks or vents or storage tanks containing liquors or leachate.						

#### 3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour but including ammonia) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.2.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater from the date of this permit issue and 10 years for soil, from the date of this permit issue unless such monitoring is based on a systematic appraisal of the risk of contamination.

### 3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### 3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### 3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in table 3.5.

3.5.2 The operator shall maintain records of all monitoring required by these standard rules including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

<b>Monitoring point</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring method</b>	<b>Other specifications</b>
Metrological Conditions	Wind speed Temperature Wind Direction	Continuous	As specified in management system	Weather station or anemometer and wind sock.

Stock piles and processing material temperature	Temperature	Daily prior to processing	Temperature probe	-- Uncontrolled decomposition must be prevented in accordance with condition 1.1, 2.4.1 and 3.3
Internal core for each composting batch during sanitisation	Temperature	Continuous	Temperature probe will be able to record core waste temperature and probe placement must be sufficient to record temperature uniformly.	Monitoring equipment shall be available on-site and used as required to maintain aerobic conditions and ensure compliance with these standard rules. Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency.
	Moisture	On loading and moving to second barrier stage	Industry standard grab sample or drying oven.	Animal by-products validation will dictate the shred size for incoming waste.
	Porosity	On vessel loading and after first barrier		Mixing and adjustment to enable air flow and prevent anaerobic conditions in accordance with condition 1.1, 2.4.1 and 3.3
	Carbon to Nitrogen Ratio	On vessel loading and after first barrier	BREF	
Representative Internal core for each composting batch during stabilisation stage	Temperature	At least daily	Temperature probe will be able to record core waste temperature	Monitoring, methodology and equipment shall be available on-site and used as required to maintain aerobic conditions in accordance with condition 3.3
	Moisture	At least daily	Industry standard grab sample or drying oven.	
Representative Internal core for each composting batch during further maturation stage	Temperature	Once per week	Temperature probe should record core waste temperature.	Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency.  All material will be subject to clearly defined sanitisation and stabilisation phase of treatment.  Procedures shall be clearly documented in the management system.

	Moisture	Once per week	Grab sampling and oven drying	
Internal core for over size storage piles	temperature	Once per week	As specified in management systems	As above
Leachate and dirty water storage capacity	Levels	At least daily	Visual or capacity measurement	750mm free board must be maintained
Stock piles and processing material	Fly infestation or pupa formation	At least daily in storage prior to preparation and sanitation weekly in stabilising stockpiles	Visual inspection	Record maintained. Fly count as necessary and in accordance with condition 3.6

### 3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

- (a) only use approved products for pest control;
- (b) treat pest infestations promptly;
- (c) reject pest-infested incoming waste.)
- (d) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (e) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency;

### 3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including but not limited to those specified in a fire prevention plan. Where a fire prevention plan has been approved by the Environment Agency that will be the plan that will be implemented.

3.7.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 4 Information

## 4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by these standard rules, unless otherwise agreed in writing by the Environment Agency.

## 4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by these standard rules to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.3 The operator shall demonstrate the efficiency of treatment and recovery by keep records of non-waste materials leaving the site - including the type of material, the batch number, the date of export off-site, and the tonnage exported on that date. These records shall be retained for at least 2 years.

<b>Parameter</b>	<b>Emission or monitoring point /reference</b>	<b>Report frequency</b>
Energy and resource use	Consumption of water, energy and raw materials	Annual report by the 1 <sup>st</sup> February
Emissions to Air	As specified in table 3.1	Quarterly report during the first year then yearly thereafter or as agreed by the Environment Agency
Emissions to Water	As specified in table 3.1	Annual report by 1 <sup>st</sup> February
Diffuse emissions	Using a mass balance considering the channelled emissions to air and water	Annual report by 1 <sup>st</sup> February
Waste returns	In accordance with rule 4.2.2	Within one month of the end of each quarter E-waste Return Form or other form as agreed in writing by the Environment Agency.

Non-waste outputs	In accordance with rule 4.2.3	Within one month of the end of each quarter
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## 4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents,;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time,;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Written confirmation of actual or potential pollution incidents and breaches of emissions shall be submitted within 24 hours.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Following the detection of an issue listed in 4.3.1, the operator shall review and revise the management system, and implement any changes as necessary to minimise the risk of reoccurrence of the issue.

4.3.5 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

(a) Where the operator is a registered company:

- i. any change in the operator's trading name, registered name or registered office address; and
- ii. any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

(b) Where the operator is a corporate body other than a registered company:

- i. any change in the operator's name or address; and
- ii. any steps taken with a view to the dissolution of the operator.

(c) In any other case:

- i. the death of any of the named operators (where the operator consists of more than one named individual);

- ii. any change in the operator's name(s) or address(es); and
- iii. any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

## 4.4 Interpretation

4.4.1 In these standard rules the expressions listed below shall have the meaning given.

4.4.2 In these standard rules references to reports and notifications mean written reports and notifications, except when reference is being made to notification being made "immediately", in which case it may be provided by telephone.

"*accident*" means an accident that may result in pollution.

"*Accident management plan*" means a plan that identifies risks and failures which can have an impact on the environment or have environmental consequences. The plan forms part of the management system. The plan must minimise the potential causes and consequences and identify clearly, the roles, responsibilities and action to be taken to minimise the consequences of accidents. This includes measures to prevent and control fires on site (see fire prevention plan).

"Air Quality Management Area" means that defined in the Environment Act 1995, Part VI, 83(1) as amended.

"*Animal By-Products Regulations*" means The Animal By-Products Enforcement) (England) Regulations 2011 (SI 2013 No.2952)

"*animal waste*" means any waste consisting of animal matter that has not been processed into food for human consumption. This does include, blood, feathers, uncooked butchers waste and any other animal waste that is not catering waste or former foodstuffs. This does not include faecal matter from animals (e.g. chicken litter or farmyard manure).

'*appropriate measures*' means the available techniques which are the best for preventing or minimising emissions and impacts on the environment. It includes both the technology used and the way your facility is designed, built, maintained, operated and decommissioned. It allows consideration of the risks, costs and advantages of a technique, and whether it is reasonably available to you. It requires you to take account of relevant guidance, including for example Best Available Technique Reference (BREF) documents.

"*authorised officer*" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.

"*BAP*" means Biodiversity Action Plan. This is a non-statutory plan created by the UK Biodiversity Partnership and the UK Government, in response to the Convention on Biological Diversity (CBD) signed in 1992. It describes the UK's biological resources, and commits a detailed plan for the protection of these resources.

'best available techniques' means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:

(a) 'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;

(b) 'available techniques' means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;

(c) 'best' means most effective in achieving a high general level of protection of the environment as a whole

"Biodegradable" means a material is capable of undergoing biological anaerobic or aerobic degradation leading to the production of CO<sub>2</sub>, H<sub>2</sub>O, methane, biomass, and mineral salts, depending on the environmental conditions of the process.

"Capacity" means the potential capacity and not historical or actual production levels or throughput. Biological treatment of waste usually takes place over more than one day, so the physical daily capacity can be calculated by dividing the maximum quantity of waste that could be subject to biological treatment at any one time by the minimum residence time.

"Channelled emissions" means emissions of pollutants into the environment through any kind of duct, pipe, stack etc. This also includes emissions from open-top biofilters.

"closed system" means a closed composting reactor or closed area (such as a building) in which waste is fully contained, and efficient air management abatement systems are demonstrated. This may cover a wide range of technology and, where necessary, is in compliance with Animal By-Products Regulations.

"Competent persons and resources" – means that a technically competent person accredited to a relevant scheme must attend site and record their attendance, and that all roles and responsibilities are clearly stated in the management systems along with records of operatives' training.

"compost" means a solid particulate material that is the result of composting, which has been sanitised and stabilised, and which confers beneficial effects when added to soil, used as a component of growing media or used in another way in conjunction with plants.

"compostable plastics" means plastics that are certified to meet the standards of EN 13432, EN 14995 or equivalent and is capable of breaking down by microbial digestion to create compost.

"composting" means the managed biological decomposition of biodegradable waste, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat and that result in compost.

"composting batch" means an identifiable quantity of material that progresses through the composting system and when fully processed has similar characteristics throughout. For composting systems that operate on a continuous- or plug-flow basis, batches will be taken to mean a series of "portions of production".

"Direct discharge"- means discharge to a receiving water body.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from emission points specified in these standard rules or from other localised or diffuse sources, which are not controlled by an emission limit.

"emissions to land" include emissions to groundwater.

"European Site" means a European site within the meaning of Regulation 8 of the Conservation of Habitats and Species Regulations 2017'.

"good habitat" means rough (especially tussocky) grassland, scrub and woodland.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"groundwater source protection zone" has the meaning given in the document titled "Groundwater protection: Principles and practice" published by the Environment Agency in 2012.

“guidance” refers to the guidance in the waste treatment BAT Reference document, and relevant guidance published by the Environment Agency or the UK Government.

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended)

“impermeable surface” means a surface or pavement constructed in accordance with CIRIA 736 or demonstrated equivalent and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface, and should be read in conjunction with the term “sealed drainage system” (below).

“Incidental contamination” means low levels of incidental waste, for example plastic, that may be contained within the feedstock waste.

“maturation” means a stage when by agitating and turning the compost it no longer results in reheating and the monitored temperature falls to ambient without the compost being too dry or anaerobic. Phytotoxins that are formed during the 'active' composting phase are metabolised by micro-organisms, which will result in the final material not being harmful to plants. This usually coincides with drop in pH toward neutral, and the conversion of ammonia into nitrates and recolonisation of beneficial micro-organisms. The maturation phase may need active management by turning to prevent the material becoming anaerobic.

“nearest sensitive receptor” means the nearest place to the permitted activities where people are likely to be for prolonged periods. This term would therefore apply to dwellings (including any associated gardens) and to many types of workplaces. We would not normally regard a place where people are likely to be present for less than 6 hours at one time as being a sensitive receptor. The term does not apply to those controlling the permitted facility, their staff when they are at work or to visitors to the facility, as their health is covered by Health and Safety at Work legislation, but would apply to dwellings occupied by the family of those controlling the composting facility.

“Operator” means in relation to a regulated facility:

- (a) the person who has control over the operation of the regulated facility,
- (b) if the regulated facility has not yet been put into operation, the person who will have control over the regulated facility when it is put into operation, or
- (c) if a regulated facility authorised by an environmental permit ceases to be in operation, the person who holds the environmental permit

“pests” means birds, vermin and insects.

"pollution" means emissions as a result of human activity which may—

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities and other legitimate uses of the environment.

“Post-consumer wood” means manufactured treated wooden materials and products that have been discarded.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“R” means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

“Representative internal” – means representative monitoring at a point inside the windrows that will give a representative assessment of internal temperature. Note: larger windrows will require more bespoke temperature equipment to assess temperature profiles accurately.

“sanitisation” means the actively managed and intensive stage of composting, lasting for at least five days, characterised by high oxygen demand and temperatures of over 55 °C, during which biological processes, together with conditions in the composting mass, eradicate human and animal pathogens or reduce them to acceptably low levels.

“sealed drainage system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

(a) no liquid will run off the surface otherwise than via the system;

(b) except where they may lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump.

“Secondary containment” – means a systems that is capable of containing loss from all above ground and underground storage tanks and that complies with CIRIA standard 736 or equivalent standard of design and construction.

Secure storage means that all reasonable precautions are taken to ensure that the waste cannot escape and that members of the public are unable to gain access to the waste.

“SSSI” means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

“stable” or “stabilised” means the degree of processing and biodegradation at which the rate of biological activity has slowed to an acceptably low and consistent level and will not significantly increase under favourable, altered conditions.

“stabilisation stage” means the stage of composting following sanitisation, during which biological processes, together with conditions in the composting mass, give rise to compost that is nominally stable. Soluble carbon is usually not fully used and material is still considered to be in treatment. This stage is a managed process to prevent odours, dust and bioaerosols. There is also a residual risk of reheating and leachate breakout.

“treated wood” is any wood that has been chemically treated (e.g. to enhance or alter the performance of the original wood). Treatments may include penetrating oils, tar oil preservatives, waterborne preservatives, organic-based preservatives, boron and organo-metallic based preservatives, boron and halogenated flame retardants and surface treatments (including paint and veneer).

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk. ‘List of Wastes’ means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“year” means calendar year commencing on 1st January.

End of standard rules