

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Norfolk Environmental Services Limited

Marsham Composting Facility

Wood Farm

Marsham

Norwich

NR10 5QQ

Variation application number

EPR/BP3695VH/V002

Permit number

EPR/BP3695VH

Marsham Composting Facility

Permit number EPR/BP3695VH

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

The Industrial Emissions Directive (IED) was transposed in England and Wales by the Environmental Permitting (England and Wales)(Amendment) Regulations 2013 on 27 February 2013. This variation implements the changes brought about by the IED for “existing facilities operating newly prescribed activities” and completes the transition of this facility from a waste operation to an IED Installation.

The Marsham Composting Facility, centred at NGR TG 18499 23155, is an in-vessel composting facility with an annual throughput of 45,000 tonnes, a site capacity of 12,000 tonnes and a daily capacity of greater than 75 tonnes. This facility includes a reception hall with physical treatment, in-vessel composting and external maturation.

In addition to the IED changes, this permit removes any EWC codes relating to food waste. Previously the plant was permitted to receive both green wastes and food wastes; however due to operational issues associated with the acceptance of food wastes at the site these were removed from the permit.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application received EPR/BP3695VH/A001 EAWML 100895	Duly made 10/03/2009	-
Additional information received	19/06/2009	-
Additional information received	10/11/2009	-
Permit determined EPR/BP3695VH	18/05/2010	Permit issued to Norfolk Environmental Waste Services
Application EPR/BP3695VH/V002 (variation and consolidation)	Duly made 29/08/2014	Application to vary the permit to include ‘newly prescribed activities’.
Variation determined (Billing Ref: YP3534WP)	09/10/2015	Varied and consolidated permit issued

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/BP3695VH

Issued to

Norfolk Environmental Waste Services (“the operator”)

whose registered office is

Lancaster House
16 Central Avenue
St Andrews Business Park
Norwich
Norfolk
NR7 0HR

company registration number 02633546

to operate a regulated facility at

Marsham Composting Facility
Wood Farm
Marsham
Norwich
NR10 5QQ

to the extent set out in the schedules.

The notice shall take effect from 09/10/2015

Name	Date
Rebecca Warren	09/10/2015

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/BP3695VH

This is the consolidated permit referred to in the variation and consolidation notice for application EPRBP3695VH/V002 authorising,

Norfolk Environmental Waste Services (“the operator”),

whose registered office is

**Lancaster House
16 Central Avenue
St Andrews Business Park
Norwich
Norfolk
NR7 0HR**

company registration number 02633546

to operate an installation at

**Marsham Composting Facility
Wood Farm
Marsham
Norwich
NR10 5QQ**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Rebecca Warren	09/10/2015

Authorised on behalf of the Environment Agency

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, including those 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 this permit 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 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 schedule 1 table S1.1 (the "activities").
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

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 at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2 and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) 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.

3.3 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.

3.4 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 the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1;
 - (b) process monitoring specified in table S3.2;
 - (c) bioaerosols monitoring specified in table S3.3.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit 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.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

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) 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;
 - (b) 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 any approved fire prevention plan.
- 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 this permit, 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 the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 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.

4.2.6 The operator shall submit to the Environment Agency a bi-annual report of the efficiency of the biofilter in the first year of compost operations. This shall include but not be limited to, the

assessment of the efficiency to reduce odours, the summary of maintenance and any re-commissioning planned or conducted, assessment of back pressure, venting and cracking. Thereafter the operator shall submit the report within one month of the end of each year, unless otherwise agreed in writing by the Environment Agency.

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 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

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 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:

Where the operator is a registered company:

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

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

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and

- (g) 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.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

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

Schedule 1 – Operations

Table S1.1 Activities			
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	From receipt of waste through to composting and recovery of by-products. Composting of waste under aerobic conditions in closed composting reactors or in closed vessels/buildings fitted with appropriate odour abatement. Waste types suitable for acceptance are limited to those specified in Table S2.2. Only 1 loading shovel shall operate in the maturation area at any one time.
Directly Associated Activity			
A2	Storage of waste pending recovery or disposal	R13: Storage of waste pending the R3 operation (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of waste to for composting or despatch off site for recovery and/or disposal. Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with sealed drainage, or outdoors on an impermeable surface with sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table S2.2.
A3	Physical treatment for the purposes of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for composting or despatch off site for recovery. Pre-treatment of waste prior to composting in an enclosed building and on an impermeable surface including shredding and screening. Post-treatment of processed compost shall take place in an enclosed reactor vessel fitted with a biofilter, or in windrows/bays located either indoors or outdoors fitted with

Table S1.1 Activities			
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
			a biofilter. Waste types suitable for acceptance are limited to those specified in Table S2.2.
A4	Compost storage	Storage of processed compost in an enclosed building fitted with appropriate odour abatement and on an impermeable surface, or outdoors on an impermeable surface with sealed drainage system.	From the receipt of processed compost produced at the facility to despatch for use off-site.
A5	Process water collection and storage	Collection and storage of compost liquor/leachate in 1 storage tank and 2 lagoons.	From the receipt of compost leachate produced at the facility to despatch for treatment at the facility or despatch off site for recovery or disposal.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Application form Part B, Section 5, Table 2 (EPR/BP3695VH/A001)	10/03/2009
Additional information	Schedule 5 response - Bioaerosol management and fire	10/11/2009
	Drainage maintenance statement	16/11/2009
Additional information	Odour management plan, Version 6 (Reference: V6200314SLM)	Date approved: 20/03/14 (and subsequent versions to it)

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>The operator shall submit written proposals to the Agency for approval for undertaking noise monitoring in order to demonstrate whether the conclusions of the noise modelling contained within the Environmental Report Volume II dated July 2008 and the updates included within the Technical Memorandum dated 20 October 2008 as submitted in support of the application are accurate. In particular the monitoring should measure the following:</p> <ul style="list-style-type: none"> – Internal building noise levels. – External measurements to validate noise attenuation afforded by the building fabric. – External measurements to confirm the noise level generated by the compost aeration system. – During operation at receptors during the day and night time periods <p>The proposals shall include details of locations, time and duration of monitoring and all monitoring parameters, including appropriate frequency analysis to be used.</p>	Completed
IC2	The monitoring shall be undertaken in accordance with the Agency's written approval and the results of this monitoring together with conclusions and recommendations should be submitted to the Agency for approval	Completed
IC3	The operator shall submit revised written procedures for approval to meet all the relevant BAT requirements for the in-vessel composting activity detailed in Sector Guidance Note IPPC S5.06 – Guidance for the Treatment of Hazardous and Non Hazardous Waste. The procedures must contain dates for implementation of individual measures	09/04/2016

Schedule 2 – Waste types, raw materials and fuels

Raw materials and fuel description	Specification
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Maximum Quantities	The total quantity of waste accepted at the site shall be no more than 45,000 tonnes a year.
Exclusions	<p>Wastes having any of the following characteristics shall not be accepted:</p> <ul style="list-style-type: none"> - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres; - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed; - wastes that are in a form that is liquid; - hazardous wastes
Waste Code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant-tissue waste
02 01 07	Wastes from forestry (comprising wood and plant tissue)
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those containing dangerous substances
03 03	Wastes from pulp, paper, and cardboard production and processing
03 03 01	Waste bark and wood
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 03	Wooden packaging (untreated)
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	Wood, glass and plastic
17 02 01	Wood (untreated)
19	Wastes from waste management facilities, off-site waste water treatment plants and preparation of water intended for human consumption/industrial use
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 07	Wood other than wood containing dangerous substances

Table S2.2 Permitted waste types and quantities	
Maximum Quantities	The total quantity of waste accepted at the site shall be no more than 45,000 tonnes a year.
Exclusions	<p>Wastes having any of the following characteristics shall not be accepted:</p> <ul style="list-style-type: none"> - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres; - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed; - wastes that are in a form that is liquid; - hazardous wastes
Waste Code	Description
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 38	Wood other than wood containing dangerous substances from separately collected fractions of municipal wastes (household waste and similar commercial, industrial and institutional wastes)
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste (comprising wood and plant tissue)

Schedule 3 – Emissions and monitoring

Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
'4-roof and water storm water soakaway' in site plan 09133-603 Rev A submitted with EPR/BP3695VH/V002.	Uncontaminated site surface water from roofs and non operational areas	No parameter set	No limit set	--	Weekly	Visual assessment – no visible oil or grease

Table S3.2 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Internal for each composting vessel	Temperature	At least daily as per industry standard	Thermocouple probe	Monitoring equipment shall be available on-site and used as required to ensure compliance with the conditions in this permit.
Internal for each composting vessel	Moisture	At least daily as per industry standard	Moisture meter or moisture touch test	Monitoring equipment shall be available on-site and used as required to ensure compliance with the conditions in this permit.
Internal for each windrow and for any sample of waste or compost	Temperature	At least daily as per industry standard	Thermocouple probe	Monitoring equipment shall be available on-site and used as required to ensure compliance with the conditions in this permit
Internal for each windrow and for any sample of waste or compost	Moisture	At least daily as per industry standard	Moisture meter or moisture touch test	Monitoring equipment shall be available on-site and used as required to ensure compliance with the conditions in this permit.

Table S3.3 Bioaerosol monitoring requirements					
Location or description of point of measurement	Parameter	Threshold limit in excess of background CFU m-3	Monitoring frequency	Monitoring standard or method	Other specifications
Upwind of the boundary of the operational area at approximately 50m			Quarterly for the first year from permit issue and twice a year or as agreed with the Agency.	In accordance with "A standardised protocol for the monitoring of bioaerosols at open composting facilities jointly developed by the Agency with the Association for Organics Recycling.	Meteorological data (wind speed, wind direction, temperature and relative humidity) should also be recorded during sampling, as well as taking note of on-site activities. The sampling report will be submitted within 1 month. Any limits breaches will be reported in Schedule 6 forthwith.
Downwind of the site at an equal distance from the boundary of the operational area as the nearest sensitive receptor Adjacent to the nearest sensitive receptor	Total bacteria Aspergillus Fumigatus Gram negative bacteria	1000 500 300	Quarterly for the first year from permit issue and twice a year or as agreed with the Agency.	In accordance with " A standardised protocol for the monitoring of bioaerosols at open composting facilities jointly developed by the Agency with the Association for Organics Recycling.	Meteorological data (wind speed, wind direction, temperature and relative humidity) should also be recorded during sampling, as well as taking note of on-site activities. The sampling report will be submitted within 1 month. Any limits breaches will be reported in Schedule 6 forthwith.

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Bioaerosol monitoring Parameters as required by condition 3.5.1	As specified in the Standardised Protocol and in agreement with the Environment Agency	Every 3 months or as agreed in writing by the Environment Agency	1 January, 1 April, 1 July, 1 October
Biofilter efficiency Parameters as required by condition 4.2.6	Biofilter(s)	Every 12 months	1 January

Table S4.2 Annual production/treatment	
Parameter	Units
Processed compost	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes or m ³
Energy usage	Annually	MWh
Total raw material used	Annually	tonnes

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Bioaerosols	As specified in the Industry Standard Protocol or other form as agreed in writing by the Environment Agency	--
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	10/09/15
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	10/09/15
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	10/09/15
Waste Returns	E-waste Returns Form	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“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 butcher 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).

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“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.

“bioaerosol threshold limits” means the maximum acceptable bioaerosol concentrations at the nearest sensitive receptor, or at an equivalent distance downwind of the composting operations, which are attributable to the composting operations. The maximum acceptable concentrations are respectively 300, 1000 and 500 CFU m⁻³ for gram-negative bacteria, total bacteria and *Aspergillus fumigatus*.

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

“compost” means 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.

“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 a plug-flow basis, batches will be taken to mean a series of “portions of production”.

“composting” means the biological decomposition of organic materials, 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.

“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 the Animal By-Products Regulations.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“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.

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“Industry Standard Protocol” means “A standardised protocol for the monitoring of bioaerosols at open composting facilities” published by the Association for Organics Recycling and developed in conjunction with the Environment Agency.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“pests” means Birds, Vermin and Insects.

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

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“sanitisation stage” 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 be lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump.

“stable, 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 conditions in the composting mass, give rise to compost that is nominally stable.

“treated wood” means 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, water-borne preservatives, organic-based preservatives, boron and organo-metallic based preservatives, boron and halogenated flame retardants and surface treatments (including paint and venner).

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

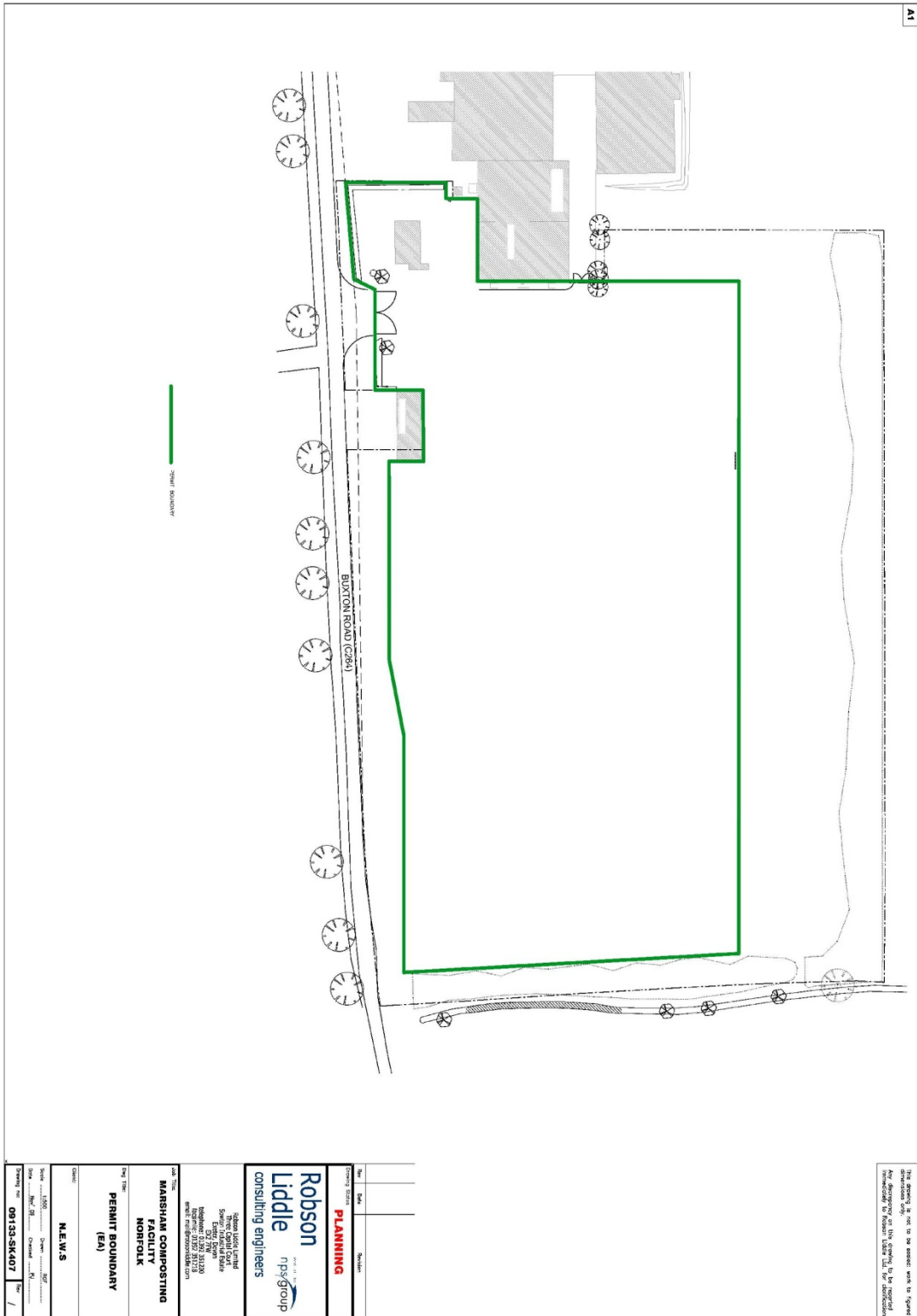
“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Schedule 7 – Site plan



END OF PERMIT

Permit Number: BP3695VH Operator: Norfolk Environmental Services Ltd
Facility: Marsham Composting Facility Form Number: WaterUsage1 / 10/09/15

Reporting of Water Usage for the year

Water Source	Usage (m3/year)	Specific Usage (m3/unit output)
Mains water		
TOTAL WATER USAGE		

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: BP3695VH

Operator:

**Norfolk
Environmental
Services Ltd**

**Facility: Marsham Composting
Facility**

Form Number:

**EnergyUsage1 /
10/09/15**

Reporting of Energy Usage for the year

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Natural Gas	MWh		
Biogas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: BP3695VH Operator: Norfolk Environmental Services Ltd

Facility: Marsham Composting Facility Form Number: Performance1 / 10/09/15

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
Total raw material used	tonnes

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)