

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Kelda Organic Energy (Cardiff) Ltd

Lamby Way Open Windrow Composting
Facility
Lamby Way
Rumney
Cardiff
CF3 4EQ

Permit number
EPR/AB3096CP

Lamby Way Open Windrow Composting Facility

Permit number **EPR/AB3096CP**

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This is a Tier 3 bespoke permit for a biological treatment activity – composting in open windrows.

Treatment operations are limited to preparatory treatment of waste and biological treatment; stabilisation and maturation. All treatment is for the purpose of recovery only, and may be by either mechanical and/or manual methods.

The relevant treatment capacity threshold has been included in the permit to reflect the legal waste facility operational limits; above which, the site would be operating as an Industrial Emissions Directive installation. See Table S1.1 for relevant limit.

The maximum quantity of waste accepted and processed on site shall not exceed 25,000 tonnes per year.

This permit does not allow any point source emission into surface waters or groundwater except clean, rainfall dependant drainage from areas of the site not used in connection with the storage and/or treatment of waste.

Discharge from the permitted activity (areas of the site used in connection with the storage and/or treatment of waste) is to foul sewer, in accordance with a trade effluent consent issued by the sewerage undertaker.

All emissions from the activity which are not controlled via actual emission limits, are controlled through the 'emission of substances not controlled by emission limits condition', and all relevant process requirements set out in Tables S1.1 and/or S1.2.

The burning of any wastes, either in the open, inside buildings or in any form of incinerator is not permitted.

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

Status log of the permit

Description	Date	Comments
Application EPR/AB3096CP/T001	Duly made 04/03/15	Part transfer application; transfer of open windrow composting activity from The City of Cardiff Council to Kelda Organic Energy (Cardiff) Ltd
Additional information received in response to draft permit consultation.	16/07/15	Odour management plan, and bioaerosol monitoring plan.
Permit determined EPR/AB3096CP	29/02/16	Permit for open windrow composting activity issued to Kelda Organic Energy (Cardiff) Ltd

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/AB3096CP

The Natural Resources Body for Wales (“Natural Resources Wales”) authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Kelda Organic Energy (Cardiff) Ltd (“the operator”),

whose registered office is

**Western House
Halifax Road
Bradford
West Yorkshire
BD6 2SZ**

company registration number **08356859**

to operate waste operations at

**Lamby Way Open Windrow Composting Facility
Lamby Way
Rumney
Cardiff
CF3 4EQ**

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

Name	Date
Holly Noble	29/02/16

Authorised on behalf of Natural Resources Wales

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 Avoidance, recovery and disposal of wastes produced by the activities

1.2.1 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.

1.2.2 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").

2.2 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 (a) 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 Natural Resources Wales.

- (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales 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 Natural Resources Wales.

2.3.2 Waste shall only be accepted if:

- (a) it is of a type and quantity listed in schedule 2 table(s) S2.1 [, S2.2 etc.]; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

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 table S3.1.

3.1.2 The limits given in schedule 3 shall not be exceeded.

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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Odour

- 3.2.1 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 Natural Resources Wales, 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 Noise and vibration

- 3.3.1 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 Natural Resources Wales, 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.
- 3.3.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

3.4 Pests

- 3.4.1 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.
- 3.4.2 The operator shall:
- (a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by Natural resources Wales.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) process monitoring specified in table S3.1
- 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.

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 Natural Resources Wales, 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 Natural Resources

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 Within one month of the end of each quarter, the operator shall submit to Natural Resources Wales 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 submit to Natural Resources Wales 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 recommissioning 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 Natural Resources Wales.

4.3 Notifications

- 4.3.1 Natural Resources Wales shall be notified without delay following the detection of:
- (a) 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;
 - (b) the breach of a limit specified in the permit; or
 - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 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 Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Natural Resources Wales 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:

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

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) 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) Natural Resources Wales 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.

4.4 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 "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
A1 – Biological treatment: open windrow composting	<p>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)</p> <p>R3: Recycling/ reclamation of organic substances which are not used as solvents</p>	<p>All non-hazardous waste must be stored and treated on an impermeable surface with sealed drainage.</p> <p>All treatment must take place:</p> <ul style="list-style-type: none"> - within a well-ventilated building equipped with suitable containment measures, or - outdoors. <p>Physical treatment of biological waste prior to and/or post biological treatment is permitted.</p> <p>Biological treatment operations shall be limited to:</p> <ul style="list-style-type: none"> - aerobic composting in open windrows - maturation <p>of permitted waste for the purpose of recovery only.</p> <p>The storage, physical treatment, composting and maturation of wastes must not take place in any form of enclosed reactor vessel.</p> <p>The storage, physical treatment, composting and maturation of wastes under anaerobic conditions shall be prevented, or where that is not possible, minimised.</p> <p>The biological treatment of waste for the purpose of recovery or a mix of recovery and disposal, shall be limited to less than 75 tonnes per day in total at the site.</p> <p>The maximum quantity of waste handled at any one time shall not exceed 500 tonnes.</p> <p>Waste types as specified in Table S2.1</p>

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Odour Management Plan (OMP) dated February 2015, reference - 407.04012.00009/OMP: - all sections	04/03/15
	Site Specific Bioaerosol Risk Assessment (SSBRA) dated February 2015, reference - 407.04012.00009/SSBRA: - all sections	
Technical Guidance Note: 'How to comply with your environmental permit'	All relevant sections	N/A

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Permitted waste types and quantities for open windrow composting activity	
Maximum quantity	The maximum quantity of waste to be accepted on site shall not exceed 25,000 tonnes per year.
Exclusions	Notwithstanding the waste types set out in this table, wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> • catering waste and other wastes containing animal by-products • consisting solely or mainly of dusts, powders or loose fibres • odour producing or likely to be odour producing
Waste code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
12 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 07	wastes from forestry
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Outlets from bio-filters (if fitted) emitting treated air from inside buildings.	None specified	Treated air from inside buildings	None specified	-	-	Gas sampling points must be fitted on each outlet and used as required to ensure compliance with conditions of this permit.

Table S3.2 Process monitoring requirements for composting in open windrows

Monitoring point	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
Internal for each windrow and for any sample of waste or compost	Temperature	None specified	Thermocouple probe	<p>Windrows shall be maintained at either:</p> <ul style="list-style-type: none"> i) an internal temperature of at least 55°C for at least fourteen consecutive days with a minimum of five turnings, or ii) an internal temperature of at least 65°C for at least seven consecutive days with a minimum of three turnings <p>Windrows shall be turned at a frequency that maintains aerobic conditions within the windrow.</p> <p>Records shall be made in the site diary of the date and results of internal temperature monitoring and the date on which each windrow is turned.</p> <p>Monitoring equipment must be available on-site and used as required to ensure compliance with the conditions of this permit.</p> <p style="text-align: right;"><i>Table continued overleaf</i></p>

Table S3.2 Process monitoring requirements for composting in open windrows

Monitoring point	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
	Moisture	None specified	Moisture meter	<p>Windrow content shall be maintained between 40% (w/w) and 60% (w/w) during composting.</p> <p>Where the moisture content of a windrow has been measured as being above 60% (w/w), remedial action shall be taken to decrease the moisture content to between 40% (w/w) and 60% (w/w).</p> <p>Where the moisture content of a windrow has been measured as being below 40% (w/w), remedial action shall be taken to increase the moisture content to between 40% (w/w) and 60% (w/w).</p> <p>Records shall be made in the site diary of the date and results of moisture content monitoring.</p> <p>Monitoring equipment must be available on-site and used as required to ensure compliance with the conditions of this permit.</p>

Schedule 4 - Reporting

There is no reporting under this schedule.

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.

“Annex II” means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“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 Natural Resources Wales 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.

“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.

“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.

“emissions to land” includes emissions to groundwater.

“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 or background concentration limit..

“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.

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

“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 receptors” means the nearest place to the composting operations where people are likely to be for prolonged or frequent periods. This term would therefore apply to dwellings (including any associated gardens) and to workplaces where workers would frequently be present. It does not apply to the operators of composting facilities or their staff while carrying out the composting operation as their health is covered by Health and Safety legislation.

“Pests” means Birds, Vermin and Insects.

“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 on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the list of wastes established by Commission Decision 2000/532/EC as amended from time to time (the ‘List of Wastes Decision’) 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.

