

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Wyke Farms Limited

Lambrook AD Plant Lamyatt Shepton Mallet Somerset BA4 6NX

Variation application number EPR/PB3037RS/V004

Permit number EPR/PB3037RS

Lambrook AD Plant Permit number EPR/PB3037RS

Introductory note

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

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.

Wyke Farms Limited currently operates an anaerobic digestion plant which processes cattle and pig slurry, farmyard manure, dairy waste, whey permeate, grass and maize silage, rape and cereal straw as well as non-hazardous glycerol to produce heat and power. The variation application has requested the following changes to the permit:

- An increase in the permit boundary
- The addition of two new digester tanks of the same design as the existing tanks

The volume of each tank is 4,600 m³. The addition of the two new tanks therefore results in an increase in storage and treatment capacity of 9,200 m³ at the site – bringing the total primary digestion capacity to 18,400 m³. The tanks will be located wholly within a new concrete bund designed and constructed in accordance with the principles of CIRIA C736. Each tank will benefit from a membrane leak detection system beneath the tank base.

The site is in a predominantly rural location. The nearest residential property is approximately 150m north northeast of the site.

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 for Environmental Permit EPR/PB3037RS/A001	Duly made 26/02/2013	Application for an anaerobic digestion facility.	
Additional information received	14/03/2013	Revised odour management plan, site drainage plan, environmental management system, process flow diagram, air emission data and process details submitted.	
Additional information received	22/03/2013	Stack height detailed	
Additional information received	11/04/2013	Location plan of second CHP engine submitted	
Additional information received	22/04/2013	Process details, updated site drainage plan, risk assessment and site plan submitted	
Additional information received	26/04/2013	Odour and Noise Management Plan V04 April 2013, Site Drainage Plan titled 'Lambrook AD site plan V06 EA 25APR13', Environmental Management System version 3, bioaerosol risk assessment, details on digestate storage and use and details on the process submitted.	
Environmental Permit EPR/PB3037RS	Determined 17/05/2013	Environmental Permit EPR/PB3037RS issued to Wyke Farms Limited.	

Status log of the permit			
Description	Date	Comments	
Application for variation EPR/PB3037RS /V002	Withdrawn 07/04/2014	Returned to applicant following receipt of withdrawal request.	
Application for variation EPR/PB3037RS/V003	Duly made 17/09/2014	Application for substantial variation – included increase in tonnage, addition of new waste code (07 01 08*) and a storage lagoon. Current bespoke updated to modern format and consolidated with former Standard Rules SR2010No17 permit EPR/BB3009MK.	
Schedule 5 Notice served	29/10/2014	Seeking further information on operating techniques, site infrastructure and clarification of existing site processes.	
Schedule 5 response received	05/11/2014	Receipt of full response.	
Variation determined EPR/PB3037RS/V003	28/11/2014	Varied and consolidated permit issued in modern condition format.	
Application for variation EPR/PB3037RS/V004	Duly made 19/01/2017	Increase in permit boundary and addition of 2 new digester tanks.	
Variation determined EPR/PB3037RS/V004 Billing ref: WP3437DG	26/05/2017	Varied and consolidated permit issued in modern condition format.	

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulations 18 and 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/PB3037RS

Issued to

Wyke Farms Limited ("the operator")

whose registered office is

White House Farm Wyke Champflower Bruton Somerset BA10 0PU

company registration number 00751654

to operate a regulated facility at

Lambrook AD Plant Lamyatt Shepton Mallet Somerset BA4 6NX

to the extent set out in the schedules.

The notice shall take effect from 26/05/2017.

Name	Date
Abraham Ejim	26/05/2017

Authorised on behalf of the Environment Agency

Schedule 1 - changes in the permit

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 2016

Permit number

EPR/PB3037RS

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/PB3037RS/V004 authorising,

Wyke Farms Limited ("the operator"),

whose registered office is

White House Farm Wyke Champflower Bruton Somerset BA10 0PU

company registration number 00751654

to operate an installation at

Lambrook AD Plant Lamyatt Shepton Mallet Somerset BA4 6NX

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

Name	Date
Abraham Ejim	26/05/2017

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:
 - 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.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

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 and S3.2.
- 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.

3.5 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 and S3.2;
 - (b) process 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 and S3.2 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.

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.

4.3 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:

- (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:

- (c) the death of any of the named operators (where the operator consists of more than one named individual);
- (d) any change in the operator's name(s) or address(es); and
- (e) 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 activ	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 Anaerobic digestion of permitted waste in an enclosed vessel and/or building and on an impermeable surface followed by treatment, export and burning of biogas produced from the process	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 (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment	R3: Recycling/reclamation of organic substances which are not used as solvents R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	From receipt of permitted waste through to digestion and recovery of by-products (digestate). Anaerobic digestion of permitted waste including pasteurisation and chemical addition. Pre-treatment of waste prior to digestion including depackaging, shredding, sorting, screening, compaction, baling, mixing and maceration. Treatment of digestate in an enclosed building and on an impermeable surface including screening to remove plastic residues, centrifuge or pressing and addition of thickening agents and drying. The maximum quantity of glycerol, accepted under waste code 19 02 10, stored on site must not exceed 500m³ at any one time. Gas cleaning by biological or chemical scrubbing		
			Transfer of digestate to the digestate lagoon must be by sealed substrate pipeline only.		
	Directly Associated Activity	<i> </i>			
A2	Steam and electrical power supply	Combustion of biogas in 2 combined heat and power (CHP) engines with an aggregated thermal input of 3 MWth R1:Use principally as a fuel to generate energy	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion via CHP engine(s) and/or auxiliary boiler(s) with the release of combustion gases		
А3	Emergency flare	Use of an auxiliary flare required only during periods of breakdown or	From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the		

Activity	Activity listed in Schedule	Description of specified	Limits of specified
reference	1 of the EP Regulations	activity and WFD Annex I and II operations	activity and waste types
		maintenance of the CHP engines.	release of combustion gases
A4	Gas upgrading	Upgrading of biogas to biomethane (including the removal of moisture and other substances such as carbon dioxide, hydrogen sulphide, volatile organic compounds etc.) for injection into the National Grid.	From the receipt of biogas produced at the on-site anaerobic digestion process to injection into the National Grid. This includes return of off-specification biogas for combustion to the on-site CHP engines and/or emergency flare.
A5	Heat treatment	Pasteurisation of permitted waste using heat	From the receipt of waste to recovery
A6	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, ferric chloride, activated carbon etc.	From the receipt of raw materials to despatch for use within the facility
A7	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in four primary digesters and one secondary digester.	From the receipt of biogas and propane to despatch for use within the facility.
		Storage of propane in two dedicated tanks.	
A8	Digestate storage	Storage of liquid/solid digestate in a lagoon.	From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site
			Transfer of digestate to the digestate lagoon must be by sealed substrate pipeline only.
A9	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water.	From the collection of uncontaminated roof and site surface water from non-operational areas only in attenuation pond or storage tank to re-use within the facility or discharge off-site
A10	Storage and treatment of hazardous glycerol	R3 – addition of hazardous glycerol to the Anaerobic Digestion (AD) process. R13: Storage of waste pending any of the operations numbered R1 to	The maximum quantity of hazardous glycerol, accepted under waste code 07 01 08*, treated within the AD plant must not exceed 10 tonnes per day. Storage

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	
		R12 (excluding temporary storage, pending collection, on the site where it is produced)	must not exceed 100 tonnes at any one time. From receipt and storage of glycerol through to biological treatment.	

Table S1.2 Operating techniques				
Description	Parts	Date Received		
Application EPR/PB3037RS/A001 Additional information	Emissions, bund and process details	14/03/13		
Application EPR/PB3037RS/A001 Additional information	Environmental Management System version 3,, section 4.5, 6, 7.1 and Appendix C sections EMP.001.001 and EMP.001.002,	26/04/13		
Application EPR/PB3037RS/A001 Additional information	Risk Assessment Hazardous Materials	26/04/13		
Application EPR/PB3037RS/A001 Additional information	Wyke Farms Ltd Bio-aerosol Risk Assessment	26/04/13		
Application EPR/PB3037RS/A001 Additional information	Site Drainage Plan titled 'Lambrook AD site plan V06 EA 25APR13'	26/04/13		
Application EPR/PB3037RS/A001 Additional information	Odour and Noise Management Plan V04 April 2013	26/04/13		
Application EPR/PB3037RS/V003	Earthcare Technical Ltd – Site Specific environmental management system (EMS) bespoke installation environmental permit anaerobic digestion & use of resultant biogas facility (Document Reference: ETL/JSC/00070/R00098: Wyke Farm EMS. V4, 20 11 14)	20/11/14		
Application EPR/PB3037RS/V003	Noise Management Plan (Odour and Noise Management Plan) V04 April 2013	17/09/14		
Application EPR/PB3037RS/V003	Earthcare Technical Ltd - Odour Management Plan(OMP) Anaerobic digestion & Use of resultant biogas facility (Document Reference: ETL/JSC/00070/R00100/V1/05.11.14	05/11/14		
Application EPR/PB3037RS/V003	Accident Management Plan (AMP) V.2 (Document Reference: ETL/JAS/00070/R00101), July 2014	17/09/14		
Application EPR/PB3037RS/V003	Accident Management Plan Wyke Farms Biogas Plant (Document Reference: Biogas AMP Nov 4 2014 Issue 1_20 11 14+ apps.pdf), November 2014	20/11/14		
Application EPR/PB3037RS/V003	Site Layout & Drainage Plan, Doc. Ref: ETL/JAS/00070/EPR03	17/09/14		
Application EPR/PB3037RS/V003	Response report (PRC) – Normal Variation Application – bespoke installation environmental permit EPR/PB3037RS)	17/09/14		

Table S1.2 Operating techniques			
Description	Description Parts		
	Section 3.6 Response to Q3c – type and amounts of raw materials (Document Reference: ETL/JSC/00070/R00097)		
Application EPR/PB3037RS/V003	EPR-PB3037RS/V003: Response to Schedule 5 Notice requiring further information for Wyke Farms Ltd, Doc Ref: ETL_JAS_Res_Sched 5Notice-FINAL_05 11 14+apps.pdf	05/11/14	
Application EPR/PB3037RS/V004	ETL/230/MNF14/R009: Wyke Farms Ltd, Odour Management Plan V.3 October 2016	05/11/16	
Application EPR/PB3037RS/V004	Accident Management Plan Issue 9 dated 31/10/2016	05/11/16	
Application EPR/PB3037RS/V004	Response Report (RR) – Substantial Variation October 2016	05/11/16	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC1	The operator must submit a written report and plan to the Environment Agency for approval. The report must contain the results of a review of the site's storage and containment measures and procedures against indicative Best Available Techniques (BAT) given in Sector Guidance Note S5.06 and the standards set in CIRIA C736 Guidance. The operator must specifically consider the provision of impermeable bunding around storage tanks, leak detection systems, covering of the digestate lagoon and slurry store(s) and the provision of appropriate secondary containment.	Complete	
	The plan must contain dates for the implementation of individual measures identified in order to ensure compliance with indicative BAT as provided in Sector Guidance Note S5.06 and CIRIA C736 Guidance.		
	The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission and approval of the plan.		
	You must implement the identified measures given in the plan as approved, and from the date stipulated by the Environment Agency.		
IC2	The operator must submit a written report to the Environment Agency for approval. The report must contain the results of a review of the site's preacceptance and acceptance procedures ensuring indicative BAT is met as detailed in Sector Guidance Note S5.06. The report must contain dates for the implementation of individual measures identified as requiring action or improvement from the review.	Complete	
	The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission and approval of the report.		
	You must implement the actions and outcomes of the report as approved, and from the date stipulated, by the Environment Agency.		
IC3	The Operator must submit a written report to the Environment Agency for approval. The report must contain the results of a review of the subsurface infrastructure and pipework across the site. The operator must identify either a plan to provide secondary containment and/or leakage	Complete	

Reference	1.3 Improvement programme requirements Date		
Reference	Requirement detection for all existing sub-surface pipework, sumps and storage vessels, including detailed improvement and monitoring programmes or their replacement with above ground infrastructure that meets BAT.	Date	
	The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission and approval of the plan.		
	You must implement the actions and outcomes of the report as approved, and from the date stipulated, by the Environment Agency.		
IC4	Following completion of the structural review of the slurry lagoon, provide a revised risk assessment identifying any additional measures required to protect land and groundwater, with a timeframe to implement any changes required.	Complete	
	Submit revised written procedures, in accordance with sector specific BAT (Sector Guidance Note S5.06) and CIRIA C736 standards, for all filling, stirring, emptying, maintenance and inspection activities associated with use of the lagoon following completion of the lagoon's structural review.		
IC5	The operator shall carry out a monitoring study to verify the assumptions made in the application in relation to the releases of pollutants to air. The study shall include the monitoring of point source releases to air from the biogas upgrading plant emission point A4 during normal operation, having regard to the Environment Agency's technical guidance M2 and to MCERTS standards. As a minimum, two separate monitoring campaigns in a year shall be completed (one monitoring survey six months following commencement of the upgrading plant operation). The pollutants to be monitored shall include:	Complete	
	total volatile organic compounds; and		
IC6	hydrogen sulphide Following the completion of IC5, the operator shall undertake an environmental impact assessment of all point source releases to air, using the information obtained through the emissions monitoring. The environmental impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review.	26/08/2017 or as otherwise agreed with the Environment Agency	
	The environmental impact assessment shall include:		
	 reports showing details of the monitoring undertaken and the results obtained; 		
	 results of the assessment of long and short term impacts from the emissions in accordance with Environment Agency Guidance Air emissions risk assessment for your environmental permit 		
	 a completed H1 assessment software tool If the H1 assessment shows potential long or short term impacts from the emissions, the operator shall propose an action plan to reduce the impacts of the substances identified. 		
	Following the submission of the documentation, the Environment Agency shall assess whether setting of emission limits or routine monitoring is required.		
	The Environmental Impact Assessment will take into account the increased anaerobic digestion treatment capacity (as authorised in		

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
	EPR/PB3037RS/V004). Particular attention must be paid to H ₂ S from the off-gas of the upgrading plant for odour impacts. We are satisfied that H ₂ S annoyance is not likely based on the measurements provided at 37.3 % treatment capacity. Details of the new emission concentration of H ₂ S must be provided if there is an increase of treatment capacity from 37.3%, as well as the maximum H ₂ S slip load that can be realistically expected when the gas to grid is operated at its fullest capacity.		
	If an odour problem arises, details of what measures can and will be taken must be submitted to ensure there is no odour problem.		

Table S1.4 F	Table S1.4 Pre-operational measures for future development				
Reference	Operation	Pre-operational measures			
1	Activity A10 as set within table S1.1 - Storage and acceptance of non-hazardous and hazardous glycerol.	Before accepting waste code 07 08 01* (glycerol residue from biodiesel manufacture from non-waste vegetable oils only), the operator shall produce and implement written procedures (and any amendments to existing procedures) that accord with section 2.1.1, 2.1.2 and 2.1.3 of Sector Guidance Note S5.06 (Version 5), May 2013, to assess waste prior to acceptance on the site. A copy of these procedures shall be submitted to the Environment Agency for approval. This waste shall not be accepted unless we have given prior written approval under this condition.			
4	Activity A8 as set within table S1.1	The operator must not transfer digestate to the digestate lagoon via the below ground sealed substrate pipeline until either leak detection or secondary containment has been installed for the below ground pipeline, in accordance with BAT. The operator must seek written permission, from the Environment Agency, to allow the transferring of digestate to the digestate lagoon via the sealed substrate pipeline upon completion of the above measures in accordance with BAT.			

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels				
Raw materials and fuel description	Specification			
Chemicals	Operational requirement only			
Fuel oil	Operational requirement only			
Vegetable matter (energy crops)	Substantially free of non-vegetable matter			
Maize silage	Substantially free of non-vegetable matter			

Table S2.2 Permitte	d waste types and quantities for anaerobic digestion
Maximum quantity	Annual throughput shall not exceed 150,000 tonnes.
Exclusions	Wastes having any of the following characteristics shall not be accepted: - 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
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 01	sludges from washing and cleaning - food processing waste, food washing waste
02 01 03	plant-tissue waste including husks, cereal dust, waste animal feeds, off-cuts from vegetable and fruit and other vegetation waste
02 01 06	animal faeces, urine and manure including spoiled straw
02 03	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
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing (biodegradable only)
02 03 05	sludges from on-site effluent treatment (biodegradable only)
02 04	wastes from sugar processing
02 04 03	sludges from on-site effluent treatment (biodegradable only)
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing including solid and liquid dairy products, milk, food processing wastes, yoghurt, whey
02 05 02	sludges from on-site effluent treatment (biodegradable only)
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing (biodegradable only)
02 06 03	sludges from on-site effluent treatment (biodegradable only)
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)

Table S2.2 Permitte	d waste types and quantities for anaerobic digestion
Maximum quantity	Annual throughput shall not exceed 150,000 tonnes.
Exclusions	Wastes having any of the following characteristics shall not be accepted: - 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
Waste code	Description
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials including brewing waste, food processing waste, fermentation waste
02 07 02	wastes from spirits distillation including spent grains, fruit and potato pulp, sludge from distilleries
02 07 04	materials unsuitable for consumption or processing including brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks, fruit juice
02 07 05	sludges from on-site effluent treatment (biodegradable only)
07	Wastes from organic chemical processes
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 08*	other still bottoms and reaction residues - glycerol residue from biodiesel manufacture from non-waste vegetable oils only. Note 1
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09 - glycerol not designated as hazardous i.e. excludes EWC 19 02 08
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of source segregated municipal waste
19 06 05	liquor from anaerobic treatment of animal and vegetable waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
	ot be accepted on site under this code until the completion of pre-operational development 1 & 2, as set within table S1.4.

Schedule 3 – Emissions and monitoring

Table S3.1 Point	Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method	
A1 [Point A1 on site plan in Schedule 7]	CHP engine 1 [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Hourly average	Annual	BS EN 14792	
		Sulphur dioxide	350 mg/m ³			BS EN 14791	
		Carbon monoxide	1400 mg/m ³			BS EN 15058	
		Total VOCs	1000 mg/m ³			BS EN 12619:2013	
A2 [Point A2 on site plan in schedule 7]	CHP engine 2 [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Hourly average	Annual	BS EN 14792	
		Sulphur dioxide	350 mg/m ³			BS EN 14791	
		Carbon monoxide	1400 mg/m ³			BS EN 15058	
		Total VOCs	1000 mg/m ³			BS EN 12619:2013	
A3 [Point A3 on site plan in schedule 7]	Emergency flare [note 2]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Hourly average	[note 3]	BS EN 14792	
		Carbon monoxide	50 mg/m ³			BS EN 15058	
		Total VOCs	10 mg/m ³			BS EN 12619:2013	
A4 [Point A4 on site plan in schedule 7]	Biogas upgrading plant	No parameter set	No limit set				
Pressure relief valves	Digesters	No parameter set	No limit set		Record of operating hours		
Vents from tanks	Oil/Fuel Storage tank(s)	No parameter set	No limit set				

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method

Note 1 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 5 per cent (dry gas). The measurement uncertainty specified in LFTGN08 v2 2010 shall apply.

Note 2 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 3 per cent (dry gas). The measurement uncertainty specified in LFTGN05 v2 2010 shall apply.

Note 3 - Monitoring to be undertaken 12 months after commissioning of the emergency flare. Following commissioning, monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours).

Table S3.2 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
W1 on site plan in schedule 7 emission to local land drain.	Uncontaminated site source water from roofs and non-operational areas	No parameter set	No limit set		Weekly	Visual assessment

Table S3.3 Process monitoring requirements						
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications		
Biogas from Digesters	Flow	Continuous	In accordance with EU weights and measures Regulations			
Biogas from Digesters	Methane	Continuous		Gas monitors to be calibrated every 6 months to manufacturer's recommendations		
	Hydrogen sulphide		Not applicable			
Waste reception area; Digesters and storage tanks and lagoon	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary		
Digesters, storage tanks and lagoon.	Integrity checks	Weekly	Visual assessment			

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		
Emissions to air	A1, A2, A3	Every 12 months	1 January		
Parameters as required by condition 3.5.1.					

Table S4.2 Annual production/treatment			
Parameter	Units		
Electricity generated	MWh		
Biomethane generated	tonnes or m ³		
Whole digestate	tonnes		
Liquid digestate	tonnes or m ³		
Solid digestate	tonnes		

Table S4.3 Performance parameters				
Parameter	Frequency of assessment	Units		
Water usage	Annually	tonnes or m ³		
Energy usage	Annually	MWh		
Biomethane usage	Annually	tonnes or m ³		
Emergency flare operation	Annually	hours		
Electricity exported	Annually	MWh		
Biomethane exported	Annually	MWh		
CHP engine usage	Annually	hours		
CHP engine efficiency	Annually	%		
Auxiliary boiler usage	Annually	hours		

Table S4.4 Reporting forms				
Media/parameter	Date of form			
Air	Form air 1 or other form as agreed in writing by the Environment Agency	28/11/14		
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	28/11/14		
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	28/11/14		

Table S4.4 Reporting forms				
Media/parameter	Reporting format	Date of form		
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	28/11/14		

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	
	any malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is 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 t	he 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	

(b) Notification requirements for	the breach of a li	imit	
To be notified within 24 hours of	detection unless	otherwise specified k	pelow
Measures taken, or intended to be taken, to stop the emission			
Time periods for notification follo	wing detection o	of a breach of a limit	
Parameter			Notification period
(c) Notification requirements for	the detection of	any significant advers	e 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 submit	ted as soo	n as practicat	ole
Any more accurate information on t notification under Part A.	he matters for		
Measures taken, or intended to be a recurrence of the incident	aken, to prevent		
Measures taken, or intended to be limit or prevent any pollution of the which has been or may be caused l	environment		
The dates of any unauthorised emis facility in the preceding 24 months.	ssions from the		
Name*			
Post			
Signature			
Date			

^{*} authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

"anaerobic digestion" means a process of controlled decomposition of biodegradable materials under managed conditions where free oxygen is absent, at temperatures suitable for naturally occurring mesophilic or thermophilic anaerobes and facultative anaerobe bacteria species, which convert the inputs to a methanerich biogas and whole digestate.

"animal waste" means any waste consisting of animal matter that has not been processed into food for human consumption.

"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.

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

"digestate" means material resulting from an anaerobic digestion process.

"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 2016 No.1154 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

"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.

"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.

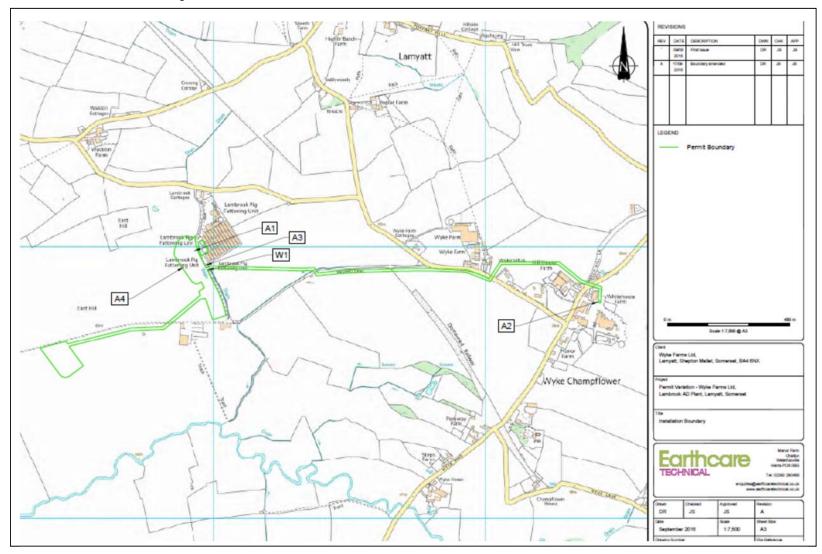
"year" means calendar year ending 31 December.

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: PB3037RS Operator: Wyke Farms Limited

Facility: Lambrook AD Plant Form Number: Air1 / 28/11/14

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1	Oxides of nitrogen (NO and NO2 expressed as NO2)	500 mg/m3	1 hour period		BS EN 14792		
A1	Sulphur dioxide	350 mg/m3	1 hour period		BS EN 14791		
A1	Carbon monoxide	1400 mg/m3	1 hour period		BS EN 15058		
A1	Total VOCs	1000 mg/m3	1 hour period		BS EN 12619:2013		
A2	Oxides of nitrogen (NO and NO2 expressed as NO2)	500 mg/m3	1 hour period		BS EN 14792		
A2	Sulphur dioxide	350 mg/m3	1 hour period		BS EN 14791		
A2	Carbon monoxide	1400 mg/m3	1 hour period		BS EN 15058		
A2	Total VOCs	1000 mg/m3	1 hour period		BS EN 12619:2013		
A3	Oxides of nitrogen (NO and NO2 expressed as NO2)	150 mg/m3	1 hour period		BS EN 14792		
A3	Carbon monoxide	50 mg/m3	1 hour period		BS EN 15058		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A3	Total VOCs	10 mg/m3	1 hour period		BS EN 12619:2013		

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed	Date
(Authorised to sign as representative of Operator)	

Permit Number:	PB3037	7RS	Operator:	Wyke Farms Limited
Facility:	Lambro	ok AD Plant	Form Number:	WaterUsage1 / 28/11/14
Reporting of Water Usag	ge for the yea	ar		
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	e of Operator)			

)37RS	Operator:	Wyke Farms Limited
rook AD Plant	Form Number:	Energy1 / 28/11/14
e year		
Usage		Specific Usage (MWh/unit output)
у	Primary Energy (MWh)	
ary energy = 2.4		
	ary energy = 2.4	ary energy = 2.4

(Authorised to sign as representative of Operator)

Permit Number:	PB3037RS	Operator:	Wyke Farms Limited
Facility:	Lambrook AD Plant	Form Number:	Performance1 / 28/11/14
Reporting of other perfo	ormance indicators for the pe	eriod DD/MM/YYYY to [DD/MM/YYYY
Parameter		Units	
Total raw material used		tonnes	
CHP engine usage		hours	
CHP engine efficiency		%	
Auxiliary boiler usage		hours	
Emergency flare operation		hours	
Electricity exported		MWh	
Biomethane exported		tonnes	or m3
		·	
Operator's comments:			
oporator o commente.			
No. and	5		
Signed			
Authorised to sign as representativ	re of Operator)		