

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Barfoot Energy Limited

Sefter Farm
Pagham Road
Bognor Regis
West Sussex
PO21 3PX

Variation application number

EPR/GP3293LW/V004

Permit number

EPR/GP3293LW

Sefter Farm

Permit number EPR/GP3293LW

Introductory note

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

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.

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 Barfoot Energy Limited currently operates an Anaerobic Digestion Facility, with a thermal input of 5,458 megawatts. It carries out the following ‘newly prescribed activity’:

Section 5.4 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 treatment activity is anaerobic digestion) involving biological treatment.

Anaerobic Digestion takes place in 3 tanks. The production of biogas used in 2 x Combined Heat and Power Modules of electrical capacity 2.3Mwh (combined) which supply the AD process. Waste liquid digestate goes to liquor storage lagoon with 20000m³ volume, waste solid digestate is exported off site, in the silage pit / feed-hoppers areas, the effluent goes to waste reception tank to be used as a part of the anaerobic digestion system. The storm water from the area is diverted to digestate storage lagoon, and the roof rain water discharged to a farm ditch.

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/LP3730TM/A001	17/02/2010	Application for a bespoke permit to operate an AD facility for biological treatment of vegetable trimmings. (EAWML101484)
Application EPR/LP3730TM/A001	11/03/2010	Duly made
Application reference changed to EPR/GP3293LW/A001	22/03/2010	Confirmation that proposal falls to be regulated as a waste facility, rather than as an installation
Request for extension	12/07/2010	Request to extend determination date to 30/07/10.

Status log of the permit		
Description	Date	Comments
Further extension requested	22/07/2010	Applicant agrees to extension. In addition, request from applicant to change from a bespoke permit application to a Standard Rules Permit SR2010No15.
Further extension requested	30/07/2010	Request to further extend determination date to 31/08/10 to cater for additional information on the Standard Rules permit request.
Permit determined EPR/GP3293LW	04/08/2010	Standard rules permit SR2010No15 issued to Barfoot Energy Limited.
Variation Application EPR/GP3293LW/V002	Duly made 06/08/2013	Application to vary SR2010No15 to a bespoke permit, to allow for additional CHP genset.
Variation determined EPR/GP3293LW/V002	28/10/2013	Bespoke permit issued in replacement for standard rules
Variation Application EPR/GP3293LW/V003	Duly made 06/01/2014	Application to add waste codes to Bespoke Permit
Variation determined EPR/GP3293LW	07/02/2014	Varied permit issued.
Variation Application EPR/GP3293LW/V004	Duly made 10/11/2015	Application to vary and update the permit to IED conditions.
Variation determined EPR/GP3293LW (Billing ref:)	23/12/2015	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 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/GP3293LW/V004

Issued to

Barfoot Energy Limited (“the operator”)

whose registered office is

**Sefter Farm
Pagham Road
Bognor Regis
West Sussex
PO21 3PX**

company registration number 06649285

to operate a regulated facility at

**Sefter Farm
Pagham Road
Bognor Regis
West Sussex
PO21 3PX**

to the extent set out in the schedules.

The notice shall take effect from 23/12/2015

Name	Date
Rebecca Warren	23/12/2015

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/GP3293LW/V004

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/GP3293LW/V004 authorising,

Barfoot Energy Limited (“the operator”),

whose registered office is

**Sefter Farm
Pagham Road
Bognor Regis
West Sussex**

PO21 3PX

company registration number 06649285

to operate an installation at

**Sefter Farm
Pagham Road
Bognor Regis
West Sussex
PO21 3PX**

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

Name	Date
Rebecca Warren	23/12/2015

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 blue 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.

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.
- 3.1.3 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 table in schedule 3 to this permit:
- (a) point source emissions 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.
- 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 table S3.1 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.

4.3 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 (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	<p>From receipt of waste through to digestion and recovery of by-products (digestate).</p> <p>Anaerobic digestion of waste in 3 tanks followed by burning of biogas produced from the process.</p> <p>The maximum throughput of animal wastes shall be <10 tonnes per day.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
Directly Associated Activity			
A2	Storage of waste pending recovery	R13: Storage of waste pending the operations numbered R1 to R11 (excluding temporary storage, pending collection, on the site where it is produced)	<p>From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery and/or disposal.</p> <p>Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with sealed drainage.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2. Waste types as specified in Table S2.1</p> <p>Treatment of waste including shredding, sorting, screening, compaction, bailing, mixing and maceration.</p>

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
A3	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	<p>From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery.</p> <p>Pre-treatment of waste in enclosed building and on impermeable surface with sealed drainage system including shredding, sorting, screening, compaction, baling, mixing and maceration.</p>
			<p>Post-treatment of digestate in an enclosed building and on an impermeable surface with sealed drainage system, including screening to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying.</p> <p>Composting and maturation of digestate.</p> <p>Heat treatment (pasteurisation) of waste in a tank for the purpose of recovery.</p> <p>Gas cleaning by biological or chemical scrubbing.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
A4	Steam and electrical power supply	R1: Use principally as a fuel or other means to generate energy.	<p>From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases.</p> <p>Combustion of biogas in 2 combined heat and power (CHP) engine(s) with an aggregated thermal input of 2.3 MWth.</p>
A5	Emergency/auxiliary flare operation	D10: Incineration on land	<p>From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases.</p> <p>Use of an auxiliary flare required only during periods of</p>

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
			breakdown or maintenance of the CHP engines.
A6	Raw material storage	Storage of raw materials	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 roof space of digester(s).	From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
A8	Digestate storage	Storage of liquid digestate in a storage tank or a lagoon. Storage of solid digestate in a covered bay(s) or building(s).	From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site.
A9	Surface water collection and storage	Collection and storage of uncontaminated roof water is discharged to ditch and site surface storm water is diverted to digestate storage lagoons.	From the collection of uncontaminated roof and site surface water from non operational areas only to re-use within the facility or discharge off-site.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Management system reference BE001-3 QMS in response to question 3d Part C2 of the application form.	21/06/13
	Response to question 6 part C2 of the application form detailing the environmental risk assessment referenced as B001-5.	
	Table 3a and question 3a – technical standards , part C4 of application form	
	Odour management plan reference BE001-6 and Accident Management plan reference EP1 in response to section 3b, Table 3b – General Requirements, part C4 of the application form.	
	Section 4a,4b of Part C4 of the application document in response to section 4- monitoring	
Additional information	Confirmation of Table 1a of part C4 of application form detailing total treatment capacity per day	06/08/13

Schedule 2 – Waste types, raw materials and fuels

Raw materials and fuel description	Specification
Maize silage	Substantially free of non vegetable matter.

Maximum quantity	Annual throughput shall not exceed 75,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> ● Consisting solely or mainly of dusts, powders or loose fibres ● 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 01	sludges from washing and cleaning – food processing waste, food washing waste
02 01 02	animal tissue waste- Category 3 animal by-products (ABP) including blood, animal flesh, fish processing waste, fish carcasses, poultry waste- Category 2 ABP consisting only of paunch contents
02 01 03	plant-tissue waste including husks, cereal dust, waste animal feeds
02 01 06	animal faeces, urine and manure including spoiled straw
02 01 07	wastes from forestry
02 01 99	residues from commercial mushroom cultivation
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	sludges from washing and cleaning, process water, food washing waste
02 02 02	animal tissue waste (excluding animal blood). Category 3 animal by-products (ABP) including blood, animal flesh, fish processing waste, fish carcasses, poultry waste
02 02 03	Materials unsuitable for consumption or processing- coffee, food processing waste, jam, kitchen waste, fruit, vegetable oil, tobacco, tea, vegetable waste- waste fat from processing of meat or fish
02 02 04	sludges from on-site effluent treatment
02 02 99	sludges from gelatine production, animal gut contents
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 – coffee, mushroom compost, food processing waste, food washing waste, tobacco
02 03 04	biodegradable materials unsuitable for consumption or processing (other than those containing hazardous substances)
02 03 05	effluent from the processes referred to in sources of waste
02 03 99	sludge from production of edible fats and oils, seasoning residues, molasses

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 75,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> ● Consisting solely or mainly of dusts, powders or loose fibres ● Hazardous wastes
Waste code	Description
	residues, residues from production of potato, corn or rice starch only
02 04	wastes from sugar processing
02 04 03	biodegradable sludges from on-site effluent treatment
02 04 99	other biodegradable wastes
02 05	wastes from the dairy products industry
02 05 01	biodegradable materials unsuitable for consumption or processing (other than those containing hazardous substances)
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	biodegradable materials unsuitable for consumption or processing (other than those containing hazardous substances) including condemned food, food processing wastes, biscuits, chocolate, yeast, bread, bakery wastes
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
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	Biodegradable materials unsuitable for consumption or processing (other than those containing hazardous substances) including brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks, fruit juice
02 07 05	Sludges from on-site effluent treatment
02 07 99	spent grains, hops and whisky filter sheets/cloths
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 03	wastes from pulp, paper and cardboard production and processing
03 03 02	green liquor sludge – paper sludge, green liquor
03 03 08	wastes from sorting of paper and cardboard destined for recycling – cardboard, newspaper, tissues, paper.
03 03 10	fibre rejects and sludges i.e. paper pulp (de-inked only), paper fibre
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 05	tanning liquor free of chromium
04 01 07	sludges not containing chromium
04 02	wastes from the textile industry

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 75,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> ● Consisting solely or mainly of dusts, powders or loose fibres ● Hazardous wastes
Waste code	Description
04 02 10	organic matter from natural products, e.g. grease, wax
07	Wastes from organic chemical processes
07 01	Wastes from the manufacture, formulation, supply and use of basic organic chemicals
07 01 08	glycerol
07 02	wastes from the manufacture, formulation, supply and use of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic- must conform to BS EN 13432
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 01	paper and cardboard packaging – must conform to BS EN 13432- no manmade substances
15 01 02	Plastic packaging –must conform to BS EN 13432
15 01 03	wooden packaging
15 01 05	composite packaging – must conform to BS EN 13432
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 physical/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	waste types listed within this Table, and Table 2.1, that have been mixed together only
19 02 06	sludge types from waste listed within this Table, and Table 2.1, that have been heat treated only
19 02 10	glycerol not designated as hazardous i.e. excludes EWC code 19 02 08
19 05	wastes from the aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable wastes
19 05 03	off-specification compost from source segregated biodegradable waste.
19 05 99	composting liquors
19 06	wastes from anaerobic treatment of waste
19 06 03	liquor from anaerobic treatment of municipal waste
19 06 04	digestate from anaerobic treatment of source segregated biodegradable 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

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 75,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> ● Consisting solely or mainly of dusts, powders or loose fibres ● Hazardous wastes
Waste code	Description
19 08	wastes from waste water treatment plants not otherwise specified
19 08 09	grease and oil mixture containing edible oils and fats
19 08 12	sludges from industrial biological treatment
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 01	paper and cardboard
20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 01 38	untreated wood where no non biodegradable coating or preserving substance is present
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste - animal faeces, manure, garden waste, green waste, horticultural waste, plant tissue, parks and garden waste, hedge and tree trimmings, grass cuttings and leafy materials
20 03	other municipal wastes
20 03 01	mixed municipal waste – separately collected biowastes
20 03 02	waste from markets – allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables

Schedule 3 – Emissions and monitoring

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/A2- Stacks on CHP engines. Shown on the site plan in Schedule 7	Exhaust of spark ignition engines via individual, 7.2 m unimpeded vertical stacks	Nitrogen Oxides (NO _x expressed as NO ₂)	500 mg/m ³	Hourly average	Annual	In accordance with Agency guidance note M2 "Monitoring of stack emissions to air".
		Sulphur dioxide	350 mg/m ³			
		Carbon monoxide	1400 mg/m ³			
		Total VOCs	1000 mg/m ³			
A3 – Emergency/ auxiliary flare with a combustion temperature of at least 1,000 °C and a residence time of at least 0.3 seconds. Shown on the site plan in Schedule 7	Combustion products from Emergency/ auxiliary flare via a 4 m unimpeded vertical stack	Nitrogen Oxides	No set limit	None specified	--	
		Carbon monoxide	No set limit			

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

Table S4.2 Annual production/treatment	
Parameter	Units
Electricity generated	MWh
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
Raw material usage	Annually	tonnes or m ³
Emergency flare operation	Annually	hours
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form Air1 or other form as agreed in writing by the Environment Agency	23/12/15
Water usage	Form WaterUsage1 or other form as agreed in writing by the Environment Agency	23/12/15
Energy usage	Form Energy1 or other form as agreed in writing by the Environment Agency	23/12/15
Other performance indicators	Form Performance1 or other form as agreed in writing by the Environment Agency	23/12/15
Waste returns	E-waste returns as required by condition 4.2.5	--

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.

“ADQP” means Anaerobic Digestion Quality Protocol

“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 methane-rich 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 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

“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.

“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:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer.

“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.

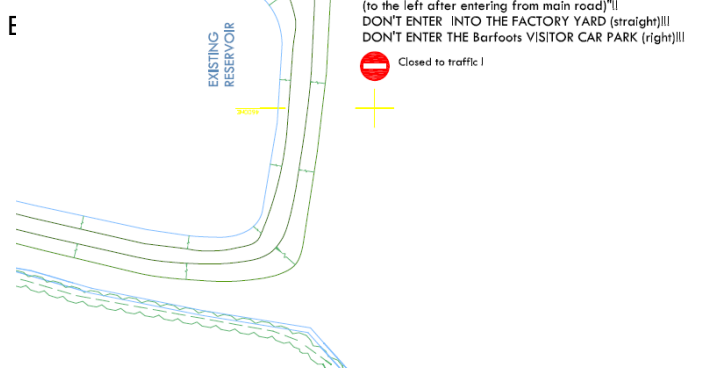
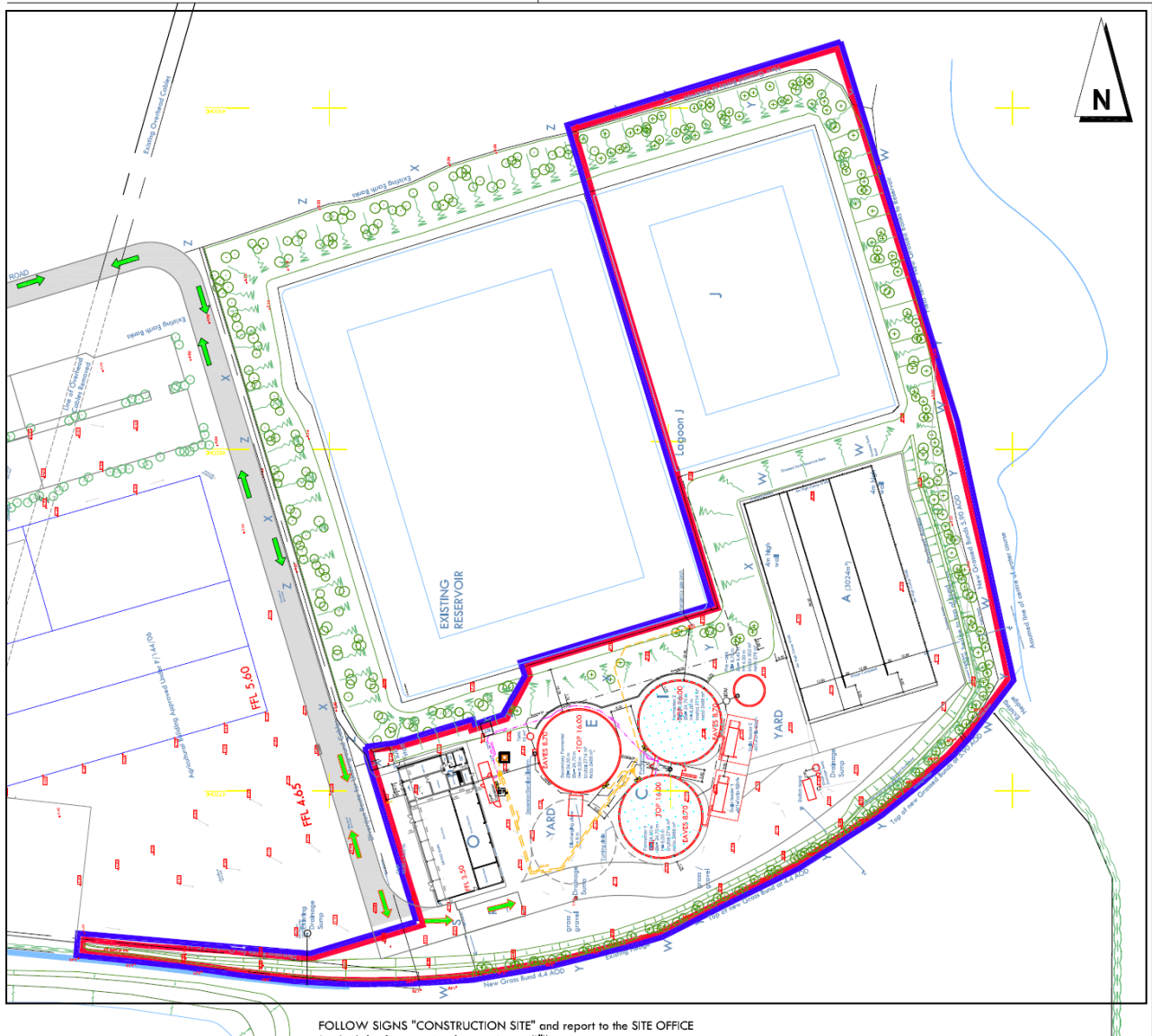
“year” means calendar year ending 31 December.

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 fuels, 3% or 5% for 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



Layout sketch										
This drawing is the property of MT - Energie GmbH & Co. KG. It is copyrighted and at the same time it is a trade secret according to § 17 ff. UWG. All rights are reserved in accordance with DIN 34 / ISO 16016.										
Rev.	Date	Name	Checked/Date	Name						
Sgd.	09.03.09	Hinz								
Rev.	17.08.09	Hinz								
Rev.	11.09.09	Hinz								
Rev.	29.09.09	Hinz								
Rev.	11.11.09	B.Walters								
Rev.	25.11.09	B.Walters								
Rev.										
Principal	Barfoot Energy Ltd. Saffer Farm Popham Bognor Regis West Sussex PO21 3PX United Kingdom			<table border="1"> <tr> <td>Draft author</td> <td>Date</td> <td>Signature</td> </tr> <tr> <td>Owner</td> <td>Date</td> <td>Signature</td> </tr> </table>	Draft author	Date	Signature	Owner	Date	Signature
Draft author	Date	Signature								
Owner	Date	Signature								
Scale	1:1.000									
Designation	Position plan									
Draw.-/Rev.-No.	CV 001 / 01									
Project-No.	UK 959									
Project designation	Biogas plant Barfoot Energy Ltd.									

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Permit Number: GP3293LW Operator: Barfoot Energy Ltd.

Facility: Sefter Farm Form Number: Air1 / 23/12/15

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 NO ₂ expressed as NO ₂)	500 mg/m ³	1 hour period		BS EN 14792		
A1	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A1	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A1	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A2	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	1 hour period		BS EN 14792		
A2	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A2	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A2	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A3	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No set limit	1 hour period		BS EN 14792		
A3	Carbon monoxide	No set limit	1 hour period		BS EN 15058		

[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: GP3293LW

Operator: Barfoot Energy Ltd

Facility: Sefter Farm

Form Number: WaterUsage1 / 23/12/15

Reporting of Water Usage for the year

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

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: GP3293LW

Operator: Barfoot Energy Ltd.

Facility: Sefter Farm

Form Number: Energy1 / 23/12/15

Reporting of Energy Usage for the year

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Biogas	tonnes or m ³		
Natural Gas	MWh		
Recovered Fuel Oil	tonnes		
Gas 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: GP3293LW

Operator: Barfoot Energy Ltd.

Facility: Sefter Farm

Form Number: Performance1 / 23/12/15

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

Parameter	Units
Total raw material used	tonnes
CHP engine usage	hours
CHP engine efficiency	%
Emergency flare operation	hours
Electricity exported	MWh

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)