

# Permit with introductory note

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

---

Gascorp (Plaxton) Limited  
Land South of Petunia Nurseries  
Plaxton Bridge Road  
Woodmansey  
Beverley  
Yorkshire  
HU17 0RT

### **Permit number**

**EPR/YP3309BX**

# Land south of Petunia Nurseries

## Permit number EPR/YP3309BX

### Introductory note

#### **This introductory note does not form a part of the permit**

The main features of the permit are as follows:

The Gascorp Anaerobic Digester (AD), sited on land to the south of Petunia Nurseries, is designed to treat potato waste via biological treatment and produce biomethane for export to the National Gas Grid. Feedstocks for the process comprise potato pulp and discarded whole potatoes from the adjacent food processing factory. The annual consumption of potato waste feedstock is approximately 80,000 tonnes.

This activity falls under:

- S5.4 A(1) (b) (i) – recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 100 tonnes per day involving biological treatment.

Heat and power for the site will be provided by a combined heat and power (CHP) gas engine rated at 1.216 MWth.

Potato pulp is produced in the adjacent factory and will either be pumped to the AD facility via a centrifuge located at the factory, then through sealed pipelines directly to the pre-tank, or the digesters. The pre-tank is located within an enclosed, purpose-built pasteurisation building within the AD installation boundary. The pre-tank is only used as a buffer when the potato factory needs to moderate flow, or when the consistency of the potato pulp is such that water is required to be added, otherwise the pulp is directed to the digester tanks. Discarded whole potatoes, which are unsuitable for food manufacture and are stored in the adjacent factory will be fed into an existing hopper where they are macerated. The hopper is located within the AD installation boundary. This material is then also pumped via sealed pipework to the pre-tank or digesters.

The pre-tank has a usable volume of 210 m<sup>3</sup> and each of the two digesters (designated in the application as the Fermenter and Post-Fermenter) have a volume of 3,528 m<sup>3</sup> with an additional 1,000 m<sup>3</sup> of gas storage above each digester. Safety features of the digesters include pressure relief valves that vent to the atmosphere in the event of biogas overpressure. There is a safety flare which will combust all excess gas produced in the event of mechanical breakdown.

Whole digestate will be removed from the digesters each time feeding occurs in order to maintain the mass balance in the tanks. Feed cycles are every 30 minutes; the removal of digestate follows the same trend. Whole digestate will then be pumped to an enclosed gas-tight digestate storage tank with a storage capacity of 280 m<sup>3</sup>. The digestate will conform to PAS110:2014 standard and will be used as a soil improver for agriculture following a pasteurisation stage at the plant.

The biogas collected in the Fermenter and Post Fermenter tanks will be stored in an integral inflatable gas holder. This gas-tight flexible roof comprises a double skin with inflatable layer to maintain gas pressure. Biogas will be subsequently processed to remove any sulphurous elements and upgraded with the addition of small quantities of propane to biomethane of suitable calorific value for injection into the National Gas Grid. There are three above-ground pressurised steel LPG tanks for the storage of propane in a separately fenced containment area. A compressor is used to increase gas pressure and odorant is added, strict quality standards apply before injection into the local gas supply pipework, owned by Northern Gas Networks.

Heat and power for the site will be provided by a CHP engine rated at 1.216 MWth, which will be fuelled either with biogas from the digesters (post-desulphurisation) or natural gas from the National Gas Grid. The CHP is sized to meet the heat demand of the site and is synchronised with the local electricity supply so any excess electricity produced may be exported. The electricity grid connection also supplies the site in the

event of any CHP shutdown and a 0.5 MWth standby gas boiler will be installed to meet any short-term heat requirement.

There are four direct emission points to air from the installation: the CHP plant exhaust (A1), auxiliary boiler (A5), the auxiliary flare (A15) and the biogas upgrading plant (A10). The facility has an emission point to sewer (S1) and surface water emission points (W1 and W2) discharge to an agricultural drainage ditch forming a tributary to the larger Western Drain and subsequently the Beverley & Barmston Drain; all of which are artificial watercourses. The site has an agreed Odour Management Plan (OMP) for the control of odours generated within the facility.

The site is located at land south of Petunia Nurseries, Plaxton Bridge Road, Woodmansey, Beverley approximately centred at National Grid Reference TA 06334 36315 and is located near to agricultural, commercial and industrial facilities. The nearest residential properties are located approximately 140m to the northeast and southeast and 200m to the west. The site is within 8.8km of three designated sites, the Humber Estuary (designated at a SAC, SPA and Ramsar) and within 1.65km of two non-statutory sites; Beverley Parks (LNR) and Figham Pastures.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/YP3309BX/A001	Duly made 11/11/2019	Application for an anaerobic digestion facility with combustion of biogas.
Additional information received	13/12/2019	Response to schedule 5 questions covering BAT operating techniques and amendments to the OMP.
Further Information	17/01/2020	Odour management plan reference OMP v2
Further Information	17/01/2020	Point Source Emission Plan v2
Further Information	21/01/2020	Environmental Management System Summary
Further Information	22/01/2020 and 29/01/2020	Further information for noise mitigation proposals
Permit determined (Billing ref: YP3309BX)	31/01/2020	Permit issued to Gascorp (Plaxton) Ltd

End of introductory note

# Permit

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

### Permit number

**EPR/YP3309BX**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**Gascorp (Plaxton) Limited** (“the operator”),

whose registered office is

**Regents Court**

**Princess Street**

**Hull**

**East Yorkshire**

**HU2 8BA**

company registration number 10582155

to operate an installation at

**Land south of Petunia Nurseries**

**Plaxton Bridge Road**

**Woodmansey**

**Beverley**

**Yorkshire**

**HU17 0RT**

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

<b>Name</b>	<b>Date</b>
<b>Simon Hunt</b>	<b>31/01/2020</b>

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 The activities shall be undertaken in accordance with best available techniques.
- 2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer’s recommendations.

### **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in red 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.
  - (c) the facility has sufficient free capacity to store and treat the waste.
- 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.
- 2.3.7 Waste pre-acceptance and acceptance procedures shall be undertaken in accordance with best available techniques.

## **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 activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 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, S3.2 and S3.3.
- 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, but including ammonia) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds.

### **3.3 Odour**

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

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3; and
  - (b) process monitoring specified in table S3.4.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 For New Medium Combustion Plant, the first monitoring measurements shall be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.

### **3.6 Pests**

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
- (a) only use approved products for pest control;
  - (b) treat pest infestations promptly;
  - (c) reject pest-infected incoming waste;



- (d) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (e) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **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.

4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation of each MCP.

### **4.2 Reporting**

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

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

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

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

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

- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.6 The operator shall keep records of non-waste materials leaving the site, including the type of material, the batch number, the date of export off-site and the tonnage exported on that date. These records shall be maintained for at least 2 years.

## 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 Following the detection of an issue listed in condition 4.3.1, the operator shall review and revise the management system and implement any changes as necessary to minimise the risk of re-occurrence of the issue.

4.3.4 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.

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

Where the operator is a registered company:

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

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

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

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.6 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.

4.3.7 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

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
AR1	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 two fermentation tanks followed by burning of biogas produced from the process.</p> <p>Only wastes from the neighbouring food processing facility operated by 4U Fresh Produce Limited are to be accepted.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
<b>Directly Associated Activity</b>			
AR2	Storage of waste pending recovery or disposal	R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	<p>From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site.</p> <p>Storage of pumped liquid waste in the pre-tank on an impermeable surface with sealed drainage and in an enclosed building.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
AR3	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 solid waste direct into feed hopper involving maceration.</p>

			<p>Heat treatment (pasteurisation) of waste in 4 tanks for the purpose of recovery.</p> <p>Biogas cleaning by biological scrubbing and physical treatment (carbon filtration – biogas upgrading plant).</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
AR4	Steam and electrical power supply	R1:Use principally as a fuel 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 1 combined heat and power (CHP) engine with a thermal input of 1.216 MWth</p> <p>Combustion of biogas or natural gas in auxiliary boiler with thermal input of 0.5MWth.</p>
AR5	Emergency 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 auxiliary flare required only during periods of breakdown or maintenance of the CHP engine, biogas upgrading plant.</p>
AR6	Gas upgrading	Upgrading of biogas to biomethane (including the removal of moisture and other substances such as carbon dioxide, hydrogen sulphide and Volatile Organic Compounds) for injection into the National Gas Grid.	From the receipt of biogas produced at the on-site anaerobic digestion process to injection into the National Gas Grid. This includes return of off-specification biogas for combustion to the on-site CHP engine, auxiliary boiler and/or emergency flare.
AR7	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, propane, ferric	From the receipt of raw materials to despatch for use within the facility.

		chloride, activated carbon, diesel.	
AR8	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of 2 digesters.  From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
AR9	Digestate storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of processed uncertified whole digestate produced from the on-site anaerobic digestion process to despatch for use off-site.  Storage of processed uncertified whole digestate in digestate storage tank.
AR10	Surface water collection and storage	Collection and storage of uncontaminated site surface water in storage tank(s).	From the collection of uncontaminated roof and site surface water to re-use within the facility or discharge to surface water.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	Sections 1.2, 1.4, 1.6 and 1.8 of the application document in response to section 3a – technical standards, Part B of the application form.	21/08/2019
Response to Schedule 5 Notice dated 29/11/2019	All sections	13/12/2019
Further Information	Odour Management Plan reference OMP v2	17/01/2020
Further Information	Point Source Emission Plan v2	17/01/2020
Further Information	Environmental Management System Summary - Gascorp	21/01/2020
Further Information	Noise attenuation information – Bio-accelerator (Email)	22/01/2020
Further Information	Noise attenuation information – CHP (Email)	29/01/2020

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP1	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 A10 during normal operation, having regard to the Environment Agency guidance, “Monitoring stack emissions: environmental permits” and to MCERTS standards. As a minimum, two separate monitoring campaigns in a year shall be	01/01/2021 or otherwise agreed in writing by the Environment Agency

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
	<p>completed (one monitoring survey six months following commissioning of the biogas upgrading plant).</p> <p>The pollutants to be monitored shall include:</p> <ul style="list-style-type: none"> <li>• total volatile organic compounds; and</li> <li>• hydrogen sulphide</li> </ul>	
IP2	<p>Following the completion of IP1, the operator shall undertake an emissions impact assessment of point source releases to air from A10, using the information obtained through the emissions monitoring. The emissions impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review.</p> <p>The emissions impact assessment shall, as a minimum, include:</p> <ul style="list-style-type: none"> <li>• reports showing details of the monitoring undertaken and the results obtained;</li> <li>• 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</li> <li>• a completed H1 assessment software tool</li> </ul> <p>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.</p>	One month following the completion of IP1.
IP3	<p>The Operator shall undertake a noise impact assessment in accordance with the procedures in BS 4142:2014+A1:2019, Methods for rating and assessing industrial and commercial sound. This shall include the identification and assessment of the impact of operational noise emissions upon surrounding sensitive receptors following the installation of the mitigation measures referenced under PO1, in order to verify the effectiveness of those measures as specified by the Operator as part of their application.</p> <p>An assessment report shall be submitted to the Environment Agency for approval which describes the assessment undertaken and provides interpretation of the results obtained. If the assessment indicates that the expected additional noise attenuation has not been achieved, leading to an adverse impact (or greater) at the sensitive receptors, the report shall include proposals for the further attenuation and/or management of noise, which as a minimum shall include the production of a Noise Management Plan. In this case the Operator shall also include a timescale, to be agreed with the Environment Agency, for the implementation of these further measures.</p>	30/04/2020

<b>Table S1.4 Pre-operational measures</b>	
<b>Reference</b>	<b>Pre-operational measures</b>
1	<p>At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the installation with waste, the operator shall ensure that a review of the design, method of construction and integrity of the proposed site secondary containment is carried out by a qualified structural engineer. The review shall compare the constructed secondary containment against the standards set out in section 7.9.1 of the Environment Agency <i>Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013)</i> and CIRIA C736 - <i>Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises</i> or other relevant industry standard.</p>

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
	<p>The review shall include:</p> <ul style="list-style-type: none"> <li>• physical condition of the secondary containment</li> <li>• the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure;</li> <li>• any work required to ensure compliance with the standards set out in CIRIA C736 or other relevant industry standard; and</li> <li>• a preventative maintenance and inspection regime</li> </ul> <p>A written report of the review shall be submitted to the Environment Agency detailing the review's findings and recommendations. Remedial action shall be taken to ensure that the secondary containment meets the standards set out in the technical guidance documents and implement the maintenance and inspection regime.</p> <p>No site operations shall commence or waste accepted at the facility unless the Environment Agency has given prior written permission under this condition.</p>
2	<p>At least 2 weeks (or any other date as agreed with the Environment Agency) prior to commencement of site operations, the operator shall submit a written copy of the final Site Environmental Management System (EMS) and make available for inspection all documents and procedures which form part of the site EMS.</p> <p>The EMS shall cover all activities at the installation and shall be in accordance with the <i>Environment Agency Guidance – How to develop a management system: environmental permits and BAT Reference Document for Waste Treatment</i> (the BREF). The EMS shall include the techniques the operator relies upon to manage the operation, accidents (including flooding), closure and decommissioning of the site. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of this permit.</p>
3	<p>Prior to the commencement of commissioning of the CHP plant and the bio accelerator unit (including the conveyor system), the Operator shall install noise mitigation measures to this plant / equipment, as proposed within their Noise Impact Assessment Report (ref. BTS Biogas September 2019, received October 2019) and their email(s) to the Environment Agency dated 22/01/2020 and 29/01/2020, and any additional measures they deem appropriate to mitigate potential noise impacts from the AD facility. Upon completion of the installation of these measures the Operator shall submit a short report to the Environment Agency summarising the nature of the work undertaken / mitigation measures installed.</p>



## Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 80,000 tonnes
Waste code	Description
<b>02</b>	<b>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>
<b>02 01</b>	<b>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>
02 01 01	sludges from washing and cleaning – vegetables, fruit and other crops
02 01 03	plant tissue waste
<b>02 03</b>	<b>wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation</b>
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing

## 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 [Point A1 on site plan in Schedule 7]	CHP engine stack (1.216 MWth) [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	107 mg/m <sup>3</sup>			BS EN 14791
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	No limit set	--	--	--
A5 [Point A5 on site plan in Schedule 7]	Auxiliary Boiler stack – fuelled on natural gas (0.5 MWth)	No parameter set	No limit set	--	--	--
A15 [Point A15 on site plan in schedule 7]	Emergency flare stack [note 2]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	150 mg/m <sup>3</sup>	Hourly average	[note 3]	BS EN 14792
		Carbon monoxide	50 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	10 mg/m <sup>3</sup>			BS EN 12619:2013
A10 [Point A10 on site plan in schedule 7]	Biogas upgrading plant CO <sub>2</sub> release point	VOCs	No limit set	--	Continuous	Leak detection and repair (LDAR) programme
A2 [Point A2 on site plan in schedule 7]	CHP Air Outlet	No parameter set	No limit set	--	--	--
A3 [Point A3 on site plan in schedule 7]	Gas Analyser Vent	No parameter set	No limit set	--	--	--
A4 [Point A4 on site plan in schedule 7]	Compressor Relief Valves	No parameter set	No limit set	--	--	--
A6 [Point A6 on site plan in schedule 7]	Propane Relief Valves	No parameter set	No limit set	--	--	--
A7 [Point A7 on site plan in schedule 7]	Gas Analyser Vent	No parameter set	No limit set	--	--	--

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A8 [Point A8 on site plan in schedule 7]	Pasteurization Relief Valve	No parameter set	No limit set	--	--	--
A9 [Point A9 on site plan in schedule 7]	Compressor Relief Valve	No parameter set	No limit set	--	--	--
A11 [Point A11 on site plan in schedule 7]	Compressor Relief Valve	No parameter set	No limit set	--	--	--
A12 [Point A12 on site plan in schedule 7]	Digester Pressure Relief Valve	No parameter set	No limit set	Recorded duration and frequency	Record of operational hours	--
A13 [Point A13 on site plan in schedule 7]	Digestate Tank Pressure Relief Valve	No parameter set	No limit set	Recorded duration and frequency	Record of operational hours	--
A14 [Point A14 on site plan in schedule 7]	Digester Pressure Relief Valve	No parameter set	No limit set	Recorded duration and frequency	Record of operational hours	--
Vents from tank(s)	Oil/Fuel Storage tank(s)	No parameter set	No limit set	--	--	--
<p>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).</p> <p>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).</p> <p>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). Record of operating hours to be submitted annually to the Environment Agency.</p>						

**Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 and W2 on site plan in schedule 7 emission Western Drain	Site surface water /water from bunded areas	No parameter set	No limit set	--	Weekly	Visual assessment – no visible oil or grease
		Total organic carbon (TOC) [Note 1]	60 mg/l	Spot sample or flow-proportional composite sample	Once every month	BS EN 1484
		Chemical oxygen demand (COD) [Note 1]	180 mg/l	Spot sample or flow-proportional composite sample	Once every month	In accordance with M18 – Monitoring of discharges to water and sewer
		Total nitrogen	25 mg/l	Spot sample or flow-proportional composite sample	Once every month	BS EN ISO 11905-1 or BS EN 12260
		Total phosphorus	2 mg/l	Spot sample or flow-proportional composite sample	Once every month	In accordance with M18 – Monitoring of discharges to water and sewer
		Total suspended solids	60 mg/l	Spot sample or flow-proportional composite sample	Once every month	BS EN 872

Note 1 – Either TOC or COD is monitored. TOC is the preferred option, because its monitoring does not rely on the use of very toxic compounds.

**Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements**

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7 emission to Yorkshire Water Beverley Sewage Treatment Works	Site surface water /water from bunded areas	No parameter set	No limit set	--	--	--

**Table S3.4 Process monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Digester feed (digestion process)	pH	As described in the site operating techniques	As described in the site operating techniques	Process monitoring to be recorded using SCADA system
	Alkalinity			
	Temperature			
	Hydraulic loading rate			
	Organic loading rate			
	Volatile fatty acids concentration			
	Ammonia			
	Digester liquid level			
	Digester foam level			
Biogas production	Biogas flow	Continuous	As described in the site operating techniques	Process monitoring to be recorded using SCADA system.  Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Methane	Continuous		
	CO <sub>2</sub>	Continuous		
	O <sub>2</sub>	Continuous		
	Pressure	Continuous		
	Hydrogen sulphide	Daily		
Digester operation	Agitation /mixing	Once a year	--	--
	Tank capacity and sediment assessment			
Pasteurisation building, Digesters and storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Carbon filtration system	Temperature	Daily	Temperature probe	Carbon filtration system shall be

<b>Table S3.4 Process monitoring requirements</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
(Biogas Upgrading Plant)	Moisture	Daily	None specified	regularly checked and maintained to ensure appropriate temperature and moisture content.
	Efficiency assessment	--	--	
	Gas stream flow	Continuous	--	Carbon filter(s) to be replaced when saturated in accordance with manufacturer's recommendations.
Biogas upgrading plant	VOCs including methane	In accordance with written management system	In accordance with written management system	Methane monitoring points as specified in the DSEAR risk assessment and leak detection and repair programme
Diffuse emissions from Gas storage membrane /biogas upgrading plant /digestate storage	VOCs including methane	Every 6 months	In accordance with written management system	Leak detection and repair (LDAR) programme
	Odour			
	Ammonia			
CHP engine stack	Total VOCs	As agreed in writing with the Environment Agency	BS EN 12619:2013	--
Site meteorological conditions	Wind speed, wind direction, temperature	Continuous	As specified in the site operating techniques	
Emergency flare	Operational hours	As required	Recording using a SCADA system	Date, time and duration of use of emergency flare shall be recorded.
Pressure relief valves	Biogas release	In accordance with manufacturer's recommendations	Daily visual inspection or remote monitoring	Date, time and duration of use of pressure relief events shall be recorded. Annual mass release shall be calculated. Pressure relief valves to be re-seated after release.
Digester(s) and storage tank(s)	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.

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air from CHP engines, emergency flare and biogas upgrading plant. Parameters as required by condition 3.5.1.	A1, A10 and A15	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1 and W2	Every 12 months	1 January
Process monitoring Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.4	Every 12 months	1 January

<b>Table S4.2 Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
Electricity generated	MWh
Biomethane generated	tonnes or m <sup>3</sup>
Whole digestate	tonnes

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

<b>Table S4.4 Reporting forms</b>		
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Air	Form air 1 or other form as agreed in writing by the Environment Agency	31/01/2020
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	31/01/2020

<b>Table S4.4 Reporting forms</b>		
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	31/01/2020
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	31/01/2020
Waste returns	E-waste Return Form or other form as agreed in writing by the Environment Agency	--



## 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	

<b>(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</b>	
<b>To be notified within 24 hours of detection</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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.

“accident management plan” means a plan that identifies risks and failures which can have an impact on the environment or have environmental consequences. The plan forms part of the management system. The plan must minimise the potential causes and consequences and identify clearly the roles, responsibilities and action to be taken to minimise the consequences of accidents. This includes measures to prevent and control fires on site, DSEAR assessment and clearly marked zones.

“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. This does include blood, feathers, uncooked butchers waste and any other animal waste that is not catering waste or former foodstuffs. This does not include faecal matter from animals (e.g. chicken litter or farmyard manure).

“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.

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

- a) *‘techniques’ includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;*
- b) *‘available techniques’ means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and the advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;*
- c) *‘best’ means most effective in achieving high general level of protection of the environment as a whole.*

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

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

“capacity” means the potential capacity and not historical or actual production levels or throughput. This means that the designed capacity is the maximum rate at which the site can operate. Biological treatment of waste usually takes place over more than one day, so the physical daily capacity can be calculated by dividing the maximum quantity of waste that could be subject to biological treatment at any one time by the minimum residence time. For in-vessel composting, the residence time for sanitisation should be calculated separately and then aggregated to the complete composting time.

“channelled emissions” means the emissions of pollutants into the environment through any kind of duct, pipe, stack, etc. This also includes emissions from open top biofilters.

“combined heat and power” (CHP) or Cogeneration means the simultaneous generation in one process of thermal energy and electrical or mechanical energy.

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

“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.

“generator” means any combustion plant which is used to generate electricity, excluding mobile, unless it is connected to the national grid.

“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.

“Leak detection and repair (LDAR) programme” means a structured approach to reduce fugitive emissions of organic compounds by detection and subsequent repair or replacement of leaking components. Currently, sniffing (described EN 15446) and optical gas imaging methods are available for the identification of leaks as set out in BAT 14 and section 6.6.2 of the Waste Treatment BAT Conclusions.

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

“pests” means Birds, Vermin and Insects.

“pollution” means emissions as a result of human activity which may-

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

“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.

“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.

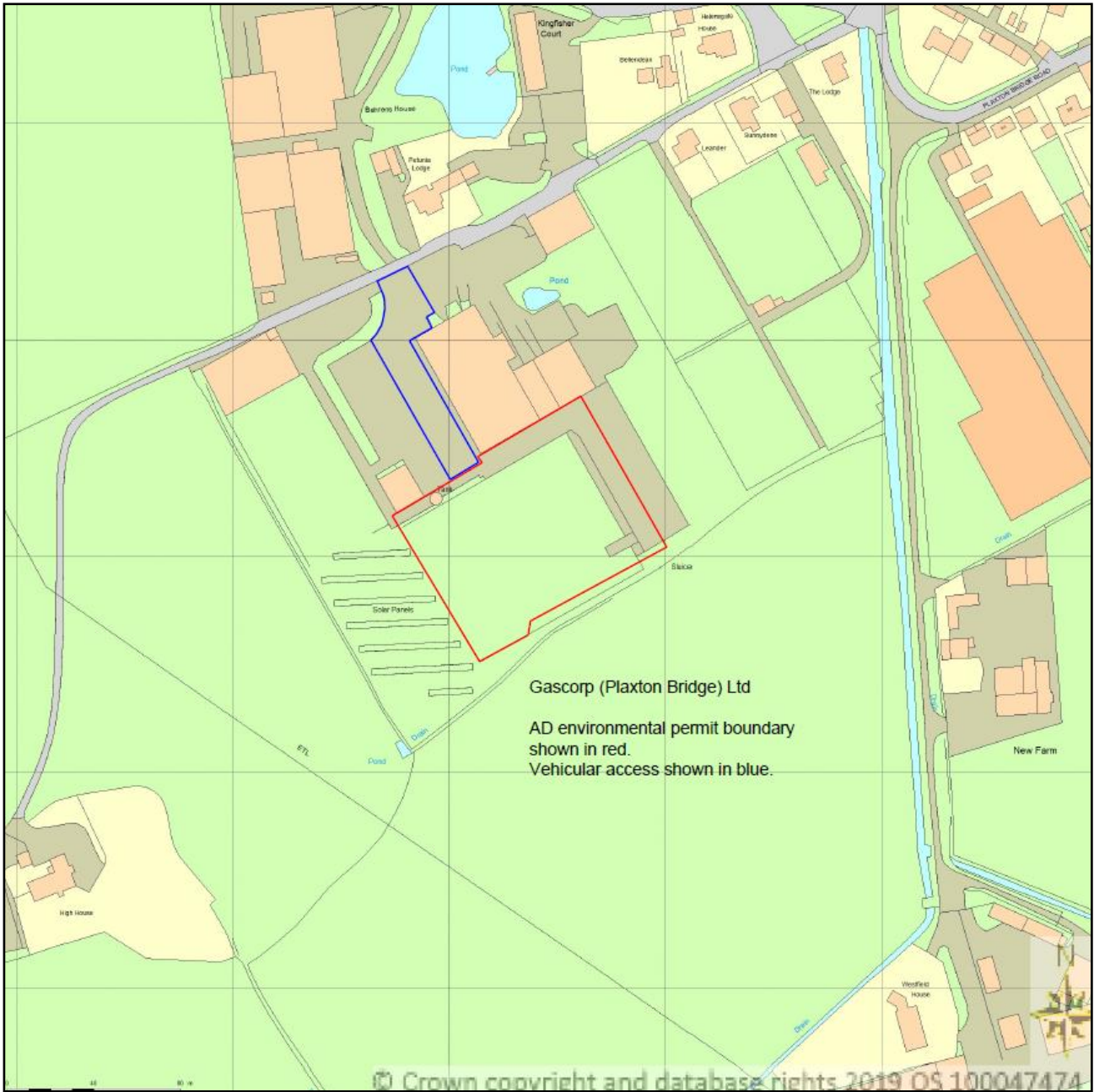
“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

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 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

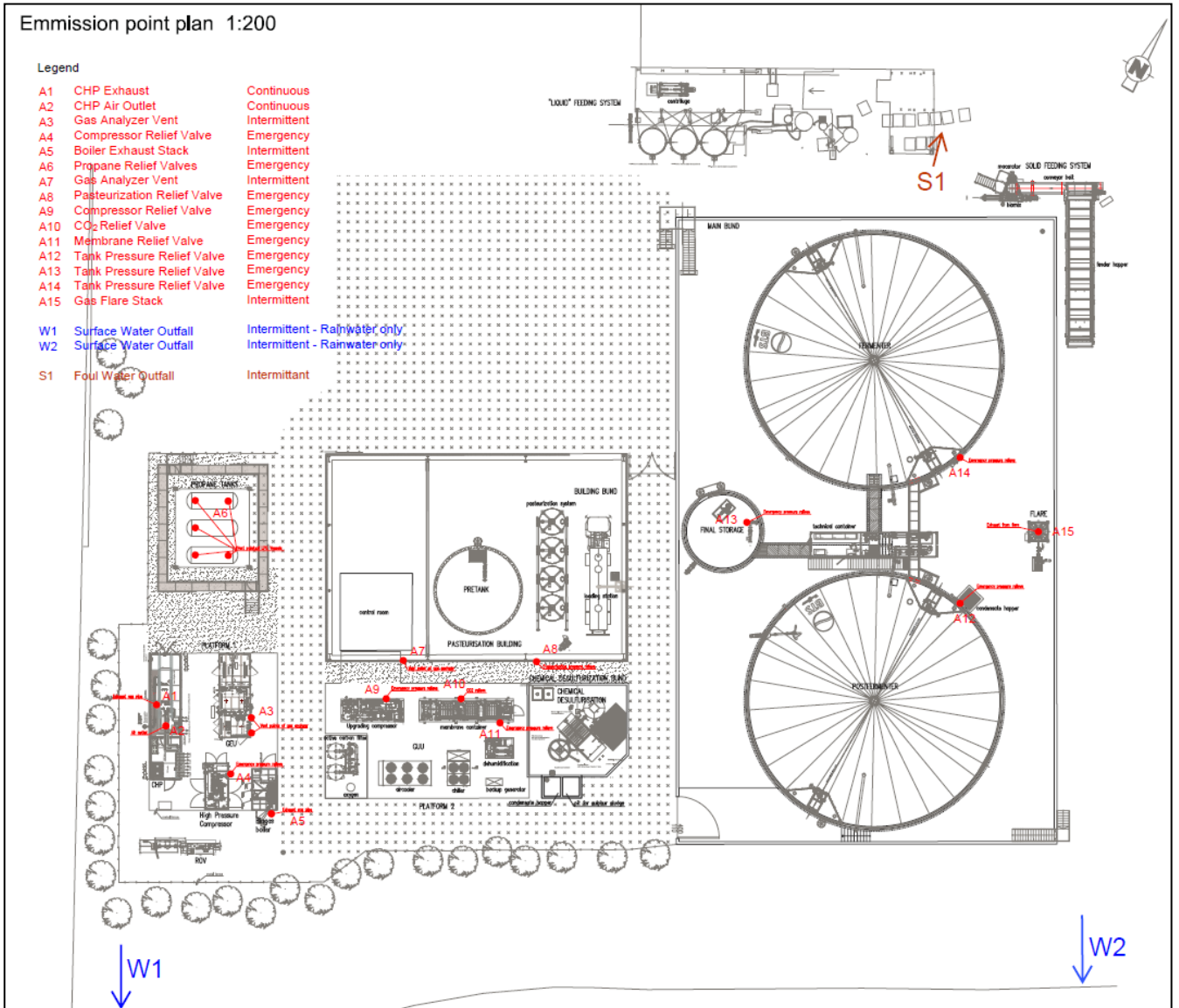


©Crown Copyright. All rights reserved. Environment Agency, 100026380, 2020.

# Emmission point plan 1:200

## Legend

- |     |                              |                               |
|-----|------------------------------|-------------------------------|
| A1  | CHP Exhaust                  | Continuous                    |
| A2  | CHP Air Outlet               | Continuous                    |
| A3  | Gas Analyzer Vent            | Intermittent                  |
| A4  | Compressor Relief Valve      | Emergency                     |
| A5  | Boiler Exhaust Stack         | Intermittent                  |
| A6  | Propane Relief Valves        | Emergency                     |
| A7  | Gas Analyzer Vent            | Intermittent                  |
| A8  | Pasteurization Relief Valve  | Emergency                     |
| A9  | Compressor Relief Valve      | Emergency                     |
| A10 | CO <sub>2</sub> Relief Valve | Emergency                     |
| A11 | Membrane Relief Valve        | Emergency                     |
| A12 | Tank Pressure Relief Valve   | Emergency                     |
| A13 | Tank Pressure Relief Valve   | Emergency                     |
| A14 | Tank Pressure Relief Valve   | Emergency                     |
| A15 | Gas Flare Stack              | Intermittent                  |
| W1  | Surface Water Outfall        | Intermittent - Rainwater only |
| W2  | Surface Water Outfall        | Intermittent - Rainwater only |
| S1  | Foul Water Outfall           | Intermittent                  |



END OF PERMIT

**Permit Number:** YP3309BX                      **Operator:** Gascorp (Plaxton) Ltd.

**Facility:** Land South of Petunia   **Form Number:** Air1 / 31/01/2020  
**Nurseries**

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

<b>Emission Point</b>	<b>Substance / Parameter</b>	<b>Emission Limit Value</b>	<b>Reference Period</b>	<b>Result [1]</b>	<b>Test Method [2]</b>	<b>Sample Date and Times [3]</b>	<b>Uncertainty [4]</b>
A1	Oxides of nitrogen (NO and NO2 expressed as NO2)	No limit set	1 hour period		BS EN 14792		
A1	Sulphur dioxide	No limit set	1 hour period		BS EN 14791		
A1	Carbon monoxide	No limit set	1 hour period		BS EN 15058		
A1	Total VOCs	No limit set	1 hour period		BS EN 12619:2013		
<b>Emergency flare</b>							
A15	Oxides of nitrogen (NO and NO2 expressed as NO2)	No limit set	1 hour period		BS EN 14792		
A15	Carbon monoxide	No limit set	1 hour period		BS EN 15058		
A15	Total VOCs	No limit set	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: YP3309BX Operator: Gascorp (Plaxton) Ltd.**

**Facility: Land South of Petunia Nurseries Form Number: Water1 / 31/01/2020**

**Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY**

<b>Emission Point</b>	<b>Substance / Parameter</b>	<b>Emission Limit Value</b>	<b>Reference Period</b>	<b>Result [1]</b>	<b>Test Method [2]</b>	<b>Sample Date and Times [3]</b>	<b>Uncertainty [4]</b>
W2 and W1?	Total suspended solids	20 mg/l	For 95% of all measured values of periodic samples taken over one month		BS EN 872		
W2	pH	6-10	Continuous		BS6068-2.50		
W2	BOD	25 mg/l	Periodic		BS EN 1899-1 (1998)		

[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:** YP3309BX                      **Operator:** Gascorp (Plaxton) Ltd.  
**Facility:** Land South of Petunia Nurseries      **Form Number:** WaterUsage1 / 31/01/2020

**Reporting of Water Usage for the year**

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

Operator's comments:

Signed .....  
 (authorised to sign as representative of Operator)

Date.....

**Permit Number: YP3309BX Operator: Gascorp (Plaxton) Ltd.**

**Facility: Land South of Petunia Nurseries Form Number: Energy1 / 31/01/2020**

**Reporting of Energy Usage for the year**

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Natural Gas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
Biogas	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:** YP3309BX Land South of  
**Facility:** Petunia Nurseries

**Operator:** Gascorp (Plaxton) Ltd.  
**Form Number:** Performance1 / 31/01/2020

**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	%
Auxiliary boiler usage	hours
Emergency flare operation	hours
Electricity exported	MWh
Biomethane exported	tonnes or m3

Operator's comments:

Signed .....

Date.....

(Authorised to sign as representative of Operator)