

Permitting decisions

Bespoke permit

We have decided to grant the permit for Land South of Petunia Nurseries AD Plant operated by Gascorp (Plaxton) Limited.

The permit number is [EPR/YP3309BX/A001](#).

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#).

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

Key issues of the decision

The Gascorp Anaerobic Digester is designed to manufacture 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. Potato pulp is produced in the factory and pumped via a centrifuge through sealed pipelines directly to the pre-tank, which is located within an enclosed purpose-built Pasteurisation Building. Whole potatoes, which are unsuitable for food manufacture and are stored in the adjacent factory, are also fed manually into the existing hopper where they are macerated. This material is then also pumped via sealed pipework to the pre-tank or digesters.

The pre-tank has a usable volume of 210 m³ and each of the two digesters (designated the Fermenter and Post-Fermenter) have a fermentation volume of 3,528 m³ with an additional 1,000 m³ of gas storage above. Safety features of the digesters include pressure relief valves that vent to the atmosphere in the event of biogas overpressure but during normal operations no biogas will be vented or flared. All the biogas produced will be upgraded to biomethane for injection into the natural gas grid. There is a safety flare, sized to burn up to 1,300 m³/hour, which will combust all excess gas produced in the event of mechanical breakdown.

Digestate is removed from the digesters each time feeding occurs in order to maintain the mass balance within the tanks. Feed cycles are every 30 minutes; the removal of digestate follows the same trend.

Digestate is then piped to an enclosed gas tight digestate storage tank with a storage capacity of 280 m³ and removed from site at regular intervals by road tanker. 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. Any digestate not conforming to PAS110:2014 is removed from site by a waste carrier to a permitted waste disposal site.

The biogas collected in the Fermenter and Post-Fermenter tanks is stored in an integral inflatable gas holder. This gas-tight flexible roof comprises a double skin with inflatable layer to maintain gas pressure. Biogas is 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 gas grid. Odorant is added to the biomethane as a safety measure. The biomethane has to meet strict quality standards before being injected into the 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 an odorant is added before injection into the local gas supply pipework, owned by Northern Gas Networks.

Heat and power for the site are provided by a combined heat and power (CHP) engine rated at 1.216 MWth, which is fuelled either with biogas from the digesters (post-desulphurisation) or natural gas from the 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 can also supply the site in the event of any CHP shutdown and a 0.5 MWth standby gas boiler is installed to meet any short-term heat requirement.

Air emissions assessment

An assessment of the impact on air quality was required as the facility will release emissions to air from the CHP engine. The back-up boiler and emergency flare were excluded from the assessment due to their infrequent use.

The Environment Agency H1 impact assessment was carried out for nitrogen dioxide (NO₂), sulphur dioxide (SO₂) and carbon monoxide (CO) emissions for the CHP unit. The assessment predicted that emissions of SO₂ and CO at the surrounding human sensitive receptors were screened out as insignificant, as process contributions (PCs) were either less than 1% of the long term environmental standard (ES) and less than 10% of the short term ES; or the predicted environmental concentrations (PEC) calculated from the process contributions was less than 70% of the ES. As process contributions are less than the criteria indicated, they were screened out from further assessment.

The assessment predicted that emissions of NO₂ were greater than 1% of the long term ES, therefore the applicant provided further impact assessment using a simple air dispersion software (SCREEN3). This assessment confirmed that NO₂ emissions were also insignificant.

Environment Agency audit

We carried out our own screening check of NO₂ using AQMAU Screening Tool version 5.2. Predicted emissions at the surrounding human sensitive receptors indicated the environmental risk was insignificant. Therefore, we consider that emissions of nitrogen oxides will not impact the human receptors near the site.

The H1 assessment undertaken by the applicant did not include the biogas upgrading unit (BUP) and therefore an assessment has not been carried out for (volatile organic carbons) VOCs or hydrogen sulphide. We therefore consider it necessary to include Improvement Condition 1 and 2 (IC1 and IC2). IC1 requires the operator to undertake a monitoring survey following the commencement of operations at the BUP to obtain actual (real-time) operational monitoring data from the plant. Improvement Condition 2 (IC2) requires the operator to undertake an air emissions impact assessment (using the H1 software tool) with the results of the monitoring survey and compare the long and short term impacts of pollutants in accordance with the "*Environment Agency Guidance – air emissions risk assessment for your environmental permit*". Following the review of results from the monitoring survey and impact assessment, the Environment Agency shall consider whether or not emission limits are appropriate at emission point A10. We have used this approach for biowaste treatment facilities proposing to install biogas upgrading plants across England.

Emission limits

The CHP engine has a rated thermal input of 1.216 MWth and will be affected by the Medium Combustion Plant Directive (MCPD). Emissions will comply with the MCPD limits as set in Part 2 of Annex II of the Directive. We have specified that monitoring should be carried out for the parameters listed in Schedule 3 in the permit, using the methods and to the frequencies in those tables. These monitoring requirements have been imposed in order to demonstrate compliance with emission limit values (where specified).

Odour

As the applicant (now the operator) proposes to accept and treat potentially odorous wastes, an odour management plan (OMP) was required to be submitted as part of the application to manage operations such that odour emissions are not causing pollution at the surrounding sensitive receptors. An OMP has been provided and referenced as OMPv2. The site is located near to agricultural, commercial and industrial facilities. The nearest residential properties are located approximately 140 m to the northeast and south-east and 200 m to the west.

Potential odour source inventory includes:

- Waste feedstock and digestate in the pre-tank, hopper and digester tanks
- Waste feedstock in pasteuriser
- Digestate in digestate storage tank
- Pressure relief valves
- Gas storage tank
- Flare
- Spillages
- Gas odorant

Measures taken to manage odour and mitigating factors

Whole potatoes will not emit any odour but once macerated and stored in the pre-tank, they will emit some odours as decomposition occurs, as will the potato pulp. Both feedstock are pumped via enclosed pipework which will limit any odour release. The pre-tank is inside a purpose built building which will limit any odour release. Normal digester operation will not result in any odorous emissions; the process is a closed system with limited potential for releases. Ingress of air is detrimental and can be hazardous therefore safeguards will be equally effective in preventing fugitive releases. Overpressure of the fermenters / gas holder could be perceived as a possible source of odour, however it is anticipated that this will not occur during normal operation. Mitigation for overpressure include a flare stack that will manage gas levels in the event of an increase in pressure, during periods of plant maintenance and also in the event that grid injection cannot be achieved. In the instance that the valves do operate, it can be considered that any gas to atmosphere will rise as its main component is methane which is less dense than air.

Odorant is added to the biomethane within the National Grid Network NGN kiosk. This has a very potent smell and is added to gas as a safety measure; to enable detection of even the smallest of leaks. Current dosing requirements for gas in the network are 6-10 mg/m³ giving an example of its potency. As part of the Gas Safety Management Regulations 1996, a spillage kit consisting of bleach and absorbents must be held in the location to enable neutralisation and containment of any odorant spillage.

The plan summarises:

- The site meets BAT requirements for the pre-acceptance of waste ensuring waste types arriving from the next door factory are suitable for the process and will not lead to odour issues.
- Under normal operations, the digestate will be kept in air-tight tanks and pipes throughout the digestion process, removing the opportunity for gas to be released to air.
- Olfactory monitoring will be undertaken around the site boundary at specified locations as detailed in Section 5.1 of the OMP. If an issue is detected, procedures are in place for investigation and remediation.
- The OMP provides measures for complaints management (see Section 6 of the OMP).

- Odorous compounds and gases within the biogas are removed in the gas upgrading unit or destroyed during burning in the CHP and/or emergency flare.
- All plant are inspected daily and if necessary serviced at least weekly.
- If a pressure relief valve is required to be opened in an emergency situation, the operator will cease waste acceptance while the issue is resolved.
- Spill remediation procedures are in place to prevent and clean up spills if necessary.
- A Supervisory Control and Data Acquisition (SCADA) system controls and monitors processes and a failure of equipment will result in alarm generation and management response.
- The site has portable monitors to periodically measure levels of hydrogen sulphide and methane at a number of locations around the site.
- Contingency actions are in place for any site incident and/or emergencies.

Environment Agency assessment

Overall, we consider that the applicant has proposed appropriate odour management measures to minimise any impact on nearby sensitive receptors. In the event that odour emissions are causing pollution, the permit conditions require the operator to comply with the measures specified in the OMP at all times. The odour conditions in the permit are likely to be sufficient to ensure that odour emissions from the AD plant are unlikely to cause annoyance. Process monitoring conditions including daily olfactory tests at the site boundary will also ensure that emissions of odour are not causing annoyance.

We have reviewed and approved the OMP in its current format with the additional information submitted during the determination. We consider that the OMP complies with the requirements of our [H4 odour guidance](#). We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the operator.

Based upon the information in the Application, we are satisfied that appropriate measures will be in place to prevent or where that is not practicable to minimise odour and to prevent pollution from odour.

Fugitive emissions to air, land and water.

The IED specifies that plants must be able to demonstrate that they are designed in such a way as to prevent the unauthorised and accidental release of polluting substances into soil, surface water and groundwater. In addition, storage requirements for waste and for contaminated water must be arranged.

Activities on site will be operated in accordance with the site's management systems. This will include regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions.

Good housekeeping practices will be applied, such as minimising any dust generating activities on very dry or windy days; regular inspection and cleaning /sweeping of all paved areas on site and/or export of digestate from the site.

The waste treatment operations will benefit from a number of process control features and prevent the development of abnormal operating conditions. Operations will be controlled and monitored using the Supervisory Control and Data Acquisition (SCADA) system which creates documentation that can be accessed in remote locations. The system will provide a range of control and monitoring functions that automate and monitor actions throughout the plant. These procedures are designed to ensure the integrity of the plant throughout the life of the facility.

The operator reports that all areas within the waste reception and treatment areas will benefit from an impermeable surface which will prevent the release of potentially polluting liquids to surface water and groundwater. The AD tanks are constructed from robust steel, which are located on an engineered concrete base with surrounding side walls. The construction of the tanks will be supervised and quality assured. A Hazard and Operability (HAZOP) study and Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) assessment has been carried out for the project and includes details of the warning systems, escape facilities, emergency procedures and training requirements.

Secondary containment will be provided for all tanks containing liquids whose spillage could be harmful to the environment. The proposed site secondary containment is designed to hold a minimum of 110% of the capacity of the largest tank or 25% of total tank volume, whichever is the greater.

Containers used to store chemical reagents will be stored above a spill tray in dedicated, engineered bunds. Above-ground pipe runs will be fitted with cut-off valves so that they can be isolated and repaired in the event of a leak. The site infrastructure and plant will be inspected regularly and maintained as necessary to ensure it retains its integrity.

The applicant has provided a commissioning plan. A commissioning report will be provided on completion of construction to confirm that the construction and integrity of the site secondary containment is fit for purpose and in accordance with industry standards. The secondary containment has been constructed and designed to reduce the risks of accidents and their consequences. We have set pre-operational condition 1 (IP1) which requires the operator to review the effectiveness of the secondary containment and any additional procedures required following commissioning.

Overall, the Environment Agency considers that the applicant has proposed appropriate measures to minimise any impact of fugitive emissions on nearby sensitive receptors. The permit conditions (3.2.1 to 3.2.3) are sufficient to ensure that emissions of substances not controlled by emission limits are unlikely cause pollution. The operator is required to implement mitigation measures in line with an approved emissions management plan in the event activities on site are causing pollution.

Based upon the information provided in the Application, we are satisfied that appropriate measures are in place to prevent fugitive emissions to air, land and water.

Environmental Management System

Gascorp have provided a summary of their internal Environmental Management System (EMS). The management system includes a commitment to legal compliance and continuous improvement and includes targets to monitor improvement. The EMS also covers management of process change, purchasing, capital approval and record keeping. As part of the EMS procedures, equipment will be serviced and maintained in accordance with the manufacturer's recommendations. Site infrastructure will be inspected in accordance with a written programme and will be maintained as necessary. Maintenance records will be kept updated.

We have set pre-operational improvement condition 2 (IP2) to ensure the operator provides a written copy of the final site EMS, including all documents and procedures which form part of the site EMS and make this available for inspection.

The Operator will develop a site Closure and Decommissioning Programme outlining the measures that will be carried out in the event of site closure to ensure that the necessary measures have been taken –

- (a) to **avoid a pollution risk** resulting from the operation of the regulated facility; and
- (b) to return the site of the regulated facility to a **satisfactory state**, having regard to the state of the site before the facility was put into operation.

Environmental management procedures will be regularly audited to cover legal compliance (both environmental and health and safety), environmental improvements and systems compliance. In addition, site performance will be assessed. This will be achieved by:

- Establishing compliance with legal commitments, e.g. Environmental Permit and Planning Permission;
- Establishing compliance with relevant legislation;
- Reviewing Environmental Management Programmes; and
- Confirming commitment to continual improvements.

The technically competent manager (TCM) will be responsible for ensuring compliance with the environmental management procedures and all relevant legislative requirements. The operator confirms that the site EMS documentation will be in place and be made available for inspection prior to the commencement of site commissioning.

We are satisfied that appropriate management systems and management structures will be in place for this Installation, and that sufficient resources will be available to the operator to ensure compliance with all the permit conditions.

Commissioning

The proposed Installation will undergo a period of commissioning before becoming fully operational. The IED and the conditions set out in the permit cover activities at the Installation once waste feedstock is first received on site. At the commissioning stage, operators are required to demonstrate that the plant is working effectively and that appropriate measures are in place to protect the environment and human health during this period (prior to the commencement of site operations).

The applicant provided a commissioning plan which included the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the measures to be taken to protect the environment and report to us in the event that actual emissions exceed expected emissions.

Noise Assessment

The application contained a noise impact assessment (NIA) which identified local noise-sensitive receptors, sources of noise at the Installation and noise attenuation measures. To predict the impact at the nearest noise sensitive properties, a noise model has been produced in SoundPLAN, using the environmental noise propagation model ISO 9613-2:1996. This involved the calculation of resultant impact using noise emissions from externally fixed plant equipment which could likely affect the nearest noise sensitive receptor/residential dwelling. Measurements were taken of the prevailing ambient noise levels to produce a baseline noise survey and an assessment was carried out in accordance with BS 4142:2014 to compare the predicted plant rating noise levels with the established background levels. The results indicated that in an unmitigated scenario, the predicted noise level is above the measured background noise level at two of the closest receptor locations. Each noise source was then modelled in order to determine the greatest impact at the nearest receptors. The bio-accelerator (macerator), CHP unit and gas pre-treatment system and upgrading unit had the greatest impact on sensitive receptors.

The applicant's assessment concluded that the predicted/calculated night-time noise levels would exceed the existing background sound levels without additional mitigation measures in place.

There are a number of operational BAT practices that have been recommended in the NIA and will be utilised to ensure noise emissions are minimised and these good operational site measures will be implemented. In line with the assessment criteria, noise sources resulting in significant impacts (i.e. +10 dB above background) will be mitigated. In addition, sources resulting in an adverse impact (i.e. +5 dB above background) will be mitigated and minimised.

Mitigation measures such as acoustic screening have been recommended to reduce the impact of noise emissions from the bio-accelerator. However the revised BS4142 assessment with the bio-accelerator housed within an acoustic enclosure whilst achieving a 20dB reduction concluded that further mitigation is required. Further details on mitigation proposals were subsequently provided and have been included in the operating techniques table.

With regard to the CHP, acoustic splitter attenuators were recommended which can be fitted onto the CHP inlets / outlets, which will provide a 10 dB reduction from this unit. However noise remains at a level where complaints would be likely, and as such further mitigation is required. Further details on mitigation proposals were subsequently provided and have been included in the operating techniques table.

Given that the gas pre-treatment system and upgrading unit emit the same level of noise, it is necessary to reduce noise from both units in order for a material reduction in noise level at receptors is to be achieved. The noise control manufacturer has specified an acoustic enclosure that can be fitted around both units. The revised BS4142 assessment including the acoustic enclosure will reduce noise from each unit by 20 dB and would reduce predicted noise levels to below 5 dB above background at the nearest noise sensitive receptors. Therefore the level of impact is considered to be below that of 'adverse' in terms of BS 4142 for the gas pre-treatment system and upgrading unit.

We conducted an audit on the applicant's noise impact assessment and we agree with the assumptions and conclusion – we consider that noise mitigation measures will be necessary to ensure that the operations from the site do not have an adverse impact on sensitive receptors.

We have included improvement condition 3 (see Table S1.3 and S1.4 in the permit) which requires the operator to install noise mitigation measures to the bio-accelerator (including conveyor) and CHP unit as proposed within their Noise Impact Assessment Report (ref. BTS Biogas September 2019, received October 2019) and 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 is required to submit a short report summarising the nature of the work undertaken / mitigation measures installed.

Improvement condition 3 requires the Operator to undertake a noise impact assessment that includes identification and assessment of the impact of operational noise emissions on the surrounding sensitive receptors. Following the installation of the mitigation measures verify to the effectiveness of those measures as specified by the Operator as part of their application.

An assessment report shall also 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.

Based upon the information in the application, we are satisfied that appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration and to prevent pollution from noise and vibration outside the site.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made. The decision was taken in accordance with our guidance on confidentiality.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Consultation	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> Director of Public Health (DPH, East Riding) Public Health England (PHE) Health and Safety Executive (HSE) Local Authority Environmental Health. (LAEH, East Riding) Local planning authority (LPA, East Riding) National Grid (NG) Natural England (Sent for information only) (NE) Food Standards Agency (FSA) <p>No comments were received from DPH, HSE, LAEH, LPA, NG, NE or FSA</p> <p>The comment from PHE and our response is summarised in the consultation section.</p>
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	<p>We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on and permits.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
The site	

Aspect considered	Decision
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. The nearest designated site is the River Humber which is around 8.8 km from the proposed AD plant and this feature has three special protection designations (Humber Estuary SAC, Humber Estuary SPA and Humber Estuary RAMSAR). Given the distance and the proposed emissions from the activity the potential for pollution from the site is estimated to be low and it is considered that there will be no impact on these protected sites. The Beverley Parks Local Nature Reserve is situated approximately 1.5 km west of the proposed AD plant and the nearest area designated as a Local Wildlife site is Figham Pastures, 1000m to the north. Neither of these sites are considered at risk. There is a locally designated protected habitat site on the northern side of Plaxton Bridge Road. This is around 145m from the boundary of the site for the proposed AD plant. Uncontaminated surface water runoff and surface water from the bunded areas is pumped to the surface water ditch via an interceptor from and is tested prior to discharge. Table S3.2 Point source emissions to water include emission limits and monitoring requirements.</p> <p>Activities on site are carried out within sealed tanks or pipes. Pipe runs are fitted with cut-off valves so that they can be isolated in the event of a leak. All chemicals on site are stored in appropriate containers within bunds. There is little potential for migration of contaminants into soils or surface water.</p> <p>Emissions to air from the site have been assessed and have been shown to be within statutory air quality limits. Due to the enclosed nature of the process and the waste types to be treated the site will not generate dust or litter or attract vermin, which might impact on protected habitats.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We consulted Natural England on the application for information only. The decision was taken in accordance with our guidance on habitats regulations assessments.</p>
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p>

Aspect considered	Decision
	<p>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.</p> <p>The applicant did not provide a separate bioaerosol risk assessment but has covered bioaerosol emissions within qualitative risk assessment. Given the potato pulp is produced in the factory and pumped via a centrifuge through sealed pipelines directly to the pre-tank, which is located within an enclosed, purpose-built Pasteurisation Building which is then pumped directly to the digesters and where there is no external or internal storage it was considered that the risk from bioaerosols from this activity was very low. However, the feed hopper, into which the factory operatives place whole (rejected) potatoes from the factory, is an open vessel and is not located within a building. However, there is no storage of whole potatoes on site. Containers are brought to the site and immediately placed into the feed hopper. The containers are then cleaned and stored in the pasteurisation building.</p>
Operating techniques	
Best Available Techniques (BAT)	<p>The Operator has provided a BAT report that comprises a review of the proposed operation, activities, infrastructure and management systems of the site, with reference to the requirements of indicative Best Available Techniques (BAT). The relevant BAT conclusions are published in the EU Commission Implementing Decision 2018/1147 and explained in the <i>Environment Agency's How to Comply with your environmental permit</i>. Additional guidance for: Anaerobic Digestion.</p>
General operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Operating techniques for emissions that screen out as insignificant	<p>Emissions of nitrogen dioxide, sulphur dioxide, carbon monoxide have been screened out as insignificant, and so we agree that the applicant's proposed techniques are BAT for the installation.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory.</p>
Permit conditions	
Raw materials	<p>We have specified limits and controls on the use of fuels as required by the Sulphur Content of Liquid Fuels (England and Wales) Regulations 2007 and 2014 (Amendment).</p>
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p>

Aspect considered	Decision
	<p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> • they are suitable for the proposed activities • the proposed infrastructure is appropriate • the environmental risk assessment is acceptable. <p>We made these decisions with respect to waste types in accordance with our permit templates for anaerobic digestion and our Framework Guidance Note, <i>Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment July 2013</i>.</p>
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose a pre-operational condition which requires the operator to review the effectiveness of the secondary containment and any additional procedures required following commissioning. See key issues section.</p>
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme (IP1 and IP2).</p> <p>IP1 and 2 have been imposed to ensure that assumptions made around emissions from the gas upgrading plant are corroborated by data collection. See Key Issues section.</p> <p>IP3 has been imposed to ensure mitigation measures proposed by the NIA are provided and are sufficient to reduce noise to acceptable levels for the bio-accelerator and the CHP unit. See Key Issues Section</p>
Emission limits	<p>We consider that emission limits are required in the permit.</p> <p>ELVs have been set for the following substances.</p> <p><u>CHP engine (A1)</u></p> <p>Oxides of nitrogen – 500 mg/m³</p> <p>Sulphur dioxide – 107 mg/m³</p> <p>Carbon Monoxide – 1,400 mg/m³</p> <p>Total VOCs – no limit set</p> <p><u>Emergency flare (A15)</u></p> <p>Oxides of nitrogen – 150 mg/m³</p> <p>Sulphur dioxide – 50 mg/m³</p> <p>Total VOCs – 10 mg/m³</p>
Surface Water Management	<p>Surface water drainage - The site has been split into two areas, tank containment and the processing area. The tank containment area is designed so that the surface water within the bund falls to a sump where it can be pumped (manual operation) to the foul sewer or the surface water land drain, depending on the nature of the water. Prior to the discharge of water contained within the bund, an analysis will be carried out on the material to determine if it is suitable to be discharged to the land drain at the consented</p>

Aspect considered	Decision
	<p>discharge points.</p> <p>The operator provided no limits for the decision whether to send to sewer or surface water ditch and therefore we have included surface water discharge limits, permit table S3.2b.</p> <p>The processing area is constructed so that all surface water from hard surfaces is transported via the drainage system through a three-stage separator before being stored in two attenuation tanks, prior to being discharged to the land drain via a pumping station. Again this is tested prior to discharge. Uncontaminated surface water from roofs etc. is also collected and stored in the same attenuation tanks prior to discharge to ditch. This surface water is also analysed before being pumped to the ditch. It is not a continuous process.</p>
Monitoring	<p>We consider that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>These monitoring requirements have been imposed in order to demonstrate compliance with the conditions of the permit requiring the management of emissions to air.</p> <p>We made these decisions in accordance with the Waste Treatment BREF and BAT Conclusions and our guidance on Medium Combustion Plant and LFTGN 05: Guidance for monitoring enclosed landfill gas flares.</p> <p>Based on the information in the application, we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>
Reporting	<p>We have specified reporting in the permit.</p> <p>Reporting will be required annually in line with the annual emissions monitoring, ensuring the operator is complying with the limits in their permit. Considering that the majority of the biogas generated at the facility is sent to the National Gas Grid the site should not produce a high volume of air emissions. Annual reporting and monitoring is therefore sufficient. We made these decisions in accordance with the Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013).</p>
Operator competence	
Management system	<p>There is no known reason to consider that the operator will not have the management system to enable them to comply with the permit conditions.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Technical competence	<p>Technical competence is required for activities permitted.</p> <p>The operator is a member of an agreed scheme.</p> <p>We are satisfied that the operator is technically competent.</p>
Relevant convictions	<p>The Case Management System has been checked to ensure that all relevant convictions have been declared.</p>

Aspect considered	Decision
	No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.</p>

Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from
Public Health England (PHE)
Brief summary of issues raised
<p>PHE recommended that any permissions granted to the applicant should include conditions to control point source and fugitive emissions.</p> <p>PHE stated that they have no significant concerns regarding risk to health of the local population from this proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice. This is based solely on the information contained in the application provided.</p>
Summary of actions taken or show how this has been covered
<p>Direct emissions to air and fugitive emissions from waste handling have been considered in the determination of this permit application and have associated conditions within the permit. The applicant has proposed operating techniques in line with best available techniques ensuring sufficient controls are in place.</p> <p>All relevant organisations in line with our process and ways of working agreements have been consulted during this determination.</p>

No further consultation response was received from the other organisations and members of the Public.