

## Permitting Decisions - Variation

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We have decided to grant the variation for Bore Hill Farm Biodigester operated by Malaby Biogas Limited.

The variation number is EPR/AB3036RT/V005.

The variation authorises the following:

- increase in annual throughput from 28,000 tonnes to 40,000 tonnes.
- storage of undamaged, packaged, palletised and wrapped food waste in a covered container on the external yard area in front of the Reception Hall (up to 50 tonnes at any one time).
- installation of a modularised green gas fuel (GGF) production plant to provide upgraded biogas (biomethane) and carbon dioxide capture
- installation of a digestate treatment activity;
- extension of the installation boundary

The current bespoke waste operation permit authorises the treatment of up to 28,000 tonnes per annum of biodegradable food wastes from source separated commercial and industrial sources, including Category 3 Animal By-Product (ABP) wastes such as catering wastes, blood and animal flesh and Category 2 ABP waste (paunch contents only) as well as manures and slurries.

Subject to waste pre-acceptance procedures, solid and liquid waste is accepted over the weighbridge. Solid waste is deposited in the reception hall. The fast-acting roller shutter doors are only open to allow vehicles to enter and leave the building. Packaged food waste is loaded from its reception bay into the de-packaging plant within the reception hall; the resulting residual waste is stored in the reception hall pending removal off-site for recovery (energy from waste). Loose food waste is loaded from its reception bay into a hopper within the reception building. The solid waste streams are macerated and mixed with liquid waste as required and pumped into the feedstock buffer tank (300 m<sup>3</sup>) which is within the secondary containment area.

Liquid waste deliveries are dispatched via a sealed and pumped direct pipe connection at the liquid waste dispatch point, which is on the external concrete apron, and is fed directly into the feedstock buffer tank.

The prepared feedstock is pumped from the feedstock buffer tank into one of two primary digester tanks, each with a working capacity of 1,420 m<sup>3</sup>. These digester tanks are gas mixed. The average hydraulic retention time in the digesters is 30 days. Digestate is then screened via a 10mm screen before entering the

pasteurisation unit which treats the digestate at least 70°C for one hour. The resulting pasteurised digestate is then stored in the digestate storage tank which has a working capacity of 1,420 m<sup>3</sup>. Biogas is collected in the gas holders above the digesters and the digestate storage tank.

Digestate is taken off-site in tankers for use as an agricultural fertiliser which is managed under contract. Biogas is burnt in the two Combined Heat and Power engines (CHP) engines to produce electricity and heat which are both used in the anaerobic digestion plant. There are two back-up boilers which are used to provide additional heat if required. There is an emergency flare for use during abnormal or emergency operating conditions only. Any electricity produced which is in excess of the anaerobic digestion plant requirements is exported to the National Grid. There is also a generator used for site operations in emergency events.

This variation includes the installation of a modularised green gas fuel (GGF) production plant to provide additional processing capacity to support CHP utilisation of biogas from the plant. The GGF system will initially act as a back-up system for the two CHPs and boilers and become the preferred route to the use of biogas instead of the emergency flare. It will also optimise biomethane production in parallel with electrical generation from the biogas produced. The biomethane will be dried and compressed using a 3-stage hydraulic compression system before being stored in compressed biomethane storage modules before being dispensed into vehicles for removal off site. Carbon dioxide will be captured, used and/or stored as appropriate technology is developed to do so.

Air emissions include point source emissions from the CHP engines, the emergency flare, boilers, odour abatement stack (biofilter), gas upgrading plant stack and tank pressure relief valves. All emissions have been assessed in line with our technical guidance and appropriate emissions limits set in the permit. Site surface water run-off is re-used on site and excess water is discharged to ground via a soak-away.

This variation includes the installation of a digestate treatment plant as part of a trial (referred to as NOMAD trial).

The installation is located at National Grid Reference ST 86709 43655. The site is located on the south side of Warminster, Wiltshire, at the junction of the A36 and Deverill Road. The site is accessed from Deverill Road. The northern part of the site is largely disused, comprising the car parking area and a number of storage units. The nearest residential properties are approximately 250 metres north of the installation. River Avon SAC & SSSI and Salisbury Plain SPA, are located within 10 km of the site. There are 12 non-statutory habitat sites (Local Wildlife Site and Ancient Woodlands) located within 2 km of the installation.

## Changes introduced by the Waste Treatment BAT Conclusions

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for biowaste treatment.

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 considerations](#) section to show how the main relevant factors have been taken into account
- explains why we have also made an Environment Agency initiated variation
- 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 and the variation notice.

# Key issues of the decision

## Pre-operational conditions

Based on the information in the application, we consider that we need to impose pre-operational conditions. The justification for the pre-operational conditions is provided below.

### Pre-operational condition 1 – non-standard waste codes

The following wastes in the current permit are not specified in our revised biowaste treatment permit templates. We have retained these wastes in the current permit provided the applicant undertakes a detailed characterisation of the wastes prior to acceptance for treatment at the site in accordance with BATc 2a.

Waste code	Description
04 01 01	fleshings and lime split wastes
04 01 05	tanning liquor free of chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
20 01 38	untreated wood where no non-biodegradable coating or preserving substance is present

We made this decision with respect to waste types in accordance with the Framework Guidance Note – *Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment* (July 2013).

### Pre-operational condition 2 – commissioning

The proposed modularised green gas fuel (GGF) production plant (including the carbon dioxide recovery plant) and biofertilizer building 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 it is fully operational. Prior to commissioning of each plant, the applicant shall submit a commissioning plan to the Environment Agency for approval outlining the expected emissions during different stages of commissioning, the expected duration and timeline for completion of activities and any necessary action to protect the environment in the event that actual emissions exceed expected emissions.

It is recognised that certain information provided in the Application is based upon design data or data from similarly designed operational plant. The commissioning stage provides an early opportunity to verify much of this information.

### Pre-operational condition 3 – updated accident management plan

The applicant has not undertaken a Hazard and Operability Studies (HAZOP) and the Dangerous Substances and Explosive Atmosphere Regulations (DSEAR) assessment for the proposed plant. The operator reports that the HAZOP and updated DSEAR assessment cannot be carried out until infrastructure has been procured, installed and commissioned on site. Once the updated HAZOP and DSEAR assessments have been completed, the accident management plan will be updated accordingly and submitted to the Environment Agency. We have therefore addressed this issue via a pre-operational condition in the permit.

### Improvement conditions

Based on the information in the application and our own records of the capability and performance of the installation at this site, we consider that we need to set improvement conditions so that the outcome of the techniques detailed in the Waste Treatment BREF /BAT Conclusions are achieved by the operator. These improvement conditions and justifications for them are provided below.

### Improvement condition 1 and 2 – biogas upgrading plant & CO<sub>2</sub> recovery plant

The applicant submitted an H1 assessment to consider the impact of air emissions from the biogas upgrading plant. The emissions of hydrogen sulphide and volatile organic compounds (VOCs) were screened out as insignificant, in that process contributions were <1% of the long term ES and <10% of the short term ES. We conclude that emissions of hydrogen sulphide and VOCs are unlikely to have a significant impact on human health.

The emissions data (H<sub>2</sub>S and VOCs) from the biogas upgrading plant were obtained from the manufacturer and not based on real-time operational monitoring data. We consider it appropriate to set an Improvement condition (IC1) which requires the operator to undertake a monitoring survey following the commencement of operations at the biogas upgrading plant to obtain actual (real-time) operational monitoring data.

Improvement Condition 2 (IC2) requires the operator to undertake an air emissions impact assessment (H1 software tool) using 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 EP7. We have used this approach for biowaste treatment facilities proposing to install biogas upgrading plants across England.

### Improvement condition 3 – primary containment

We have not assessed primary containment as part of the ongoing biowaste treatment permit review for existing sites. Improvement conditions were set for

existing sites undergoing permit review. We have therefore set improvement condition 3 in the permit to address this aspect of the site infrastructure.

#### Improvement condition 4 – review of effectiveness of abatement plant

The operator provided information to support compliance with BATc 34. An enclosed bio-trickling filter and carbon filters are installed at the facility. As part of the Environment Agency approach to reduce emissions in the biowaste treatment sector, we have set improvement condition 4. The improvement condition requires the operator to review abatement plant on site, in order to determine whether existing measures have been effective and adequate to prevent and /or minimise emissions released to air. Where further improvements are identified, the operator is required to implement these measures.

#### Improvement condition 5 – assessment of methane slip

We have temporarily removed the need to monitor emissions of volatile organic compounds (VOCs) from the combustion of biogas in gas engines. We have included improvement condition 5 in the permit which requires the operator to assess methane slip resulting from the combustion of biogas via the CHP engine and other sources on site. Following an assessment of the data, the Environment Agency shall consider whether or not emission limits for volatile organic compounds are applicable for this installation.

### **NOMAD Trial**

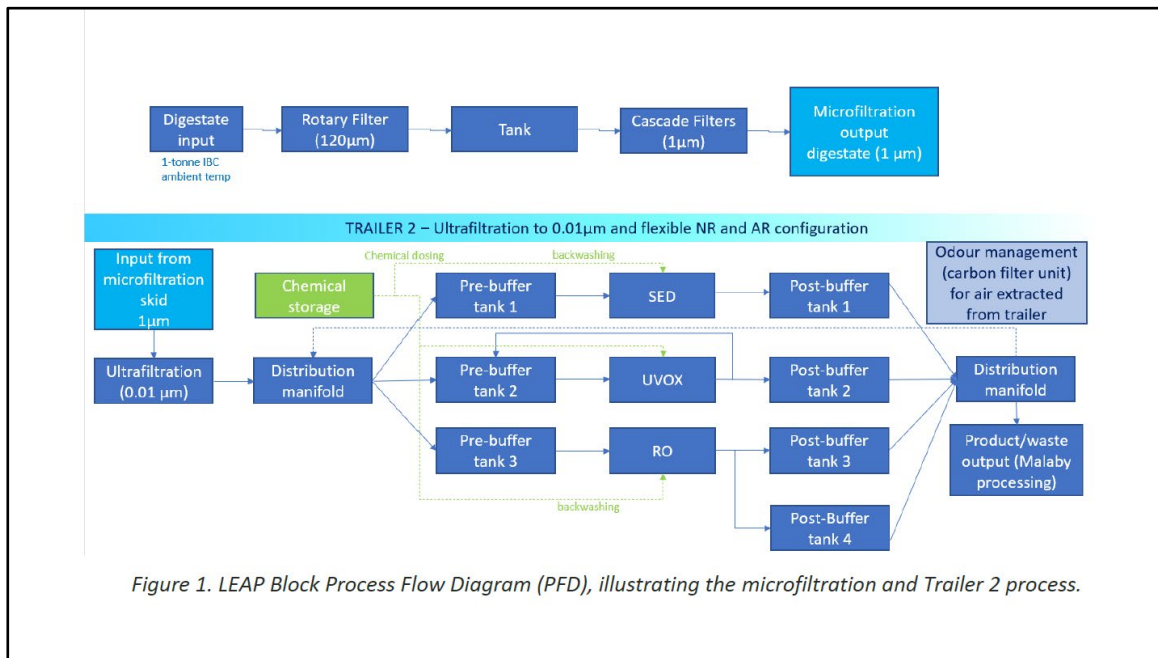
The applicant proposes to run a digestate treatment trial on site referred to as the “NOMAD trial”. The NOMAD H2020 project which is a pan-European collaborative research and development project which aims to prove the technical and commercial feasibility of a mobile waste treatment unit. Specifically, NOMAD aims to demonstrate that anaerobic digestate waste can be treated in a mobile unit to produce fertiliser products for use in a range of sectors.

#### Overview

Digestate liquor from the host site will be collected and fed into a microfiltration unit via a flexible hose. The microfiltration unit consists of a single rotary filter with 120 µm screen and a cascade filter system of 4 cartridges with washable nylon filter bags which reduce the particle size to 1 µm. The separated fibre from this stage of the process will be recycled back into the front end of the anaerobic digestion process.

Separated liquor from microfiltration will be fed into Trailer 2 and first passes through an ultrafiltration unit, reducing the particle size to 0.01 µm. The liquor then passes through a manifold from which the liquor can be directed to each of the onward processes such as selectrodialysis nutrient recovery, ultraviolet oxidation and reverse osmosis (SED, UVOX, RO). These treatment processes can be employed in any order depending on the research trial methodology. Waste arisings from the NOMAD process (separated solids, greywater, and product) are stored in a container for the duration of the day’s test run before being recycled back into the front end of the anaerobic digestion process. The

product obtained from these treatment processes can then be used as a fertiliser. The process is shown in the diagram below:



The applicant proposes to use input material from the final digestate storage tank which contains fully treated PAS110 complaint digestate only for the NOMAD digestate treatment trial. If there are any failures of the PAS110 digestate quality standard, then this would be investigated in accordance with the digestate quality management system and it would be managed correctly in relation to the failure(s) detected. The actions may include:

- Managing the digestate as a waste including spreading to land under a relevant deployment;
- Further processed as required;
- Retesting as required.

The air from the digestate treatment trailer will go through an in-situ carbon filter unit attached to the NOMAD trailer. Once air has passed through the carbon filter unit, it will be piped via an above ground pipe to the reception hall air handling system and then to the existing biofilter for further treatment. The volume of digestate passing through the proposed NOMAD system will be minimal – up to 2m<sup>3</sup> a day for a period of 2 months. This should be considered in relation to current average daily production figures of approx. 75 tonnes per day (equivalent to approximately 75m<sup>3</sup> a day).

### External storage of wastes

The applicant proposes to store undamaged, packaged, palletised and wrapped food waste in a covered container on the external yard area in front of the reception hall (up to 50 tonnes at any one time). There is no change to maximum tonnages or maximum residence times for solid waste within the reception hall or liquid waste in the feedstock buffer tank.

The wastes to be stored outside the building will be out-of-date or out of specification materials (e.g. wrong barcode) wastes from primary producers i.e. food and drink manufacturing premises or bulk storage depots e.g. cold stores. The requirement to store these lower risk wastes outside the building is strictly short term (worst case 14 days) and all wastes will be securely packaged, wrapped and protected. The wastes will be inspected daily as part of our wider site checks undertaken – if there are signs of any leakage these pallets will be removed into the reception hall for immediate processing.

The environmental risk from the external storage of undamaged, packaged, palletised and wrapped food waste is deemed to be limited to the potential for packaging to be damaged and for spillages to occur.

The following control measures will be in place:

- All palletised waste will be inspected upon receipt and only totally undamaged, packaged, palletised and wrapped food waste will be stored in a covered trailer on the external yard area in front of the reception hall. Any pallets containing damaged containers will be stored within the reception hall.
- The pallets will be stored in a dedicated location away from vehicle movements and protected by visible barricades.
- Waste will be moved from the external yard into the reception hall using a *first-in first-out* procedure where possible and accounting for other waste inputs that are more time critical. Movements will be carried out using existing standard operating procedures to ensure that the roller shutter doors are only opened whilst vehicles are entering and leaving the building.
- The waste stored in the external yard will be subject to a daily inspection for signs of damage or spillages. Any pallets containing damaged containers will be moved immediately to the reception hall. Small spillages will be managed in accordance with Standard Operating Procedure Spillages (SOP101). Large spillages will be managed in accordance with Section 5 of the Emergency Action Plan (MBLSOP999).
- The drainage for the external yard falls to a grit trap and petrol interceptor prior to the soakaway. There is a rapid reaction soakaway isolation valve to isolate the drainage system from underground discharge of contaminated material. This isolates the drainage system to provide containment and safe disposal of contaminated material. The grit trap, interceptor and rapid reaction valve are inspected and checked for proper positioning every day as part of daily site inspection procedures.
- There will be no increase in traffic movements or handling of waste as a result of the storage of palletised waste in the yard as it would be off-loaded in this area and then a forklift truck used to transport the pallets into the building.



- The sump within the secondary containment sump is checked daily. If rainwater has collected in the sump, then this is pumped out to the soakaway via the grit trap and petrol interceptor. If there are any spillages in the secondary containment then the collected water is pumped to the buffer tank and treated within the AD plant.
- If odour from the external storage of waste were to be detected during the daily walk-through checks or at any other time then the odour management plan would be followed, specifically Table 5.1 Contingency Control Measures for Accidents & Incidents, in relation to a spillage of feedstock in the yard:
- If pests are detected during the daily walk-through checks or at any other time then the pest management plan would be followed, specifically Section 2.2.3 Control Measures and Section 3 Additional Pest Control Measures.

Overall, the Environment Agency considers that the applicant has proposed appropriate measures to minimise any impact of odour and fugitive emissions on nearby sensitive receptors. The permit conditions are sufficient to ensure that odour and emissions of substances not controlled by emission limits do not cause pollution. The operator is required to implement mitigation measures in line with their odour management plan and pest 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 odour and fugitive emissions to air, land and water.

# Decision considerations

## Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- UK Health Security Agency (formerly Public Health England)
- Health & Safety Executive
- Wiltshire County Council (Planning Authority)
- Wiltshire Council (Environmental Control & Protection)
- National Grid
- Food Standards Agency
- Fire & Rescue Service

The comments and our responses are summarised in the [consultation responses](#) section.

No response received from:

- Health & Safety Executive
- Wiltshire County Council (Planning Authority)
- Food Standards Agency
- Fire & Rescue Service

## The regulated facility

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 RGN2 'Defining the scope of the installation']. The extent of the facility defined in [the site plan and in the permit. The activities are defined in table S1.1 of the permit.

## The site

The operator has provided a plan which we consider to be satisfactory. 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.

## **Nature conservation, landscape, heritage and protected species and habitat designations**

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England. The decision was taken in accordance with our guidance.

## **Environmental risk**

We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be screened out as environmentally insignificant.

## **Operating techniques**

We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

## **National Air Pollution Control Programme**

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

## **Odour management**

We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory and we approve this plan.

We have approved the odour management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'. The plan has been incorporated into the operating techniques S1.2.

## **Changes to the permit conditions due to an Environment Agency initiated variation**

We have varied the permit as stated in the variation notice.

## **Waste types**

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. The wastes are specified in Table S2.2, S2.3 and S2.4 in the permit. We are satisfied that the operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities – biological treatment;
- the proposed infrastructure is appropriate; and
- the environmental risk assessment is acceptable.

We made this decision with respect to waste types in accordance with the Framework Guidance Note – Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment (July 2013).

## **Pre-operational conditions**

Based on the information in the application, we consider that we need to include pre-operational conditions (see Key Issues section).

## Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme (see Key Issues section).

## Emission limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for the following substances:

### Emissions to air (Table S3.1 in the permit)

- Ammonia – 20 mg/m<sup>3</sup> (Odour abatement)
- Oxides of Nitrogen (NO and NO<sub>2</sub> expressed as NO<sub>2</sub>) – 500 mg/m<sup>3</sup> (CHP engines); 250 mg/m<sup>3</sup> (boiler 1 & 2); 150 mg/m<sup>3</sup> (emergency flare)
- Sulphur dioxide – 350 mg/m<sup>3</sup> & 162 mg/m<sup>3</sup> (CHP engines); 200 mg/m<sup>3</sup> (boiler 1 & 2);
- Carbon monoxide – 1400 mg/m<sup>3</sup> (CHP engines); 50 mg/m<sup>3</sup> (emergency flare)
- Total VOCs – 10 mg/m<sup>3</sup> (emergency flare)

### Emissions to land (Table S3.2 in the permit)

- Total organic carbon (TOC) – 60 mg/l
- Chemical oxygen demand (COD) – 180 mg/l
- Total nitrogen – 25 mg/l
- Total phosphorus – 2 mg/l
- Total suspended solids – 60 mg/l

We have included these limits based on the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

## Monitoring

We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:

- Ammonia (Odour abatement) – 6-monthly
- Oxides of Nitrogen (CHP engines, boiler 1 & 2 and emergency flare) – Annual
- Sulphur dioxide (CHP engines and boiler 1 & 2) – Annual
- Carbon monoxide (CHP engines and emergency flare) – Annual
- Total VOCs (emergency flare) – Annual

### Emissions to land (Table S3.2 in the permit)

- Total organic carbon (TOC) – Monthly

- Chemical oxygen demand (COD) – Monthly
- Total nitrogen – Monthly
- Total phosphorus – Monthly
- Total suspended solids – Monthly

These monitoring requirements have been included in order to ensure that emissions are in compliance with the existing BAT-AELs. We made these decisions in accordance with the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

## **Reporting**

We have specified reporting in the permit. Reporting forms have been prepared to facilitate reporting of data in a consistent format.

These reporting requirements are deemed sufficient and proportional for the Installation. We made these decisions in accordance with the requirements of the Industrial Emissions Directive (IED) and the Waste Treatment BREF /BAT Conclusions 2018.

## **Management system**

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permit

We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points. A full review of the management system is undertaken during compliance checks.

## **Previous performance**

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions. We have assessed operator competence. We have checked our systems to ensure that all relevant convictions have been declared. 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**

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 variation.

Paragraph 1.3 of the guidance says:

“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.”

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.

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

# Consultation Responses

The following summarises the responses to consultation with other organisations, and 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 **UK Health Security Agency**

Brief summary of issues raised:

Based on the information contained in the application supplied to us, UKHSA has no significant concerns regarding the risk to the health of the local population from the installation. However, we note that the proposed GGF has not been assessed and request that any future development of this process be subject to further review. This consultation response is based on the assumption that the permit holder shall take all appropriate measures to prevent or control pollution, in accordance with the relevant sector guidance and industry best practice.

Summary of actions taken:

We have addressed emissions from the proposed green gas fuel production plant in this decision document. Improvement condition 1 and 2 have been included to obtain real-time data from site operations. The installation will be operated in accordance with BAT to prevent or control pollution as specified in the Waste Treatment BREF /BAT Conclusions 2018 and our technical guidance notes: Biological waste treatment: appropriate measures for permitted facilities and H4 – Odour Management.

### Response received from **Wiltshire County Council**

Brief summary of issues raised:

Concern regarding significant difference and gap between the Environment Agency interpretation of BAT for controlling odour emissions from the site, and preventing detriment to amenity to existing (and future) nearby residents. This gap is significant and of concern particularly in light of the planning application currently under consideration which would place a new residential housing estate adjacent to the installation and closer than existing dwellings. The EA will need to explore in more depth what acceptable emissions are with BAT, and whether or not this would result in detriment to amenity of existing or future residents.

We therefore have significant concerns that increasing the amount of waste handled at the site, will result in more odour complaints and wish to object to approval of this application.

Summary of actions taken:

The Waste Treatment BAT conclusions identifies the best environmental performance levels, on the basis of the available data in the European Union and



worldwide and selects the best available techniques (BAT), their associated emission levels (and other environmental performance levels) and the associated monitoring for the sector. The techniques listed and described in these BAT conclusions are neither prescriptive nor exhaustive. Other techniques may be used that ensure at least an equivalent level of environmental protection. The BAT conclusions do not set thresholds for individual sites due to varying local environmental conditions.

The operator has submitted an odour management plan as part of the variation. We required further information from the applicant during the determination and we sent an information notice dated 23/01/2023. We have assessed the OMP and the additional information provided in the determination and we consider that the proposed odour management procedures are appropriate.

The operator provided information to support compliance with BATc 34. A biofilter and carbon filters are installed at the facility. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 34.

We have set a BAT-AEL for ammonia as specified in the Waste Treatment BREF and BAT Conclusions. In addition to the BAT-AEL, we have inserted the requirement to monitor odour concentration, hydrogen sulphide and ammonia on a 6-monthly frequency in Table S3.3 (process monitoring).

As part of our approach to reduce emissions in the biowaste treatment sector, we have included an improvement condition 4 (IC4) which requires the operator to review abatement plant on site, in order to determine whether existing measures have been effective and adequate to prevent and /or minimise emissions released to air. Where further improvements are identified, the operator is required to implement these measures.

If and when the new residential housing estate is built, the operator will be required to assess the effectiveness of existing odour management measures on site. Where there are significant odour complaints from site operations, the site may be required to go beyond BAT to ensure that operations do not cause annoyance via emissions of odour. As a last resort, the Environment Agency may vary the existing permit to restrict certain operations or reduce throughput altogether.

#### Response received from **National Grid**

Brief summary of issues raised:

There are no National Grid gas assets affected in this area.

Summary of actions taken:

No further action.