

## Permitting Decisions- Bespoke Permit

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We have decided to grant the permit for Melton Waste Park Anaerobic Digestion Facility operated by Melton Energy Tech Ltd.

The permit number is EPR/ZP3322SC/A001

The permit was granted on 04/08/2025.

The application is for a new anaerobic digestion (AD) facility which is designed to process up to 57,200 tonnes per annum of organic fraction municipal solid waste (OFMSW) and green waste. Following treatment, the resultant biogas is upgraded and injected into the gas grid. The biological treatment of waste at this facility will be regulated as a recovery activity under Section 5.4 A(1)(b)(i) of the Environmental Permitting Regulations 2016.

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:

- summarises the decision making process in the decision considerations section to show how the main 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.

# Key Issues

## **Inventory of waste water (BATc 3) – Improvement condition 5a, 5b and 5c**

Anaerobic digestion (AD) facilities produce waste waters and liquors (including digestate) during pre-treatment of wastes, digestion of wastes, the production of biogas condensate, biogas upgrading, digestate separation and post-digestion storage. The digestate is either spread on land or treated off site at waste water treatment works (WwTW). Following discharge to the WwTW, the treated effluent is discharged to surface waters (rivers or streams) or in some cases directly to sea.

The operator reports that whole digestate will be separated into the liquid and solid fractions. The liquid fraction will be stored on site and will be re-circulated in the digestion process. The solid fraction will be stored temporarily on site prior to despatch off-site for use. Where levels of contaminants such as heavy metals in the recirculated liquid digestate are too high, surface water (dirty surface water) will be added and some of the liquor removed and sent to a WwTW for treatment.

The Waste Treatment BAT Conclusions require operators to establish and to maintain an inventory of waste water, as part of the environmental management system (BATc 3) as follows:

*In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system, that incorporates all of the following features which are identified for waste water as:*

*Information about the characteristics of the waste water streams, such as:*

- *average values and variability of flow, pH, temperature, and conductivity;*
- *average concentration and load values of relevant substances and their variability (e.g. COD/TOC, nitrogen species, phosphorus, metals, priority substances / micropollutants);*
- *data on bioeliminability (e.g. BOD, BOD to COD ratio, Zahn-Wellens test, biological inhibition potential (e.g. inhibition of activated sludge))*

The waste materials treated via the AD installation are potentially diverse and the composition of the recirculated digestate could contain significant variation in pollutants. To establish a waste water inventory and to facilitate a quantitative risk assessment from this indirect emission point, we have set improvement conditions.

We have included improvement conditions IC5a, IC5b and IC5c in the permit to address these deficiencies. There are three stages to this improvement programme. The first (IC5a) requires the operator to submit and carry out a sampling and analysis program and gather the relevant data on the waste water. The IC sets the requirement on the operator to establish an inventory of pollutants of 'all relevant substances'. The scope of pollutants the operator must identify depends on what substances are likely to be within the waste water at the point it is discharged from the installation. To determine what is in the waste water, the

operator will need to examine and have a good understanding of the inputs to the installation.

On completion of IC5a, IC5b requires the operator to undertake a full assessment of the results providing a summary of the sample results, a completed H1 risk assessment(s) and detailed modelling (where necessary) with an assessment made against the parameters specified in the relevant environmental standards as specified within our guidance. We also require the operator to submit proposals and/or additional measures required to prevent or minimise any significant emissions from the installation along with timescales for implementation. IC5c requires the implementation of any relevant improvements identified.

## Decision considerations

### Confidential information

A claim for commercial or industrial confidentiality has not been made.

### Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

### 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:

- Local Planning Authority
- Director of Public Health
- UK Health Security Agency
- Local Fire & Rescue
- Food Standards Agency
- Health & Safety Executive
- National Grid
- Animal and Plant Health Agency

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

### Operator

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 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' and Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

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.

## **The site**

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

This shows 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.

## **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.

- Humber Estuary SAC, SPA, Ramsar and SSSI (approximately 590m south)
- Melton Bottom Chalk Pit SSSI (approximately 1425m north).

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.

## **General operating techniques**

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.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

## **Operating techniques for emissions that screen out as insignificant**

Emissions of oxides of nitrogen dioxide, sulphur dioxide and carbon monoxide have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

## **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'.

While we consider that the applicant's proposals represent the appropriate measures to prevent/ minimise odour from the permitted activities, we also

consider that it is appropriate to include a specific Emission Limit Value (ELV) in respect of odour emissions to provide additional environmental protection.

The plan has been incorporated into the operating techniques S1.2.

## **Fire Prevention Plan**

We have assessed the fire prevention plan and are satisfied that it meets the measures and objectives set out in the Fire Prevention Plan guidance.

We have approved the fire prevention 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 plan has been incorporated into the operating techniques S1.2.

## **Waste types**

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons:

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

We have excluded the following wastes for the following reasons:

- 19 12 10 - combustible waste RDF
- 20 03 03 – street cleaning residues

Waste under these two codes cannot be accepted for biological treatment.

We have restricted the following wastes for the following reasons:

- 19 06 03 - liquor from anaerobic treatment of municipal waste
- 19 06 04 - digestate from anaerobic treatment of source segregated biodegradable waste
- 19 06 05 - liquor from anaerobic treatment of animal and vegetable waste

These wastes must come from a process that accepts wastes which are listed in table S2.2 of the permit only and is made up of previously pasteurised and stabilised batches only.

- 19 06 06 - digestate from anaerobic treatment of animal and vegetable waste

This waste must come from previously digested sewage sludge only.

EWC codes 19 06 03, 19 06 04, 19 06 05 and 19 06 06 shall be accepted on site for the purpose of seeding the digesters during commissioning only. Following approval of pre-operational condition 2 by the Environment Agency and completion of commissioning, the receipt and treatment of this waste stream shall cease.

The operator has provided contamination levels for some waste streams accepted for treatment at the anaerobic digestion facility. The operator reports that contamination levels will vary between 28% to 30% for waste streams EWC 19 05 01, 19 05 03 and 19 12 12. We have excluded these waste streams from the 5% contamination level target in Table S2.2.

## **Pre-operational conditions**

Based on the information in the application, we consider that we need to include pre-operational conditions:

### **1. Pre-operational condition for final site Environmental Management System (EMS)**

The applicant provided a BAT summary of the EMS as part of the application. We have set pre-operational condition 1 which requires the operator to provide a final EMS prior to commissioning of the installation and to make available for inspection all EMS documentation. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.

### **2. Pre-operational condition for site commissioning plan**

We have set pre-operational condition 2 which requires the operator to provide a site commissioning plan. The commissioning plan shall include 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 the Environment Agency in the event that actual emissions exceed expected emissions. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.

### **3. Pre-operational condition for secondary containment**

We have set pre-operational condition 3 which requires the operator to ensure that a review of the design, method of construction and integrity of the site secondary containment is completed before any site operations can commence. The review



must be carried out by a competent person such as a qualified civil or structural engineer. The review must be undertaken in accordance with CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard and shall compare the constructed secondary containment against the standards stated above.

The review shall include:

- physical condition of the constructed secondary containment
- the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure;
- any work required to ensure compliance with the standards detailed in CIRIA C736 or other relevant industry standard; and
- a maintenance and inspection regime

A written report with details of the review including details of any remedial action recommended by the review undertaken, shall be submitted to the Environment Agency. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.

#### 4. Pre-operational condition for the management of waste digestate

We have set pre-operational condition 4 which requires the operator to submit an updated digestate management plan with options for the management of the solid and liquid fraction of the digestate. The plan shall take into account the waste hierarchy especially the landfilling of the solid digestate fraction. The plan shall be implemented by the operator as approved by the Environment Agency.

## Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

### **IC1 and IC2 - Improvement conditions for assessing emissions from the biogas upgrading plant (point sources only)**

We have included improvement conditions for the operator to verify the assumptions made in relation to the release of pollutants to air from their biogas upgrading plant. The operator is required to carry out a monitoring study, over a period of a year, with at least two monitoring campaigns (IC1).

Following the monitoring study, IC2 requires the operator to complete an emissions impact assessment which include reports showing details of the monitoring undertaken and the results obtained and an assessment of the long term and short term impacts, including a H1 assessment. If the assessment shows potential impact from the emissions, the operator will propose an action plan to reduce the impacts of the substances. Following the review of results from the monitoring

survey and impact assessment, the Environment Agency shall consider whether or not emission limits are appropriate. We have used this approach for biowaste treatment facilities proposing to install biogas upgrading plants across England.

### **IC3 - Improvement condition for establishing a Leak detection and repair programme**

We have included improvement condition 3 which requires the operator to review all sources of methane leaks from the site using a leak detection and repair (LDAR) programme. We have therefore set an improvement condition for the operator to submit a LDAR programme to detect and mitigate the release of VOCs (including methane) from diffuse sources and set up a monitoring regime.

### **IC4 - Improvement condition for review of effectiveness of abatement plant**

We have included improvement condition 4 for the operator to consider the whether the measures included within their odour management plan and in particular, the abatement plant are effective at preventing odour from leaving the site boundary. IC4 requires the operator to propose improvements where required and provide a timeframe for the implementation of these improvements.

### **IC5 - Improvement condition for establishing an inventory of liquid waste water from anaerobic digestion and assessing the impact of indirect discharges to water**

Please see Key Issues.

## **Emission Limits**

We have decided that emission limits are required in the permit. Emission Limit Values (ELVs) and technical measures based on Best Available Techniques (BAT) have been added for the following substances:

#### Emission points to air

- Nitrogen oxides
- Sulphur dioxide
- Carbon monoxide
- Total volatile organic compounds
- Ammonia
- Odour concentration

Please refer to Table S3.1 of the permit for further details.

#### Emission points to surface water

We have imposed descriptive limits on visual appearance and visible oil and grease.

## **Monitoring**

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

These monitoring requirements have been included in order to comply with the Waste Treatment BAT Conclusions. We made these decisions in accordance with Waste Treatment BAT Conclusions.

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. Details are provided in Table S3.1 and S3.2 of the permit.

## **Reporting**

We have specified reporting in the permit. We made these decisions in accordance with Waste Treatment BAT Conclusions. Please refer to Table S4.1 of the permit for further details.

## **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 permits.

## **Technical Competence**

Technical competence is required for activities permitted. The operator is a member of the CIWM/WAMITAB scheme. We are satisfied that the operator is technically competent.

## **Previous performance**

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

## **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.

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, 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 East Riding of Yorkshire District Fire and Rescue Service

Brief summary of issues raised:

1. It is a requirement of Approved Document B5, Section 15 Commercial Properties or B5, Section 13 for Domestic Premises that adequate access for fire fighting is provided to all buildings or extensions to buildings. Where it is a requirement to provide access for high reach appliances, the

route and hard standing should be constructed to provide a minimum carrying capacity of 26 tonnes.

2. Adequate provision of water supplies for firefighting appropriate to the proposed risk should be considered. If the public supplies are inadequate it may be necessary to augment them by the provision of on-site facilities.

#### Summary of actions taken:

1. The requirement the consultee refers to is a requirement of The Building Regulations 2010 and therefore, these are considered under local authority planning. No further action was required.
2. A full assessment of the operator's Fire Prevention Plan (FPP) was undertaken. Water supplies are a key consideration of the plan and must meet the requirements as stated in the Fire Prevention Plan guidance on gov.uk. The FPP submitted with the application did not propose adequate water supplies, within a reasonable distance to the site. We issued a Schedule 5 Notice (issued 10/04/2025) and subsequent emails to request further information. Following this, the operator included adequate water supplies within their FPP to enable them to have enough water available for firefighting to take place and to manage a reasonable worst case scenario.

#### Response received from UK Health Security Agency (UKHSA)

##### Brief summary of issues raised:

1. Bioaerosols, combustion products and odours are the main emissions of potential concern. However, it's noted that the assessments provided with the application indicate that the installation has mitigation measures and management plans in place such that the residual, off-site risks associated with these emissions have been assessed as either insignificant and/or low, particularly as there would appear to be no sensitive receptors within 400m of the site.

##### Summary of actions taken:

1. We agree with the UKHSA that the risk from bioaerosols are low, particularly considering that all activities are undertaken inside a building, with the exception of digestate storage which takes place in a covered skip. Products (emissions) from the combustion of gases were assessed as part of determination and ELV's have been included in the permit in accordance with our guidance. Emissions of odour have been considered as part of the assessment of the odour management plan. We consider that the odour management plan is satisfactory and the plan has been approved.