Permitting Decisions - Bespoke Permit

We have decided to grant the permit for Brains Farm Anaerobic Digestion Facility operated by Japan Environmental Development and Investment UK Limited.

The permit number is EPR/FP3628SH/A001.

The permit was granted on 04/04/2025.

The application is for a new bespoke anaerobic digestion which is designed to process up to 50,000 tonnes per annum of non-waste energy crops and wastes. The biological treatment of waste and non-waste feedstock at this facility will be regulated as a recovery activity under Section 5.4 A(1)(b)(i) of the Environmental Permitting Regulations 2016.

Plant feedstock comprising maize, grass, whole crop silage and straw will be delivered on site and stored within dedicated covered clamps which are designed to meet the Silage, Slurry and Agricultural Fuel Oil (SSAFO) Regulations. Chicken litter, pig and cattle manures (mixed with straw litter), fruit and vegetable waste will be brought onto site, sheeted and stored temporarily on hardstanding with sealed drainage before being inputted into the digestion process.

Following mixture, the feedstock will be fed into the digesters via the feeding hoppers for biological treatment by anaerobic digestion in the primary and secondary digesters at a maximum rate of 137 tonnes a day, with an average retention time of 65 days. Following digestion, the by-product from the process (whole digestate) will be transferred to one of three pasteurisation tanks for heat treatment at 70ºC for a minimum of one hour in accordance with the Animal By-Product Regulations.

The by-product from the process (digestate) will be separated into the solid and liquid fraction. The digestate will be passed through a screw press to separate out the solid fraction. This fraction is collected in a bunker under the separator for use on land as an organic fertilizer and soil improver. The liquid fraction will be transferred to a covered digestate storage lagoon prior to despatch off-site for landspreading. This environmental permit does not authorise the spreading of digestate on any land.

The biogas produced will be stored in the roof space of the primary and secondary digesters. Biogas will be diverted to the boiler where it will be combusted to produce heat for the digesters or the biogas upgrading unit, where it will be upgraded to produce biomethane that can be injected into the national grid. The combined heat and power (CHP) engine will be fired on natural gas to power the

installation. An emergency flare will operate to deal with any excess biogas, off-specification biomethane or situations where there is a risk of excess pressure building up within the system, especially when the gas upgrading plant and the auxiliary boiler are not running due to routine maintenance or breakdown.

The main emissions to atmosphere from the installation are exhaust gases from the combustion plant (boiler, emergency generator, CHP engine and emergency flare) and the venting of unburned biogas via pressure relief valves (PRVs) serving the primary and secondary digesters. All emissions have been assessed in line with our technical guidance and appropriate emissions limits set in the permit.

There are no process discharges to controlled waters or sewer. Uncontaminated rainwater falling within non-operational areas will be collected in an attenuation pond and will be used for site processes. The site is provided with surfacing and secondary containment constructed in line with industry best practice standards to reduce the impact of pollution to surface water and groundwater.

The installation operates under an Odour Management Plan (OMP). This includes detailed control measures to minimise odour emissions from the permitted activities and actions to be taken in the event of an odour complaint. All tanks within the installation area are enclosed and there are two odour control units. A wet scrubber serves the digestate lagoon, dirty water tanks, separation tank, pasteurizer tanks, recirculation tank and preliminary liquid feed tank. A carbon filter unit is incorporated to serve the tanker digestate extraction area. An Environmental Management System (EMS) will be in place prior to the commencement of site operations with waste.

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
- highlights key issues in the determination
- 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 of the decision

Management of odour emissions

The operations at the installation are considered inherently odorous and therefore we have required an odour management plan (OMP) prepared in accordance with the Environment Agency's H4 guidance.

The applicant (now the operator) submitted an OMP with the Application. During the determination, we requested more information from the applicant with respect to the management of odour emissions on site. Key measures of the applicant's OMP are discussed below.

Inventory of materials

We are satisfied that the applicant has provided an inventory of odorous materials at the installation. The inventory provides an assessment of the odour potential of wastes that will be accepted according to its source i.e. broiler and layer litter, pig and cattle manure mixed with straw, vegetable and fruit wastes.

These wastes are stored on hardstanding with sealed drainage and are covered, until transferred into the AD process. Storage times are minimised to reduce the risk of odour emissions on site.

Waste and non-waste feedstock will be transferred directly into incoming waste storage tanks for onward processing. The operator states that staff have been fully trained to identify any incoming wastes that are not permitted for treatment under the permit. Any non-permitted waste (whole or part loads, as appropriate) is rejected and an electronic record made. If a particularly odorous permitted waste load is received, it will be inputted into the process as soon as reasonably practicable. As part of the pre-acceptance checks with potential new feedstock suppliers, full details of the type of waste, the estimated annual quantities for delivery, the frequency of deliveries, the age of the material and any other aspects which may affect the nature of the material will be fully assessed prior to a waste supply contract being entered into.

The operator reports that contingency arrangements for diverting feedstock will be implemented if required in the event the facility is approaching full capacity in terms of processing and storage of waste. In the event of plant/essential equipment malfunction or breakdown and the plant cannot accept or process feedstock, arrangements will be implemented to manage and divert any waste deliveries until normal operations resume (e.g. keep at waste producer's facility where possible or divert to another facility).

We consider robust pre-acceptance and acceptance procedures to be vital in ensuring a complete understanding of the odour potential of wastes accepted on site. The applicant has provided pre-acceptance procedures in the Application that

are in accordance with the BAT Conclusions and the Environment Agency's appropriate measures guidance.

Management of sources of odour on site

The primary odour control measures are related to the utilisation of enclosed systems and minimisation of storage durations of odorous materials. Waste feedstocks are stored in sheeted piles. The sheeting is only removed to allow wastes to be added to or removed from the piles. The sheeting is made of 0.5-1.5mm heavy duty plastic and will be supported by a metal frame to provide a wall and roof structure. The sheets are removed twice a day for no more than 20-40 minutes on each occasion, to allow material to be removed from and added into the piles.

The maize, grass and whole crop silage are stored within silage clamps with comply with the requirements of The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations and the code of good agricultural practice. The compacted feedstock in the clamps will be first covered by an oxygen barrier sheet to maintain the silaging process then by an additional cover which will be weighted down. When removing the silage for input into the process, the face of the clamp is kept as small and compact as possible. On delivery and removal of silage, any material which has escaped the clamps will collected and returned to the clamp immediately to avoid diffuse emissions of odour.

Effluent drainage from the storage of waste and non-waste feedstocks is stored within one of three enclosed tanks. This effluent is directed to the preliminary tank for use within the process. Odorous emissions from the preliminary tank will be directed to the abatement system consisting of a wet scrubber and carbon filter.

The movement of feedstocks from storage to the hoppers occurs outside of any building therefore has the potential to release odours. This movement is limited to twice a day and the hoppers will be uncovered for a maximum of 20-40 minutes on each occasion.

The digestate separator will benefit from a movable enclosure which will be placed over the unit when it is in operation to provide a barrier to odour release and be removed to allow maintenance of the plant to occur. The separated solid digestate is stored within a concrete bunker consisting of three concrete walls and a heavy-duty plastic curtain covering the front of the storage bunker. This curtain will remain closed except for when the solid digestate is being removed from the bunker.

The liquid digestate lagoon is covered by an impermeable 1mm thick low-density polyethylene membrane. The membrane is anchored into the ground outside of the lagoon bund to create a sealed system. A total of six vents are present within the membrane and the gaseous releases from these vents are captured and directed to the abatement system consisting of a wet scrubber and mid-flo carbon filter.

The digestate inlet/filler pipe to the lagoon is a sealed, fixed in situ pipe that conveys separated liquid digestate directly from the digestate separator to the separated liquid storage lagoon. Filling takes place below the lagoon cover. As such, displaced air arising from filling will vent through the lagoon cover vents which in turn will be channelled to the abatement system prior to release to atmosphere. The liquid digestate is fed into the lagoon by sealed pipework that passes through the membrane cover. The liquid digestate extraction pipework also passes through the membrane cover and is fitted with an airtight valve arrangement.

The digestate tanker offtake point for the lagoon is fitted with a valve arrangement, valves being opened once tankers are coupled up to remove digestate. Displaced air from tankers on filling is passed through a carbon filter before being released to atmosphere. The carbon filter is fitted to a mobile flexible pipe which will be connected to the tanker outlet during filing. The valve arrangement at the offtake point is closed once tankers have finished loading preventing loss of any liquid or odours. Tanker offtake connection points are fitted with locked end caps when not in use. All penetrations through the cover are weld sealed and the pipes are fixed with welded straps to the lagoons base to prevent any excessive movement.

Gaseous emissions are captured and directed to an abatement system from the recirculation tank, buffer tank, underground dirty water storage tanks, digestate lagoon, pasteurisation tanks and separator tank. These gases are directed to the abatement system by sealed PVC pipework.

Containment and abatement of odorous emissions

We accept that even though appropriate management of the AD facility will minimise the potential for odour, containment and abatement of odour is still required.

We asked the applicant to provide a detailed justification for the choice of odour abatement technology proposed for the installation during the determination. The applicant reported that gaseous emissions will be initially routed to a containerised wet scrubber which is constructed to BS EN 12573:2000 standard. The wet scrubber process involves passing the captured gases through a chamber, where an acid solution is sprayed. This creates a scrubbing action, allowing the solution to come into direct contact with the gas and remove pollutants such as ammonia gas.

Following the wet scrubber, the gases flow to a Hi-Flo deep bed carbon adsorber system. The activated carbon within the vessel adsorbs the remaining ammonia and any other remaining odorous compounds before being discharged to atmosphere. The media within the carbon vessel is impregnated with copper to assist in the removal of hydrogen sulphide from the gas stream. A two-second dwell time is maintained across the activated carbon media bed within the adsorber.

The displaced air from the liquid digestate collection tanker filling operation is passed through a passive activated carbon filter. Pipework is connected from the filter system to the tanker and sealed prior to any filling. As the tanker then fills the displaced air is forced out through the pipework to the carbon filter. Odorous compounds are absorbed by the activated carbon within the filter before being discharged to atmosphere.

Compliance with BAT-AELs

The applicant reports that both techniques are listed as appropriate in BATc 34 of the Waste Treatment BAT Conclusions and consider it BAT for this installation. We are in agreement with the justification of BAT at this installation. As part of the Environment Agency approach to reduce emissions in the biowaste treatment sector, we have set improvement condition 4 (IC4). The improvement condition requires the operator to review abatement plant on site, in order to determine whether the abatement plant is 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.

Emergencies and incidents

The applicant has considered the impact of emergencies and incidents on odour emissions. We are satisfied that contingency actions will be taken should there be any site incident and/or emergency. We are satisfied with the timescales that the applicant has proposed for plant or parts repair or replacement and the applicant's commitment to cease waste acceptance in the event of plant breakdown.

Our 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 proposed in the OMP. The odour conditions in the permit are sufficient to ensure that odour emissions from the facility do not 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 Technical Guidance H4 – Odour Management and Biological waste treatment: appropriate measures for permitted facilities Biological waste treatment: appropriate measures for permitted facilities - Guidance - GOV.UK (Updated 25 November 2024) . 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.

Management of noise emissions

The application contained a noise impact assessment which identified local noise-sensitive receptors, potential sources of noise at the proposed installation and noise attenuation measures. Measurements were taken of the prevailing ambient noise levels to produce a baseline noise survey and the noise levels arising from the facility were calculated using the noise modelling software, CadnaA, via the methodology detailed in ISO9613-2. 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 assessment concluded that during typical operations, the noise impact arising from operations at the facility are considered low in accordance with BS4142 at all receptors. The impact during the peak operational period, when there are increased vehicle movements during harvest periods, is again considered low at all receptors. During a night-time emergency operational period, when both the flare and standby generator are in operation temporarily, noise impact arising from operations at the facility are considered low in accordance with BS4142 at all receptors. Given the above, it is concluded that noise from the facility would result in no sustained adverse noise impacts on any of the receptors in the vicinity of the development.

The assessment carried out by the applicant is based on equipment that has not yet been operated in real-time scenario. From information supplied within the application, we consider that the proposed installation will not cause an additional noise impact at the nearest sensitive receptors. We have set improvement condition 5 (IC5) in the permit requiring the operator to undertake an assessment of noise emissions 6 months following the commencement of site operations. This is to validate the assessment of noise impact submitted in the application and ensure that any adverse impact can be identified and rectified at the earliest opportunity.

Based upon the information in the Application, we are satisfied that the 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 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.

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

The comments and our responses are summarised in the consultation responses section.

The application was publicised on the GOV.UK website from 22 August 2024 to 20 September 2024.

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 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 not 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.

Operating techniques for emissions that screen out as insignificant

Emissions of nitrogen dioxide, carbon monoxide and sulphur dioxide 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. See key issues section.

Noise and vibration management

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

We have approved the noise and vibration 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’.

We consider that the activities carried out at the site have the potential to cause noise and/or vibration that might cause pollution outside the site and consider it appropriate to include specific measures.

The plan has been incorporated into the operating techniques S1.2. See key issues section.

Raw materials

We have specified limits and controls on the use of raw materials and fuels.

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.

Pre-operational conditions

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

Pre-operational condition 1 – Final Environment Management System

The applicant provided a BAT summary of the EMS as part of the application. A formal EMS will be developed prior to the commencement of operations with waste to ensure that environmental risks and impacts are managed proactively, all legislative requirements are complied with and procedures are in place to enable timely and effective response to environmental incidents should they occur. The operator has completed the Environment Agency AD site assessment spreadsheet tool and the results will be taken into account when developing the final site EMS.

We have set pre-operational condition 1 (POC1) which requires the operator to provide a provide the final EMS prior to commissioning of the installation with waste and to make available for inspection all EMS documentation.

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

Pre-operational condition 2 – Commissioning plan

The 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 operational – accepting wastes for treatment. At the commissioning stage, operators are required to demonstrate that the plant (including odour abatement system) 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 operations). As the installation is yet to receive waste for site operations, we have included pre-operational condition 2 (POC2) in the permit which requires the operator to submit a commissioning plan to the Environment Agency for approval.

The commissioning plan will 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 us in the event that actual emissions exceed expected emissions. Commissioning can only be undertaken in accordance with the approved commissioning plan. As the impact of odour and noise emissions were the main concerns during the determination, we expect the applicant to pay particular attention to this issue in the commissioning plan.

Improvement programme

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

Improvement condition 1 and 2 – biogas upgrading plant

The applicant submitted an 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_2S 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 Improvement condition 1 (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 A4. We have used this approach for biowaste treatment facilities proposing to install biogas upgrading plants across England.

Improvement condition 3 – Leak Detection & Repair Programme (LDAR)

We have also included improvement condition 3 (IC3) 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.

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

Reporting

We have specified reporting in the permit. We made these decisions in accordance with Waste Treatment BAT Conclusions. Please refer to Table S3.1 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. We only review a summary of the management system during determination. A full review of the management system is undertaken during compliance checks.

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.

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 **Devon and Somerset Fire and Rescue Service**

Brief summary of issues raised:

1. The proposal appears to be subject to the requirements of the Regulatory Reform (Fire Safety) Order 2005 where premises exist. This legislation makes provision for fire safety standards and places upon ‘The Responsible Person' a duty to comply with its requirements. A suitable and sufficient fire risk assessment must be carried out. It is noted from the Accident Management Plan that there is a fire and explosion risk. Where dangerous substances are liable to be present, the risk assessment must include consideration of the matters set out in Part 1 of Schedule 1 of the Fire Safety Order. Part 4 of Schedule 1 covers measures to be taken in respect of dangerous substances. Appropriate emergency procedures will need to be established

2. The proposal may also be subject to compliance with the functional requirements of The Building Regulations 2010. The Fire and Rescue Authority is a statutory consultee under The Building Regulations and will therefore review any fire strategy and plans submitted at the relevant consultation stage.

3. Whilst it is acknowledged that this is an environmental permit application, the Fire and Rescue Authority wish to take the opportunity to encourage that access and facilities for the fire service are considered. The applicant may need to consider the guidance set out in Approved Document B or other appropriate fire safety design standard.

Summary of actions taken

1. The legislation referred to comes under the planning permission which is determined by the local planning authority. The site has an accident management plan which includes the risk of fires and explosions and the management of such scenarios. The accident management plan is part of the site environmental management system (EMS) which is covered under permit condition 1.1.

2. As with point 1 above, the regulations referred comes under the planning permission.

3. The site has an accident management plan which addresses response to fire incidents on site.

Response received from **UK Health Security Agency**

Brief summary of issues raised:

The main emissions of potential concern from the proposed Facility are fugitive emissions to air from the generation and release of dust, including bioaerosols, and the release of volatile organic compounds and odour from waste storage.

Given the proximity of residential properties (40m) to the southern site boundary, the Environment Agency may wish to consider whether the relative measures proposed by the applicant are appropriate and protective of the nearby residents. UKHSA is otherwise satisfied that, due to the relatively inert nature of the energy crops, the control measures proposed by the applicant should ensure that there are no significant impacts on public health.

We note that the odour management report does include odour modelling, therefore the applicant is considering this pathway to the nearby residents. 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.

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

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.

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, including modelling as part of the application. We required further information from the applicant during the determination and we sent an information notice dated 01/10/2024 and 18/11/2024. 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 wet scrubber and carbon filter will be 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 and odour concentration 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 improvement condition 4 (IC4) which requires the operator to review abatement plant on site, in order to determine whether existing measures are 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.