

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for ReFood UK operated by ReFood UK Limited.

The permit number is EPR/AP3938EJ.

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:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Site description

The site is an anaerobic digestion plant, designed to process 150,000 tonnes per year of biodegradable and food waste including animal by-products (ABPR category 3), to create approximately 1200 m³/hour of biomethane which will be supplied to the gas supply network.

Suitable solid wastes are received and depacked (where necessary) using process water in the reception hall, and ground to less than 12 mm before being pumped to a holding tank. The site will also accept suitable liquid wastes via tanker.

The waste is pumped to a pasteurisation step which uses heat to sterilise the waste, and from there to a mixing tank which provides the feedstock for three digester tanks. The digesters are designed to operate just above mesophilic conditions (approximately 40°C). The majority of organic material is converted to biogas with a methane content of approx 63%. The remaining digestate is removed as a liquid and is intended to be recovered via landspreading off-site.

The biogas is cleaned using biological scrubbing, carbon filtration and a wash-water scrubbing process to remove hydrogen sulphide, volatile organic compounds and carbon dioxide. The biogas upgrade unit will analyse gas quality and can adjust the calorific value (CV) using addition of propane to ensure a consistent CV for the gas supply network. The gas is also odorised for safety. Biogas which cannot be supplied to the network for reasons of quality is diverted to a backup gas flare where it is burnt. The backup flare will also operate as necessary during site maintenance or in the event of a breakdown.

There are emissions to air from gas boilers providing heat for the site, the wash water scrubber, gas flare, carbon filters on reception and mixing tanks and emergency tank vents. The site uses surface water within the process, but there is provision for excess to be diverted to an off-site effluent treatment plant. There is also an emission of clean uncontaminated roof water to the River Mersey.

Assessment of Impact on Air Quality

The operator's assessment of the impact of air quality is set out in the Application. The assessment comprises:

- An H1 screening assessment of emissions to air from the operation of the Installation, covering the flare, boilers and gas upgrade process vent.
- Dispersion modelling of emissions to air from the operation of the emergency flare and boilers, which were not screened out as insignificant.

The assessment considered the emissions arising from one operating scenario with the boilers and flare operating at the same time. This was considered a worst-case scenario as the flare is anticipated at the Installation for 2% of operational hours (covering for planned maintenance and

breakdowns), as gas is intended to be sent to the gas network rather than burnt on site.

The assessment predicted the potential effects on local air quality from the Installation's stack emissions using the ADMS (version 5.0).

The pollutants considered in the assessment are those associated with site combustion activities, namely nitrogen dioxide, sulphur dioxide, carbon monoxide. Hydrogen sulphide and methane were considered for the process upgrade vent.

The dispersion model presented a complex scenario, with multiple structures in the vicinity of the emission sources (site tanks etc). In addition, our assessment found that the emission rates for all the pollutants were highly inconsistent with the other emission parameters provided (for example a NO_x emission from the boilers of 0.21 g/s corresponds to an emission concentration of 2200 mg/Nm³ (assuming a velocity of 1.9 m/s, the stack dimensions quoted and actual O₂ of 5.5%, moisture of 10.5%)).

We checked the model files and ran some simple screening checks. We considered that providing the emission rates were validated as within the values used for modelling and based on sensible emission data, the impacts can be considered to be insignificant at all human receptors. We queried these parameters with the applicant, asking them to explain how they derived their emission rates. They responded with revised figures confirming for the boilers that the NO_x emission rate should be 0.021 g/s and the exit velocity 7 m/s.

The revised data was considered acceptable, and we did not require additional modelling as the flare impacts dominated at receptors and the boiler impacts were substantially lower with the revised conditions. In spite of the errors, which make the original model's specific numerical results meaningless, we can conclude that the impacts are likely to be insignificant. No assessment at ecological receptors was needed due to the small scale of the plant.

Emissions to water

There are no discharges of process effluent from the site to surface water or groundwater. The majority of site surface water falling on site will be utilised in the AD process, and will ultimately leave the site in the digestate, which it is intended to be spread on land (not covered by this permit application).

There are two potential discharges to water from the site. One is a discharge of clean uncontaminated water from roofs, which is released to the Mersey. The other is to allow excess surface water to be transferred to an effluent treatment plant at an adjacent site when storage capacity is exceeded. This would be covered by an existing permitted release.

Fugitive emissions to air, land and water

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

All waste received at the installation is stored under cover within the site buildings. Further information on fugitive emissions to air is covered under the OMP section below.

Operational areas of the site will benefit from an impermeable concrete surface which will prevent the release of potentially polluting liquids to surface water and groundwater. Secondary containment is provided for all tanks containing liquids whose spillage could be harmful to the environment. This is achieved via a concrete perimeter bund containing the whole site. The bund is designed to hold a minimum of 110% of the capacity of the largest tank or 25% of total tank volume. Bund calculations were provided as part of a Schedule 5 Request Response. Pollution control measures have been installed by suitably qualified engineers and subject to construction quality assurance.

Site surface water is collected from the surfaced area and is intended to be re-used in the treatment process. An underground process water holding tank provides capacity to hold this on site.

A regular inspection and maintenance regime will be in place for site infrastructure. Tanks, bunds, above ground pipework, waste storage and processing areas, concrete surfacing, storage containers and the sealed drainage system will be inspected weekly.

Small quantities of raw materials including cleaning chemicals, odorant (added to biogas prior to grid entry), lubricants and micronutrients will be stored. All storage will be appropriately bunded (drip trays etc).

Operational Techniques

The operator has proposed their own Environmental Management system (EMS), but designed to address the requirements of BS EN ISO 14001:2004. The EMS manual was provided and appears to cover most of the expected aspects. The full EMS was not yet in place (we require the EMS to be in place prior to operations commencing), however the EMS implementation schedule presented ran into 2015. We requested clarification of this via Schedule 5 Notice and it was confirmed that the EMS for the site is now fully in place.

The operator has confirmed that waste pre-acceptance/acceptance and storage procedures are fully in line with Environment Agency Technical Guidance Note IPPC S5.06. These are contained in the Standard Operating Procedures (SOP) for the site. The treatment techniques are summarised in the Non-Technical Summary and the SOP. An Odour Management Plan (see below) and an Accident Management Plan have been produced for the site.

Odour Management Plan

The processes at the installation are considered inherently odorous and therefore we have required an odour management plan (OMP) prepared in accordance with our H4 guidance.

The OMP as submitted with the application was lacking detail in the following areas:

- Feedstock Inventory;
- Waste reception, storage, de-packaging operations within the reception building;
- Gas/Air treatment systems descriptions;
- Contingency arrangements;
- Passive odour management (cleanup etc);

A revised OMP was requested via Schedule 5 Notice and was received on 01/07/2014, a further revision was made and received (OMP Issue 01, dated 21/07/2014). Key OMP measures include the following:

For waste reception:

- All waste handling and initial treatment processing shall be undertaken in an enclosed reception building. Waste shall not be stored or processed external to the reception building.
- Roller shutter doors of the reception building will remain closed when waste is being deposited.
- Waste acceptance procedures ensure only permitted wastes are accepted.
- Waste is delivered in wheelie bins which will be loaded direct into one of two bunkers which mix and screw-feed waste to the depackaging machine. Each bunker has an electronically operated lid which is permanently shut except when receiving waste. Some waste on pallets will be delivered and transferred to the bunker hoppers manually. The depackaging machine will separate packaging and mix the waste with water (either site surface water or bulk liquid waste stream) to a solid:liquid ratio of 1:3 prior to transfer to the AD feed tank. The depackaging operation is fully enclosed.
- Emptied wheeled bins will be cleaned within the building in an enclosed automated bin-wash system. Waste water from bin washing is piped to the depackaging machine for reuse in that process.
- A positive pressure ionisation system is fitted to abate odours within the reception building (see separate consideration below).
- Bulk liquid tanker inputs will discharge to a enclosed steel tank fitted with level transmitter, separate overflow protection switch and which vents to carbon abatement.

For the AD Plant:

- Incoming waste from the reception process feeds to a 300 m³ enclosed concrete Pulp Storage Tank fitted with agitators, level transmitter, separate overflow protection switch and which vents to carbon abatement.
- Pasteurisation takes place within an enclosed 3-stage Pasteurisation Plant (3x35 m³ tanks each containing up to 30 tonnes of material) which operates as one filling, one pasteurising at 70°C for one hour

and one discharging. Temperature and time are the critical parameters and are continuously monitored and logged by the computerised central supervisory control and data acquisition (SCADA) system. The tanks are insulated stainless steel tanks fitted with mixers, thermocouples (2 per tank) and heat exchangers.

- The tanks discharge to a 600 m³ enclosed concrete Mixing Tank, which is fitted with low speed agitators, a level transmitter and separate overflow protection switch, and which vents to carbon abatement. This tank has up to five days storage capacity for the digestion vessels.
- 3 enclosed concrete Digesters of 3500 m³ capacity each. The minimum hydraulic retention time in the digester is 28 days. Gas produced is collected and piped to the Post Digester for storage. Digestate is pumped via sealed pipeline to storage. The digesters are fitted with overflow alarm, mechanical overpressure/underpressure alarms, ground sludge removal ports, stirrers, temperature probes and inspection ports. A computerised system controls key parameters to ensure the process is monitored within acceptable limits to ensure a proper reaction. Biogas quality (CH₄%, CO₂%, H₂S% and O₂%) is monitored continuously. Key parameters are set out in the SOP for the site.
- Post Digester sealed reinforced concrete storage tank fitted with a double membrane gas holder on top. Capacity is 4500 m³/4000 m³ sludge/gas. From storage, gas is passed to the Biogas Upgrade Unit for clean-up to grid-entry standard. Gas level is controlled by a level transmitter and there is a combined hydraulic under and overpressure safety device. Alarms are set to activate and shut down the process prior to the pressure safety device operating.
- Digestate removal from the Post Digester is undertaken via piped transfer to tanker.

The Biogas Upgrade Unit is a multistage process that prepares the biogas for entry to the gas network:

- Untreated biogas is split into two equal flows and passed to two Biological Scrubbing towers in which Hydrogen Sulphide (H₂S) is oxidised. Scrubber liquor containing the sulphur is returned to the process while the gas passes to the next stage. The towers are enclosed and constructed of plastic (PE) and stainless steel for corrosion resistance.
- Polishing system comprises a H₂S polishing scrubber using enclosed polypropylene vessel which uses reactive media to remove the residual H₂S, followed by duty/standby polypropylene vessels containing activated carbon to remove VOCs. In-line monitoring is carried out automatically to identify H₂S and VOC breakthrough. Should expected gas quality not be met, the unit can re-circulate the gas within the upgrade unit up to five times before shutting down and sending gas back to the gas holder. The H₂S polisher media needs replacement annually, whilst the VOC polisher carbon requires replacement approximately every 63 days - this can be done whilst diverting the gas stream to the standby unit.

- A Wash Water Plant is used to remove CO₂. This preferentially absorbs CO₂ using an elevated pressure system. Once separated the biogas (now predominantly CH₄) is passed to the Grid Entry Unit whilst the CO₂ is vented to atmosphere (release point A2).
- The Grid Entry Unit contains the automatic control, telemetry, analytical and metering equipment necessary to ensure compliance with the regulations governing supply of gas to the gas network. In the event that gas cannot be passed to the network the system directs the gas back to the gas holder. The system can dose the biogas with propane to ensure a consistent calorific value (CV), and also, at the final stage prior to entry to the network, adds an odorant chemical for safety.

Emergency Gas Flare:

- The site has an emergency flare with capacity to burn 120% of the expected gas generation capacity. This is expected to be utilised to prevent emissions of biogas in the event of poor biogas quality, or other emergency situations, and when required for maintenance. The operator expects the flare to operate for 2% of operational hours.

Positive Pressure Air Ionisation System

We have assessed the revised odour management plan submitted by the applicant and we consider that appropriate measures are in place in relation to containment, feedstock control, process monitoring, contingency planning and abatement (carbon filters). These are material considerations for assessment in an OMP in accordance with the Environment Agency Technical Guidance H4 – *Odour Management* and the Draft Anaerobic Digestion Technical Guidance (November 2013).

As abatement to control odours within the waste reception building (and also the small digestate pump room), the operator intends to use a positive pressure air ionisation system ('Terminour'). Fresh air is drawn by a fan into the system via an external louvers and is then filtered to remove particulates. The filtered air is then passed through a reaction chamber where it is ionised using UV light. The resulting ionised air is then distributed around the building through a system of vents.

The Environment Agency Technical Guidance H4 – *Odour Management* and the Draft Anaerobic Digestion Technical Guidance lists the use of plasma technology (ozone) and ultra violet (UV radiation) as "end of pipe" technology for odour abatement. However, the odour technical guide for EA officers (November 2013) states that the use of devices that produce ozone to treat ambient air within waste facilities are not an "appropriate measure" or BAT. Treatment of odours via UV radiation is an emerging technique, and similar ionisation systems have been installed at similar sites.

The applicant submitted a BAT options appraisal/justification for choosing the ionisation system to abate odour emissions in the reception building at this particular site. We have therefore included two improvement conditions in the permit that requires the operator to undertake olfactory monitoring to

demonstrate the performance of the proposed odour abatement system three months following the issue of the permit. In addition, the operator is required to undertake a review of the environmental performance of the proposed abatement system including any areas of improvement eight months after permit issue (see below).

The projected performance of the system should not divert attention away from well established and proven odour pollution control methods such as fresh feedstock, rigorous inventory controls and effective housekeeping. These are described above.

There are also contingency measures within the OMP. Should the process controls fail at any point, acceptance of waste into the site will cease and the odorous material taken off site for disposal at a suitably licensed waste management facility within 48 hours. Receipt of feedstock materials shall not recommence until a full review the OMP has been conducted and process controls (including critical limits) amended as required.

We consider that the OMP shows that measures are in place for controlling odour within the reception building, and combined with the permit conditions means there are sufficient controls in place for odours from the site.

Improvement Conditions

We have included three improvement conditions.

IC1 requires the operator to undertake olfactory monitoring to demonstrate the performance of the reception building odour management systems.

IC2 requires the operator to undertake monitoring of the Gas Process Upgrade Vent (A2) for total VOCs, H₂S and odour to confirm the performance of the upgrade process and emissions against predicted emissions.

IC3 Requires the operator to report on the environmental performance of the proposed odour abatement system for the reception building as installed against the design parameters set out in the application.

Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist, the application and supporting information and permit.

Aspect considered	Justification / Detail	Criteria met
Yes		
Consultation		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> Local Authority (Halton) Food Standards Authority Health And Safety Executive Public Health England Animal Health and Veterinary Laboratories Agency Cheshire Fire & Rescue Service National Grid 	✓
Responses to consultation and web publicising.	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>There were no responses from the web advertising.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
Operator		
Control of the facility	<p>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 EPR RGN 1 Understanding the meaning of operator.</p>	✓
The facility		
The regulated facility	<p>The extent/nature of the facilities taking place at the site required clarification. The decision on the facility was taken in accordance with RGN 2 Understanding the meaning of regulated facility.</p> <p>The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities (DAAs).</p> <ul style="list-style-type: none"> • S6.8 A(1)(c): Anaerobic digestion of animal and other biodegradable waste followed by treatment of biogas produced from the process; • DAA: Boiler; 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ul style="list-style-type: none"> • DAA: Heat treatment (pasteurization); • DAA: Emergency flare operation; • DAA: Raw material storage; • DAA: Gas storage; • DAA: Digestate storage; • DAA: Surface water collection and storage; • DAA: Biogas Upgrade Unit. 	
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Planning permission	We are satisfied that planning permission is in place and is appropriate for the relevant waste operation(s) applied for.	✓
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>A full assessment of the application and its potential to affect the site(s)/species/habitat has been carried out as part of the permitting process. We consider that the application will not affect the features of the site/species/habitat</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	✓
Environmental Risk Assessment and operating techniques		
EIA	In determining the application we have considered the	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>Environmental Statement.</p> <p>We have also considered the planning permission and the committee report approving it.</p> <p>The application differs from that set out in the EIA, as the operator originally proposed to use gas engines to generate electricity, rather than upgrade the biogas for supply to the gas network, which was the technique proposed in the permit application. The upgrade option has the following advantages:</p> <ul style="list-style-type: none"> • An improvement in expected local air quality as the gas engines would generate combustion emissions. • Likely reduced noise from site operations (biogas upgrade plant is quieter than proposed spark ignition engines). <p>We asked the operator via Schedule 5 Notice whether the changes were agreed with the Planning Authority (Halton Borough Council). They responded with a copy document <i>'Application to Regularise Minor Amendments to the layout of the ReFood AD facility off Desoto Road, Widnes'</i> dated June 2014.</p> <p>Halton Borough Council were consulted on the permit application (see Appendix B).</p>	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. These include Sector Guidance Note S5.06 – Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste; How to Comply with Your Environmental Permit and H4 – Odour Management. See Key Issues section.</p> <p>The proposed techniques/emission levels for priorities for control are in line with the benchmark levels contained in the TGN and we consider them to represent appropriate techniques for the facility.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
The permit conditions		
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <p>The waste types proposed are typical of biodegradable wastes taken at AD facilities. The operator's techniques specify that the digestate produced by the site will be to the Quality Protocol for Anaerobic Digestate, and the wastes selected are in accordance with those given in Appendix B of the Protocol.</p> <p>We have excluded the following wastes for the following reasons:</p> <p>02 03 02 is not covered by the AD protocol - operator has confirmed they do not need this code;</p> <p>15 01 04 appears to be typographical error for 15 01 05 - Composite packaging;</p> <p>19 02 99 was included to cover glycerol, but this is covered by 19 02 10;</p> <p>We made these decisions with respect to waste types in accordance with SGN5.06.</p>	✓
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>We have imposed improvement conditions to ensure that:</p> <ul style="list-style-type: none"> the appropriate measures are in place to prevent fugitive emissions. the appropriate measures are in place to prevent pollution from odour. <p>See Key Issues section.</p>	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	<p>We have decided that emission limits should be set for the parameters listed in the permit.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>The following substances have been identified as being emitted in significant quantities and ELVs have been set for those substances.</p> <p>Emergency Standby Flare: We have applied the limits specified in our landfill guidance for enclosed flares (NO_x 150 mg/m³, CO 50 mg/m³ and Total VOCs 10 mg/m³). The substances above have been set at the benchmark levels quoted in Guidance for monitoring enclosed landfill gas flares (LFTGN 05). The operator expects the flare to be in operation 2% of the year.</p> <p>We have not set any limits on the boilers (2 MWth combined) or the gas upgrade process vent, as emissions are considered insignificant.</p> <p>It is considered that the ELVs or technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.</p>	
Monitoring	<p>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.</p> <p>Emergency flare once twelve months after commissioning and then annually in the event the flare has operated more than 10% of a year. These monitoring requirements have been imposed in order to demonstrate compliance with the conditions of the permit for operations requiring the management of air emissions. We made these decisions in accordance with Guidance for monitoring enclosed landfill gas flares (LFTGN 05) which are considered the most appropriate TGN for this activity.</p> <p>Process monitoring requirements have been applied in accordance with our standard reporting requirements for AD plants.</p> <p>Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>	✓
Reporting	<p>We have specified reporting in the permit. Monitoring of the emergency gas flare is only required</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>annually (when use exceeds more than 10% of operational hours), reporting is therefore required annually. These reporting requirements are deemed sufficient and proportional for the installation.</p> <p>We made these decisions in accordance with our guidance How to Comply with your Environmental Permit, Sector Guidance Note S5.06 and our standard reporting requirements for AD plants.</p>	
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓
Technical competence	<p>The operation is not a specified waste management activity as it is permitted under S6.8 A(1)(c), but operations do consist of waste management. We asked the operator to justify what operator competence they had to ensure waste management would be in accordance with recognised standards.</p> <p>The operator responded that the Operations manager has attended and passed an EPOC and will be training towards a relevant CIWM Level. They also have over 5 years experience in the Waste Management Industry including Environmental Compliance and the Waste Water AD Industry. In addition the Site supervisor has 6 years in experience in Waste Water and AD.</p> <p>We consider this is appropriate for the operation.</p>	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.</p> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓

Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

Response received from
Public Health England
Brief summary of issues raised
<p>We recommend that any Environmental Permit issued for this site should contain conditions to ensure the following potential emissions do not impact on public health: fugitive dust emissions from vehicle movements, particulates during waste processing and odour arising from all stages of the process. We do acknowledge, and it is reassuring to see, the intention is to carry out the majority of these activities indoors which would minimise any impact on public health. However, given these processes are inherently odorous we would support any contingency planning in case operations do happen to give rise to emissions with the potential to affect public health.</p> <p>It is recommended further consideration is given for the potential of waste to attract an accumulation of birds, vermin and insects on site. Appropriate control measures should be in place to monitor and prevent this occurring.</p> <p>Based solely on the process and other information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from this proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.</p>
Summary of actions taken or show how this has been covered
<p>The permit contains conditions to ensure the installation does not cause any significant impact from dust emissions, odour and pests. As an inherently odorous process, an odour management plan is in place for the site, which includes contingency actions, and monitoring procedures.</p> <p>The initial receipt of waste could potentially be dusty. The site surface is fully concreted, minimising fugitive dust from vehicle movements. All waste receipt/processing operations take place indoors. The AD process is inherently wet, as is the outgoing liquid digestate. We consider the overall particulate risk to be low. A daily site inspection will ensure site surfaces are clean. All vehicles entering the reception building will be washed down prior to leaving. Site roads/public highway and entrance will be cleaned by mechanical sweeper when required.</p> <p>Access to the waste is restricted once waste is within the sealed AD process, so the risk of attracting pests, vermin, birds etc is low. Procedures for waste reception are in place to prevent waste accumulations within the reception building. Risk of vermin on all site areas is controlled by litter picking; pest control by vermin control contractor and keeping the reception building closed.</p> <p>Procedures for waste reception are in place to prevent odours within the reception building, including clean down and unloading waste with the doors</p>

closed. Liquid wastes are received by tanker direct to a tank with carbon abatement. The biogas upgrade plant is designed to remove odorous contaminants from the biogas via scrubbing and carbon abatement. A gas flare is available to burn gas in the event of maintenance, breakdowns or poor gas quality.

Response received from

Halton Borough council

Brief summary of issues raised

Recommend that any permit should contain condition to ensure the following potential emissions do not impact on public health: fugitive dust emissions from vehicle movements, particulates during waste processing and odour arising from all stages of the process.

Also recommend further consideration is given for the potential of waste on site to attract birds vermin and insects.

Summary of actions taken or show how this has been covered

See summary of action for the PHE response above, which covers the same risks - dust/particulate, odour and vermin.