

Permitting decisions

Variation

We have decided to grant the variation for Envar Composting Facility operated by Envar Composting Limited.

The variation number is [EPR/GP3930DF/V003](#)

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 checklist to show how all relevant factors have been taken into account.

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

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

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

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

Description of the changes introduced by the variation

The Envar Composting Facility operated by Envar Composting Limited, is currently permitted to treat up to 105,000 tonnes of mixed food and green waste per annum to PAS 100 Quality Protocol (QP) standard. The main processes include sanitisation and stabilisation of waste in an in-vessel system followed by open windrow maturation.

This variation authorises the following:

- a) the addition of a new in-vessel composting activity to produce compost like-output (CLO).
- b) inclusion of an external stabilisation phase to form part of the already existing PAS 100 QP compost production process.
- c) drying of waste materials with high moisture content to create added value materials for various markets (animal bedding, agricultural benefit, industrial use and land restoration). Two newly installed small scale biomass boilers, each of a thermal input of 0.9 MWth powered by Grade A wood fuel along with two dryers will provide heat for the drying process.

- d) addition of a new waste treatment and transfer station for manual sorting, shredding, bulking and screening of waste.
- e) increase in throughput from 105,000 to 200,000 tonnes per annum, distributed as follows:
 - 135,000 tonnes for both the PAS 100 QP compost production and the compost-like output (CLO).
 - 45,000 tonnes for the drying process.
 - 20,000 tonnes for treatment and transfer waste operation.

Key issues of the decision

In reaching our decision to approve this variation, the following key issues have been considered:

- Impact of emissions on air quality
- Bioaerosols monitoring
- Noise impact assessment
- Odour Management Plan (OMP)
- Fire Prevention Plan (FPP)
- Improvement programme requirements

Assessment of the impact of emissions on air quality

The applicant's assessment of the impact of site activities on air quality is set out in the Application. The assessment comprises the dispersion modelling of emissions to air from the operation of two biomass boilers.

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stack and its impact on local air quality. These assessments predict the potential effects on local air quality from the Installation's stack emissions using the ADMS (version 5) dispersion model, which is a commonly used computer model for regulatory dispersion modelling.

The applicant obtained meteorological data from assimilation and short term forecast fields of the Numerical Weather Prediction (NWP) system known as the Global Forecast System (GFS). The GFS is a spectral model and data are archived at a horizontal resolution of 0.25 degrees, which is approximately 25 km over the UK (formerly 0.5 degrees, or approximately 50 km). The GFS resolution adequately captures major topographical features and the broad-scale characteristics of the weather over the UK. Smaller scale topographical features may be included in the dispersion modelling by using the flow field module of ADMS (FLOWSTAR).

The applicant justified the use of NWP data rather than traditional meteorological records on the basis of the following:

- Calm periods in traditional records may be over represented. This is because the instrumentation used may not record wind speed below approximately 0.5 m/s and start up wind speeds may be greater than 1.0 m/s. In NWP data, the wind speed is continuous down to 0.0 m/s, allowing the calms module of ADMS to function correctly.
- Traditional records may include very local deviations from the broad-scale wind flow that would not necessarily be representative of the site being modelled; these deviations are difficult to identify and are removed from a meteorological record. Conversely, local effects at the site being modelled are relatively easy to impose on the broad-scale flow and provided horizontal resolution is not too great, the meteorological records from NWP data may be expected to represent well the broad-scale flow.

- Information on the state of the atmosphere above ground level which would otherwise be estimated by the meteorological pre-processor may be included explicitly.

The applicant's assessment has assumed "worse-case" scenario for conversion rates for NO_x using 35% in relation to short term impacts and 70% in relation to long term impacts. The impact of the terrain surrounding the site and buildings upon plume dispersion was considered in the dispersion modelling. As well as calculating the grid maximum ground level concentration, the applicant has modelled the concentration of key pollutants at a number of sensitive receptors within the surrounding area.

The pollutants considered in the assessment are those associated with combustion activities, namely nitrogen oxides, particulate matter, sulphur dioxide and carbon monoxide. We are satisfied that there is no need to consider any other pollutants as the fuel is Grade A wood.

Impact on human receptors from the operation of the biomass boilers

The applicant's modelling predictions indicate the predicted maximum ground level exposure to pollutants in ambient air. We have made our own simple verification of the percentage process contribution and predicted environmental concentration submitted by the applicant. Our figures may be very slightly different to those shown in the Application. However, any such minor discrepancies do not materially impact on our conclusions.

Table 1 shows the maximum modelled concentration of nitrogen oxides and particulate matter from the operation of the biomass boilers at the most sensitive human receptor (Receptor 1, grid ref: 533645, 275264). We have not reported emissions of sulphur dioxide and carbon monoxide in this document as these were shown to be insignificant. In addition, we have not reported on the grid maximum process contribution as this is located within the installation boundary.

Table 1 – Maximum modelled concentrations of nitrogen oxides and particulate matter at the most sensitive human receptor (Receptor 1)

Pollutant	EQS / EAL	Back- ground	Process Contribution (PC)		Predicted Environmental Concentration (PEC)	
	µg/m ³	µg/m ³	µg/m ³	% of ES	µg/m ³	% of ES
NO ₂ (annual)	40	9.8	0.9	2.3	10.8	27.0
NO ₂ (1-hour)	200	[1]	10.7	5.4	[1]	[1]
PM ₁₀ (annual)	40	[1]	0.3	0.75	[1]	[1]
PM ₁₀ (1-hour)	50	[1]	3.4	6.8	[1]	[1]
Note [1] – Where the PC is less than 1% of the benchmark for a long term measurement or less than 10% for a short term measurement, the impact is considered to be insignificant. In these cases, examination of the PEC (PC + background concentration) is not required.						

From the table above, particulate matter emissions screen out as insignificant in that the process contribution (PC) is <1% of the long term ES and <10% of the short term ES.

Emissions of nitrogen dioxide cannot be screened out as insignificant, in that the PC exceeds 1% of the long term ES (2.3%). Although nitrogen dioxide did not screen out as insignificant, we consider that it is unlikely that the emissions will give rise to significant pollution in that the predicted environmental concentration (PEC) is less than 100% (taking expected modelling uncertainties into account) of both the long term and short term ES.

We carried out additional checks using the Environment Agency's modelling screening tool. The results showed low to medium risk for nitrogen dioxide emissions based on a 9.7-metre stack height. The

conclusion is that there will be no significant impact to human health caused by the operation of the biomass boilers. We have carefully scrutinised the applicant's proposals to ensure that they are applying the Best Available Techniques (BAT) to prevent and minimise emissions of all pollutants released from the facility into the environment.

Ecological assessment

In accordance with the Environment Agency's Air Quality Technical Advisory Guidance 14, no habitats assessment is required due to the small size (less than 5 MW) of the boilers. Therefore this proposal is considered acceptable and no further habitat assessment was carried out.

Summary

Based on results of the air dispersion modelling report submitted by the operator and reviewed by us, we consider that there will be no significant effect on both habitats and human health receptors around the area as a result of emissions from the biomass boilers.

Bioaerosols monitoring

The new M9 technical guidance note for environmental monitoring of bioaerosols at regulated facilities has been published to provide a standardised approach for monitoring bioaerosols. It is applicable to facilities that have both ambient and point source emissions. It has been developed to replace the 2009 standardised protocol for monitoring ambient bioaerosols at open compost facilities, which we developed with the Association for Organics Recycling (now known as the Organics Recycling Group).

As the number of enclosed biowaste facilities with point source emissions from stacks or biofilters has increased from 2009, the new M9 provides information on the monitoring of bioaerosols from stacks, open biofilters and in ambient air; its focus being on the following bioaerosols components:

- Aspergillus fumigatus
- Total mesophilic bacteria

Unlike the previous standardised protocol guidance, sampling and monitoring of gram negative bacteria is not a component of the M9 technical guidance.

For this variation, we have removed gram negative bacteria from table S3.4 in order to conform to monitoring standards set by the new M9 technical guidance. The operator is now only required to monitor for total bacteria and Aspergillus fumigatus. The emission threshold limits of 1000 colony forming units (cfu) for total bacteria and 500 cfu for Aspergillus fumigatus are retained as part of table S3.4.

Considering that the facility has an open source biofilter and the site boundary is within 240 metres of the nearest sensitive receptor (the Raptor Foundation), the operator also provided a site specific bioaerosols risk assessment (SSBRA) in support of the application. We consider that it is not appropriate to set monitoring requirements for the biofilters as the distance between the biofilter and the nearest sensitive receptor is more than 300 metres.

Noise impact assessment

The operator submitted a noise impact assessment for the proposed drying plant and other activities on site that could give rise to noise pollution at sensitive receptors close to the site. The assessment also considered the operation of a green waste shredder on the concrete pad adjacent to the drying plant. The local receptors considered include the Rectory Farm, Bridge Farm, Gypsy site and heathfields at varying distances of 300 to 700 metres from the site.

In line with our noise impact assessment information requirements, the noise assessment report included the following:

- a map showing the site and surrounding area including sensitive receptors
- description of site location and layout, noise sources and receptors

- proposed noise mitigation measures

Using the BS 4142 guidance for the rating and assessment of noise of an industrial or commercial nature, the report concluded that:

- The operation of the new drying plant would result in low levels of noise at surrounding properties, which would not result in any significant adverse effects.
- While there are no adverse noise effects from the drying process, there is an anticipated increase in noise levels by 5db as a result of the operation of the green waste shredder on the concrete pad adjacent to the drying plant with the impact being on the Gypsy/Travellers site.

The applicant's noise assessment was reviewed by the Environment Agency's technical specialists for modelling, who agreed with the assessment's conclusions. We considered that all impacts will be low with the exception of the Gypsy/Travellers site during the main part of the day. In addition, the external shredder is the dominant noise source on site and its operation for green waste shredding would have an impact on the Gypsy/Travellers site. We noted that impact could be higher than predicted by the applicant although still below significant adverse. We advised that a noise mitigation programme should target the external shredder operation as a priority.

Action taken

The operator has confirmed that the green waste shredding operation proposed will no longer be used on site leaving all other activities that pose low noise risk to the local receptors. As a result of this, we have accepted the operator's noise impact assessment conclusion that the new activities on site as a result of this variation pose no adverse or significant noise risk to the receptors.

Odour Management Plan (OMP)

The operator submitted an OMP in support of this variation. We did not consider the first version satisfactory for the following reasons:

- the OMP did not assess the risks associated with the increased throughput and addition of new operations, and the impact of these new operations on the adequacy of existing odour control measures.
- a comprehensive inventory of odour sources on site was not detailed and there was little information on maximum waste storage times and capacities within different areas of the site.
- the suitability of the existing odour abatement system to handle potentially different gases due to the additional waste types was not addressed and it was unclear what odour abatement the operator had in place and what was being proposed to mitigate potential odour emissions introduced by the new processes
- the operator's consideration of contingency measures on site was not exhaustive.
- the waste codes presented in the OMP were not consistent with what the operator presented in separate parts of the application.

In response to two separate information notices dated 2 August 2017 and 27 September 2017, the operator provided more detailed information on relevant aspects of the OMP with full consideration for both existing activities and those introduced as a result of this variation.

- a) CLO production: The operator has proposed a new stand-alone system for the production of compost-like output. Although separated from the existing system, this will similarly comprise of a water-based scrubber and a wood media wetted biofilter. This compost ventilation system utilises forced recirculation of process air. The recirculated air design controls and minimises the air released to exhaust. The scrubber design shall be a tower (vertical duct component) with spray jet

water injection and drainage to specified sealed collection sump. Air contact time shall be a minimum of 30 seconds within the duplex 40 m³ tower system. The dilution factor of the CLO IVC exhaust air shall be 1:15 - with fresher air, which is beneficial as this provides buffering of gases and decreases peak loads to the water-based scrubber and to the microbiology of the biofilter.

The primary operating and control parameters for CLO Composting shall include a gas sensing system that samples air quality from the recirculation duct from each vessel, a computer control system that adjusts ventilation fan speeds, air-pressure and heating, and air ventilation control valves that control air quality including oxygen content, temperature, CO₂ content, process air temperature and percentage air exhausted to the biofilters. The pH can be controlled by adjustment to the initial mix of material and also by adjustment of the oxygen balance, temperature and overall rate of composting using the above controls.

The operator's risk assessment indicated that with increased CLO material processing, there is a potential for additional pressure on the system. In consideration of this, the operator will provide facilities for the extended treatment of exhaust air from the CLO Composting vessels. This will include additional air quality monitoring both pre and post air treatment system, closer attention to the water quality within the scrubber; closer attention to the media within the biofiltration system, its condition, rate of deterioration, compositional or quality change under extended use, including pH, trace element accumulation, biological and chemical composition.

- b) Drying process: the drying building will benefit from an air extraction system channelled to the biofiltration system for odour control. Additionally, we have restricted the acceptable wastes for this process to those whose odour potential have been risk-assessed by the operator. We have accepted 10 waste codes that are wood and paper based having considered that they pose no significant odour risk and are appropriate for the drying process.
- c) Waste treatment and transfer: the waste treatment and transfer process will be within a fully enclosed building with a localised air extraction system that passes air through the existing biofiltration system for odour control.

The final submission of the OMP has provided a full inventory of all possible sources of odour on site. An appropriate risk assessment has been carried out by the operator for the new activities. Risks associated with fugitive emissions and increase in annual throughput have been considered. Contingency measures are in place to rectify failures under abnormal working conditions. In addition to the abatement that is already in place for the PAS 100 QP compost production process, the operator has proposed additional abatement and containment measures, which we consider acceptable for the proposed activities. Maximum storage times and tonnages for each of the activities have also been detailed. Based on the operator's quick turnaround time of wastes, existing and proposed abatement, contingency measures for both normal and abnormal working conditions and the location of this facility in relation to sensitive receptors, we consider that odour emissions from this facility is unlikely to have a significant impact on people and the environment and have accepted the submitted OMP.

Fire Prevention Plan (FPP)

The measures set out in the Fire prevention plans: environmental permits guidance (November 2016) (the guidance on gov.uk) have been designed to meet the following three objectives:

- minimise the likelihood of a fire happening;
- aim for a fire to be extinguished within 4 hours; and
- minimise the spread of fire within the site and to neighbouring sites.

We consider, that if an operator submits a fire prevention plan (FPP) that includes the measures set out in the guidance, we are likely to approve that FPP. We identified the potential risk of fire from the installation due to the treatment and storage of combustible non-hazardous wastes on site (green waste and compost). We have assessed the operator's FPP and are satisfied that the appropriate measures are in place for non-waste materials, managing common causes of fire, preventing self-combustion, managing waste piles, containment of fire waters, firewalls and bays, and contingency planning during and after an incident. We consider these measures to be in line with the guidance.

This facility does not have any installed automated method of fire detection within the treatment and transfer and drying buildings. These buildings also do not have automated suppression systems in line with the requirements of our FPP guidance. For this reason, the operator proposed alternative measures to ensure that the objectives of our guidance are met.

Treatment and transfer station and drying operation.

Waste storage in the treatment and transfer building is shown in Appendix 5 of the updated Fire Prevention Plan. Raw wood or other approved wastes will be tipped in the area marked Pile 2 with dimensions of 10 x 14 x 3 metres (Length x Width x Height) hence a maximum 420 m³. This volume will be processed within a maximum of 5 days. The stated volume of waste is to be processed in the operational area shown on Appendix 5, the processed wood or other wastes will then be stored within the area marked Pile 1 (same dimensions as for Pile 2) for a maximum of 7 days before being transferred off site.

The waste drying area is represented in Appendix 2 of the updated Fire Prevention Plan. There are 2 open ended bays, with dimensions of 10 x 9 x 4 metres (L x W x H) constructed from A1 fire resistant legio blocks. The dried waste is stacked in such a way that it fits in with an area of 8 x 7 metres and a maximum height of 4 metres. The maximum total volume of waste in each bay will be 224 m³. This end 'product'/waste will be dispatched off to market on a daily basis and each bay will be completely cleared at least once a week. The operator's alternative proposal for fire detection and suppression within these buildings include:

- a) Temperature probes - Using temperature probes, night staff will be required (as a routine) to monitor and record temperatures of all waste piles within the transfer and treatment building and the biomass dryer area twice during the period 10 pm to 5 am daily. Night staff will also carry out regular patrols of the site. Using the probes, several readings will be taken from each pile to ensure that a genuine temperature is recorded across the waste mass. This measure is more likely to detect any hot spots in the pile. Waste in this area is continually being treated on a daily basis between 5 am and 7 pm, 7 days a week. There is emphasis on out of hours monitoring as the assumption is that with waste being continually treated during the working day, the risk of fire outbreak is minimal and if there is a fire outbreak, detection and subsequent suppression are more likely. In the event of any individual pile inside a building being unprocessed during the working day, the temperature in that pile will be taken by 7 pm that day and recorded on the temperature monitoring forms. The operator reports that it is not possible to probe down to a depth of 3.5 m but as heat rises and with the low trigger temperatures set, fire at the base of any pile would be detected. The record sheets will show 4 or 5 points on each pile (depending on pile size) where temperatures are recorded.
- b) Trigger temperatures - Trigger temperatures have been set by the operator above which site operatives are expected to take action. All night staff will be trained in terms of requirements to monitor and record temperatures in waste piles and what to do in the event of a fire breaking out at the site. These trigger temperatures have been set for the various operations which mean that if the temperature recorded is close or exceeds a specific threshold temperature, various actions will take place. If this happens during normal working hours, the site manager will be informed and will decide what action is required. At the very minimum this will be an increase in monitoring frequency. If temperature continues to increase, then urgent action will be initiated to prevent potential self-combustion. The proposed trigger temperatures are represented in table 2.

Table 2 – trigger temperatures for waste piles in the different waste storage areas

Building/ waste type	Treatment	Dryer feedstock	Dried waste	Biomass feedstock	Action
Trigger Temperature Degrees C	40	30	55	30	Increase monitoring to every hour

- c) Fire suppression - The site has a fixed sprinkler/spray jet system in place for pile 2 in the treatment and transfer station. This can be activated by opening a valve at the front of the building. The site also has pressurised water in all buildings and all areas of combustible waste storage are easy to reach from the building entrances using fire hose reels which are available in each building area. In the event of a fire breaking out in any waste pile in a building or indeed anywhere on site, there are sufficient fire hoses plus the fixed sprinkler to tackle a fire quickly and safely prior to the arrival of the Fire and Rescue Services (FRS) and ideally to have it under control before they arrive. Both the drying area and the waste treatment and transfer station are accessible to the Fire Service making fire-fighting from outside the buildings easy. The treatment and transfer building has one roller shutter door and one open ended side while the drying storage area is open ended.

While the measures in place by the operator for fire detection and suppression deviate from our guidance, we agree that constant monitoring using the probes as proposed is sufficient as any temperature increase will most likely be detected. The trigger temperatures proposed are reasonably low which reduces the risk of fire. Upon detection of fire or an increased risk of self-combustion due to increase in temperature, the operator will suppress the fire using the pressurised water mains available in all buildings. Based on the above, we accept the measures proposed and consider them appropriate for the scale and nature of the activities on site.

In looking at areas of combustible waste storage on site that require fire detection and suppression systems, we did not consider the screening shed, organics reception shed and composting areas/activities for the following reasons:

- a) The composting activity from the in-vessel area to the external stabilisation area is actively managed and therefore is exempt from the requirements of our FPP guidance. Storage after the screening process has also not been considered because at this stage, the compost is considered a PAS 100 QP product and no longer waste therefore falling outside the remit of the FPP guidance.
- b) The organics reception area has also not been considered. This is because waste within this area is maintained at a moisture level of above 50%. We have inserted this limit in table S2.1 and not considered this area further because with this moisture content, it would be difficult for the waste to catch fire.
- c) The screening shed is an open sided building that will always have 2 piles of waste within, one that has already been screened and as such no longer waste (PAS 100 QP) and the actively managed pile that is brought directly from the external stabilisation area to be treated daily. Additionally, this shed has a dedicated fire suppression system for suppression of dust related fires.

The FPP has identified common causes of fire in line with our guidance and provided appropriate measures to reduce the associated risks. The 'first in first out' principle is utilized on site for proper stock rotation and the operator has demonstrated how this principle works for the facility. There is a large quarantine area on site with the capacity to hold at least 50% of the volume of the largest pile. Separation distances and pile sizes are compliant with the requirements of our guidance and, the site has sufficient water supply for firefighting.

We consider that these methods and the proposed alternatives meet the objectives of the FPP guidance and are considered to be appropriate measures.

Improvement programme requirements

As part of a previous variation (EPR/AP3662SX/V006), the operator was required to complete the following 3 improvement programme requirements (IC) within 3 months of variation issue:

- a) IC1 required the operator to submit a report for approval and subsequent implementation, written procedures for the prevention of fire and minimisation of the risk of pollution from fires, which are in compliance with the Environment Agency Fire Prevention Guidance (November, 2016).
- b) IC2 was set in order for the operator to produce and submit a report for approval which demonstrates compliance with sections 2.1.4 and 2.1.8 of the Sector Guidance Note IPPC S5.06 – Guidance for the Treatment of Hazardous and Non- Hazardous Waste, to cover screening operations on site.
- c) IC3 was set in order for the operator to justify how the permitted operations (including storage of waste in the open or in closed buildings) represent BAT in line with the Sector Guidance Note IPPC S5.06 – Guidance for the Treatment of Hazardous and Non- Hazardous Waste.

IC2 and IC3 have been completed. We agreed that a full assessment of the FPP would be made on submission of a permit variation application. As the operator has submitted an acceptable Fire Prevention Plan in this variation application, we also consider IC1 to be completed. Improvement condition 1 to 3 have been marked as completed in the consolidated variation notice.

Odour Management Improvement Programme

While we accept the operator's odour abatement proposal for the CLO process, we have considered the need for a validation of data from the proposed exhaust gas monitoring to ensure that all potentially odorous gases are adequately accounted for and controlled. In light of this, we have added an improvement condition (IC4) to the variation notice.

Decision checklist

Aspect considered	Decision
Receipt of application	
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/Engagement	
Consultation substantial change installations or mining waste	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website. We consulted the following organisations:</p> <ul style="list-style-type: none"> • Fire and Rescue Service • Director of Public Health/PHE • Foods Standards Agency • Health and Safety Executive • Local Authority – Environmental Health • Local Authority – Planning <p>The comments and our responses are summarised in the consultation section.</p>
The facility	
The regulated facility	<p>We considered the extent and nature of the facility/facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation' and Appendix 1 of RGN 2 'Interpretation of Schedule 1'.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>

Aspect considered	Decision
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory. Sector specific issues regarding noise, odour and bioaerosols are addressed in the key issues section.</p>
Operating techniques	
General operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Operating techniques for emissions that do not screen out as insignificant	Emissions of nitrogen oxides (NO _x) cannot be screened out as insignificant. We have assessed whether the proposed techniques are BAT (see Key Issues section). The proposed techniques/ emission levels for NO _x emissions that do not screen out as insignificant are in line with the techniques and benchmark levels contained in the technical guidance and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and ELVs deliver compliance with BAT-AELs.
Operating techniques for emissions that screen out as insignificant	Emissions of sulphur dioxide, carbon monoxide and PM ₁₀ have been screened out as insignificant, and so we agree that the applicant's proposed technique is BAT for the installation.
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>While we consider that the odour management plan is satisfactory, we have also inserted an improvement condition (IC4) for CLO gas monitoring. See key issues section</p>
Noise management	We have reviewed the noise impact assessment submitted by the operator in support of this application and found it satisfactory.
Fire prevention plan	<p>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.</p> <p>However, we have set pre-operational conditions to allow the operator to put in place appropriate detection and suppression systems. See key issues section</p>
Permit conditions	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
Raw materials	As a result of this variation, we have specified that the operator can only use Grade A waste wood as fuel for the biomass boilers.
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

Aspect considered	Decision
	<p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> • they are suitable for the proposed activities • the proposed infrastructure is appropriate; and • the environmental risk assessment is acceptable. <p>We made these decisions with respect to waste types in accordance with our Technical Guidance Note WM3 – <i>Waste Classification</i>.</p>
Pre-operational conditions	Based on the information in the application, we consider that we need to impose pre-operational conditions. See key issues section.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. See key issues section .
Emission limits	We have deleted the gram-negative bacteria emission limits from the bioaerosols monitoring table S3.4. Further information is provided in the key issues section.
Monitoring	<p>We have added a monitoring requirement for emissions to air in table S3.1. The operator is required to monitor nitrogen oxides emissions from the two boiler stacks annually. We will review the need for monitoring two years following the issue of this variation notice.</p> <p>We have also updated the relevant monitoring tables in accordance with the new M9 technical guidance note for measurement of bioaerosols at regulated facilities.</p> <p>The above will cover both total bacteria and <i>Aspergillus fumigatus</i>. We have deleted the requirement for monitoring of gram negative bacteria in accordance with the new guidance.</p> <p>Based on the information in the application we are fully satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>
Reporting	We have not deleted reporting of monitoring data as a result of this variation. The operator is still required to report monitoring data for bioaerosols – ambient sources. We have also added reporting requirements for emissions to air from the two new biomass stacks.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Technical competence	Technical competence is required for activities permitted. The operator is a member of an agreed scheme.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of</p>

Aspect considered	Decision
	<p>regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.</p>

Consultation

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

Responses from organisations listed in the consultation section

Response received from
Public Health England
Brief summary of issues raised
<p>We recommend that any Environmental Permit issued for this site should contain conditions to ensure that the following potential emissions do not impact upon public health:</p> <ul style="list-style-type: none">• Emissions to air from point sources on site including nitrogen dioxide (NO₂), particulate matter less than 10µm (PM10), sulphur dioxide (SO₂) and carbon monoxide (CO);• Fugitive emissions of bioaerosols, particulate matter/ dust from activities on site; and• Odour arising from all operations on site. <p>Based solely on the 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 has a condition to ensure that the risk of odour pollution is managed appropriately. The permit includes a bioaerosol management condition and monitoring table with appropriate limits for <i>Aspergillus fumigatus</i> and total bacteria for bioaerosol control. We have also assessed the risk from the emission of pollutants nitrogen dioxide (NO₂), sulphur dioxide (SO₂), particulate matter (PM10) and carbon dioxide, and consider them insignificant.</p>