Environment Agency permitting decisions

Variation

We have decided to issue the variation for Ducknest Farm Composting Facility operated by Inztec Composting Ltd.

The variation number is EPR/NP3335EW/V002.

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 responses

Description of the changes introduced by the Variation

This is a Substantial Variation.

The site is comprised of an in-vessel composting facility. This variation authorises the following changes to the permit:

- Removal of the 10 tonne per day limit for accepting animal waste. This means the permit has changed from a standard rules to a bespoke permit carrying out a Section 6.8 A(1) (c) activity.
- Addition of novel waste code (04 02 20) which is not specified in our standard rules sets for composting.
- Addition of waste codes from the Compost Quality Protocol (EWC 02 01 01 – sludges from washing and cleaning) and 20 03 01 (mixed municipal waste – separately collected biodegradable wastes only)

Key issues of the decision

Removal of the 10 tonne per day limit on animal waste

As part of this variation, the applicant requested that the 10 tonnes per day limit on animal waste be removed. Given the quantities of animal by-product (ABP) waste received from the rendering site for treatment (15,000 tonnes per annum of ABP), albeit mixing with non-animal waste at the composting site, we consider that a Section 6.8 A(1) (c) activity is the "most apt" activity for this site. A substantial variation applies as a new listed activity (S6.8 A(1) (c)) is being added.

This is explained in Defra guidance:

'Substantial changes include any change in operation which in itself meets the thresholds, if any, set out in Schedule 1, Part 2'

DEFRA Industrial emissions Directive EPR Guidance on Part A installations February 2013.

We have added activity 'S6.8 A(1) (c) Disposing of or recycling of animal carcasses or animal waste, other than by rendering or by incineration at a plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal wastes or both in aggregate' to table S1.1 in the permit. We have removed activity reference 'S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment' which previously covered the composting activity.

Addition of novel waste code

When Applicants wish to add waste codes to biological treatment activities which are not listed in any of our standard rules permits for the relevant activity, they need to provide evidence that the waste is suitable for this treatment and will not increase the environmental risk from any use of the process output. We have produced a framework for applicants to follow to justify the waste is suitable 'Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment
Framework Guidance Note' dated July 2013.

The applicant has requested that a novel waste code is included in the permit. This is waste effluent generated from the washing of sheep fleeces. The waste fits the description of 04 02 (wastes from the textile industry) under the waste code 04 02 20 – "sludges from on-site effluent treatment other than those mentioned in 04 02 19". In order for this waste code to be accepted, the applicant has provided waste analyses and supporting information which meets the requirements of the Framework Guidance Note.

The following questions are listed within the Framework Guidance Note and need to be answered fully by the applicant in order for the waste to be accepted. We have considered the applicant's response below each section.

1. **Is the waste European Waste Catalogue coding and description listed within any relevant standard rules permit?**

    - Yes, the waste code is included in the European Waste Catalogue and is in the SR 2010 No4 standard rules permit which covers spreading waste to land to confer agricultural benefit.

2. **Is the waste stream classified as hazardous?**

    - No, the waste stream is not classified as hazardous.

3. **Has the applicant demonstrated that the hazardous properties of the waste will be treated by the proposed biological system, and provided details of any pre treatment or control measures required?**

    - Not applicable to this application.

4. **Is the bespoke waste stream well characterised?**

    - The applicant has provided a description of the process producing the waste.

      The waste arises from the scouring of sheep fleeces: it comprises of washwater which is then treated with sulphuric acid and flocculent before being centrifuged. This produces a sludge which is then treated with magnesium hydroxide to adjust the pH, creating a final sludge waste stream referred to as "shoddy".

      The applicant has provided two separate sample results from separate batches of the waste. The Applicant has specified that the material is a by-product of a single repeatable production process therefore the samples are taken to be representative. However, no detail was given on the sampling strategy for these, and why the determinants shown were tested for. The applicant has stated that a flocculant has been used in the waste treatment process. The flocculant is added in variable but low concentrations (100-200 ppm) depending on the type/cleanliness of the wool they are processing. Due to the low concentrations we do not have any concerns in relation to its addition to the waste.

5. **Are the characterisation data on the bespoke waste stream outside of general inhibition values?**

    - The waste is outside the general inhibition values for moisture, pH, the carbon to nitrogen ratio, nickel, chloride and arsenic.

6. **Has the applicant provided an operational plan demonstrating how the process will accept and process the bespoke waste with characteristics outside the general inhibition values?**

    - No, the applicant has noted that the waste is outside the optimum values detailed in the Framework Guidance Note. The applicant has detailed that the waste will be blended with other wastes, predominantly green wastes.

7. **Do the characterisation data on the waste stream contain specific substances that may inhibit the process?**

    - The waste is outside reported specific inhibitor values for ammonia nitrogen, copper, zinc, arsenic, chloride and nickel.
    - We have made the decision to allow this based on the fact that the 04 02 20 waste code can be spread to land under a Standard Rules 2010 No4 permit. Previous applications with similar waste characterisation have been approved in the past for landspreading deployments.

8. **Has the applicant provided an operational plan demonstrating how the process will accept and process the bespoke waste with characteristics outside the specific inhibition values?**

    - The applicant has explained how the waste will be continually monitored to deal with any issues arising from the high ammonia nitrogen content of waste and its organic content. The applicant states that this waste has previously been added to the treatment process with no evidence of adverse pH conditions.

9. **Is it known that all the substances within the bespoke waste are biodegradable?**

    - The waste is included in the SR2010 No4 landspreading standard rules. Therefore the applicant advises the material is deemed to be biodegradable as part of the Environment Agency's regulatory framework. The applicant has also pointed out that apart from the flocculant used, the material should be organic in nature, comprising of wool fibres and manure.

10. **Has it been demonstrated that all the substances within the bespoke waste are mineralised in the biological process?**

- The applicant has stated that the low C:N ratio will aid the mineralisation of the waste. They have not provided specific detail of any reactions that show how the waste will be broken down. The applicant also refers to the fact that the waste is included in the SR2010 No4 landspreading standard rules and this indicates that the waste will not result in significant impacts to human health and the environment under aerobic decomposition.

In conclusion, we have assessed the applicant's assessment and consider they have adequately demonstrated that the waste is acceptable for inclusion in the composting process.

Odour

The applicant has provided an odour management plan for this site as they will be dealing with large amounts of potentially odorous ABP waste. The odour management plan (OMP) has been assessed against our H4 Odour Management guidance dated March 2011.

Primary odour control measures

Source materials:

The OMP has an inventory which lists the quantities of material that will be on site during operation. Odorous sources that may be present on site include the following:

- Incoming ABP waste material
- Pre-shredded green waste
- In Vessel Composting tunnels
- Storage of compost in windrows on the maturation pad
- The movement of compost from the IVC tunnels to the maturation Pad
- Leachate within the leachate drainage pit

Releases:

Air from the treatment building is passed through a wet scrubber that is associated with the adjacent rendering plant operated by Inztec Ltd (EPR/RP3638MW). The wet scrubber is operated and maintained in accordance with the Environmental Permit for the rendering facility. We consider the scrubber is suitable for treating odours associated with the increased levels of APB waste introduced by this variation as it has been demonstrated to effectively treat odours associated with APB waste processed by the rendering facility.

A door management system operates on site to reduce the amount of odour released whilst the doors are open.

Impacts:

The site is located within a rural location and is surrounded by agricultural land and animal husbandry. There are a number of potential sources of odour around the site such as pig farms, chicken farms, cattle farms. In addition, there is an anaerobic digestion (AD) plant 2.5 km to the northwest, a landfill site 1.6 km to the north and composting sites the nearest of which is 750 m to the northwest.

There is an Inztec Ltd rendering plant for ABP waste located immediately adjacent to the composting site and is regulated by the Environment Agency under a separate permit (EPR permit reference RP3638MW).

Monitoring

Monitoring will be carried out daily, weekly, monthly and six monthly/annually.

- **Daily** monitoring will consist of upwind and downwind "boundary" odour sniffing by a member of staff.
    - The location of sniffing points will be determined with reference to wind direction at the time of the observations. Where possible, observations will be carried out by personnel who have not been working within the composting buildings within the previous 1-3 hours, although this may not always be possible if monitoring is carried out as a result of a complaint.

- **Weekly** monitoring will be carried out by the Site Manager to measure the effectiveness of all cleaning and site hygiene procedures.
    - These checks will be based on a walk-over inspection of the entire site and the results will be recorded in the site diary. The Site Manager's training record will include evidence that suitable training has been undertaken to carry out all site checks. In the site manager's absence, a suitably trained member of staff will carry out the checks.

- **Monthly** checks will consist of reviewing odour monitoring records for any trends, reviewing any complaints to establish any trends/determine any point sources and reviewing odour diaries.

- **Six Monthly/Annual** checks will consist of reviewing odour monitoring records for any trends and reviewing any odour complaints records.

Process

The following measures are in place to ensure the composting process is controlled to minimise odour creation, particularly to prevent the process becoming anaerobic which could lead to odours being created.

- **Moisture:** Staff are trained on the correct waste mix, moisture checks carried out and wastes are analysed before being accepted on site.

- **Temperature:** The temperature of the composting material is monitored to confirm that appropriate temperature conditions have been achieved. The data is recorded and available to the regulatory authorities for inspection.
- **Parameters relating to feedstock:** As mentioned above, members of staff will be trained on getting the waste mix correct, moisture checks are carried out and there will be an analysis of wastes before they are accepted on site.
- **Holding times and conditions:** Site operators are trained in compost management and procedures. All compost remains on site until it has achieved the minimum stability level.

Emissions

- **Wet scrubber:** The applicant has stated that the site manager will ensure the monitoring of the wet scrubber is carried out and any actions implemented.
- **Air extraction:** The site manager shall also ensure the air extraction programme is implemented effectively. In the event of power failure all waste procedures will stop.

Dispersion:

- **Meteorological monitoring:** Meteorological conditions will be monitored by the applicant using the on-site Met station.
    - This information can be used to assess the source and potential effects of bioaerosol, dust or litter emissions.
- Any on-site activity identified as a potential source of the increased bioaerosol levels will be investigated.

Exposure / impact

- **Complaints:** The applicant has identified the following steps to deal with any complaints:
    - **Step 1 – Complaint received:** Start to complete an Odour Complaint Report Form
    - **Step 2 – How to Respond:** Identify the likely cause and source of the odour and gather as much information as possible about the complaint
    - **Step 3 – Determine what to record and how:** The complaint details and the investigation are to be recorded in accordance with the requirements on the Odour Complaint Report Form.
    - **Step 4 – Follow-up investigation:** Fully investigate the source and cause of the odour and the operational conditions that led to the complaint. Select the most appropriate methodology for assessment.

Conclusion

We have assessed the OMP and consider that the applicant has proposed adequate measures to prevent and minimise odour emissions. We have

approved the OMP but our odour condition allows us to request a revised OMP if any future odour issues do arise.

Best Available Technique (BAT) assessment

We have reviewed the operating techniques proposed by the Applicant and compared these with the relevant guidance as set out in the Environment Agency's Draft Technical Guidance Note for Composting and Aerobic Treatment Version 1, (which is our current understanding of BAT for aerobic digestion). Where necessary, we have requested further information from the Applicant.

The Installation will be designed, constructed and operated using BAT for the treatment of the permitted wastes. We are satisfied that the operating and abatement techniques are BAT for these types of waste. Our assessment of BAT is set out below.

Table 1 compares indicative BAT taken from our draft guidance 'How to comply with your environmental permit. Additional technical guidance for: composting and aerobic treatment sector' and the measures proposed in the supporting information to the application.

Table 1 Comparison of Indicative BAT with key measures proposed by the operator

Indicative BAT	***Key measures proposed***
<u>Indicative BAT requirements for waste pre-acceptance</u> From the waste disposal enquiry the operator should obtain information in writing relating to: • the specific process from which the waste derives • the quantity of waste • compositional analysis • the form the waste takes (solid, liquid, sludge etc) • age of the waste • EWC code • contingency for dealing with non conforming waste and contingency planning in emergency.	The operator has pre-acceptance procedures in place in order to characterise the waste prior to delivery at the site to prevent delivery of waste that would be unsuitable. The procedures are noted as follows: • details of the customer and the waste producer; • the source of the waste; • a description of the waste; • whether waste has been previously composted; • whether the waste contains animal wastes; • a description of the waste (e.g. colour, character or any odour) and the physical form of the waste (e.g. solid, sludge,

	powder, liquid); • details of any analysis carried out, by whom and when carried out; • the quantity of waste requiring treatment per annum; • EWC code for the waste.
Wastes should not be accepted at the facility unless suitable for composting and aerobic treatment. Biological treatment facilities should be aware that agricultural landbank may not be available for outputs if waste is not fully characterised and alternative disposal routes may be needed.	The operator has specified that waste characterisation is carried out only by senior staff and those qualified (WAMITAB certified personnel only) to agree to the pre-acceptance of waste. Waste will not be accepted at the site without this prior characterisation and pre-acceptance approval.
The operator should ensure that the sample is representative of the waste and has been obtained by a person who is technically competent to undertake the sampling process. Where necessary, targeted analysis must be carried out by a UKAS accredited laboratory with a recognised quality assurance and quality control methods and record keeping.	A waste characterisation check is carried out by qualified staff (WAMITAB certified personnel). A sample of the waste is provided by the customer and this is sent away for analysis by a UKAS accredited laboratory. The analysis of the waste includes heavy metals, potassium, phosphates and nitrogen as a minimum.
Indicative BAT requirements for acceptance procedures Load arrival The inspection, unloading and sampling areas should have suitably sealed drainage systems. On arrival loads should: • be weighed and be accompanied by a transfer notes, • should not be accepted unless	The operator has stated that a waste acceptance form must be completed for each waste type. This identifies the date of the delivery, the source and description of the waste and quantity of waste being delivered. The waste is weighed and documents are checked to ensure that these are in order and that the details of the waste provider and description of the

sufficient storage capacity exists for quarantine and site is adequately manned to receive waste • all documents checked and approved, and any discrepancies are resolved before the waste is accepted. Waste quarantine procedures to be in place.	waste are provided. Waste is not accepted at the site if there are insufficient unloading areas or insufficient capacity at the site for the treatment of the waste material. The operator has waste quarantine procedures in place.
<u>Load inspection</u> Visual inspection should be carried out if safe to do so. Confirmatory checks should be undertaken before offloading where safety is not compromised. Following inspection, the waste should then be unloaded into a dedicated sampling/reception area. Inspection must in any event be carried out immediately upon offloading.	A visual inspection of the waste is carried out to ensure that the waste is consistent with the pre-acceptance procedures. The waste is unloaded within the dirty reception area within the compost process building. A further inspection is carried out at the unloading bay to ensure that the waste is consistent with the description provided and does not include other waste types.
<u>Waste rejection procedures</u> The operator should have clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting non-conformance. This should include notification to the customer/waste producer and the Environment Agency. Written/computerised records should form part of the waste tracking system information. The operator should also have a clear and unambiguous policy for the subsequent storage, disposal of rejected wastes. This policy should achieve the following: • identifies the hazards posed by the rejected wastes • labels rejected wastes to allow proper storage, segregation or disposal	Once the waste has been accepted, it is treated within 48 hours. However, where the waste is deemed to be unsuitable, it will be rejected. The acceptance or rejection of waste is carried out by suitably qualified staff (WAMITAB certified personnel or trained personnel only). If on inspection of the paper work, any waste is deemed unacceptable, the vehicle is guided to the quarantine area where it stays until the customer provides instructions as to where the vehicle will be sent. The BAT assessment details that loads detected as unsuitable during unloading will be reloaded back onto the same vehicle and sent to the quarantine areas, or stored in sealed containers and sent to the quarantine area.

• alternative disposal arrangements must be in place • storage areas should be impermeable and bunded.	
<u>Indicative BAT requirements for waste reception and storage</u> <u>Reception</u> The reception area for the feedstock/waste should: • be appropriately sized to accommodate the expected permitted volume, • be appropriate for the properties of feedstock, • be able to accommodate basic pre-treatment.	The reception area comprises two bays where animal waste is delivered and where it can be mixed with other shredded green waste to enhance the composting process. The storage of waste prior to pre-treatment is limited to the unloading bays within the reception area. Waste is only accepted at the site with prior agreement and when there is sufficient capacity within the bays. There is no outside storage of untreated waste. The reception area can accept up to 20 tonnes of ABP waste.
The reception area should allow segregation of Animal By Product Regulations (ABPR) waste and be compliant with these requirements.	The reception area comprises two bays where animal waste is delivered and where it can be mixed with other shredded green waste to enhance the composting process (e.g. liquid animal wastes are mixed with dry green waste). Animal by-product wastes are stored in a separate pit.
Where feedstock deliveries are required to be offloaded for inspection and acceptance sampling prior to pre-treatment, the reception areas should be segregated. Typically into bays or tanks and managed to ensure waste is not stored for more than 5 days. Where a bay is utilised daily it should	The waste reception area is located within the composting building but separated from the in-vessel composting area to prevent contamination of composting material with freshly delivered waste.

be cleaned at least weekly. Should the inspection or analysis indicate that the wastes fail to meet the acceptance criteria, then such loads should be stored in a dedicated quarantine area and dealt with appropriately.	The applicant has stated the waste will be sent to the quarantine area if it does not meet acceptance criteria.
Ventilation Where the waste reception area is required to be in an enclosed building it will include a building ventilation system and an odour abatement system that maintains the building under negative air pressure in order to minimise fugitive odour, bioaerosol, and dust release from the building. The air extraction system should be sufficient to ensure at least 3 air changes per hour or equivalent, higher extraction rates may be appropriate for certain feedstocks or sensitive locations. Air should be vented to a suitable abatement system.	The composting building air is extracted to the odour control system associated with the animal by-products treatment facility thereby minimising the fugitive release of odours from waste handling and storage activities. The number of air changes is unknown but the applicant has indicated that they consider it likely to be low. It is unlikely that the flow is sufficient to maintain the building under negative pressure. As this is an existing site that has not had any recent issues with odour, we have decided not to request that the building extraction system is changed. If any odour issues do arise in the future, we can request improvements are made to the site infrastructure via our odour condition 3.3.1.
<u>Surfacing and Drainage</u> The reception area should be designed to facilitate cleaning including drainage to allow discharge of wash waters into gullies and to a sump for use within the process. All reception areas must have an impermeable surface with self-contained drainage, to prevent any spillage entering the storage systems or escaping off-site. The design should prevent the contamination of clean surface water. Where ABP materials are processed, wheel-wash facilities should be provided for disinfecting delivery vehicles on exit from the reception hall.	All floors within the waste reception area comprise concrete floors and any liquids associated with the wastes will drain into the storage pit where it is mixed with dry waste. The operator has confirmed that all vehicles leaving the reception area will be visually inspected and disinfected using Defra approved dis-infection fluids. If wheels are found to be heavily contaminated, they will be washed using a low-pressure jet wash to remove contamination.

Storage Should the inspection or analysis indicate that the wastes fail to meet the acceptance criteria, then such loads should be stored in a dedicated quarantine area and dealt with appropriately. Such storage should be for a maximum of five working days prior to disposal.	Waste will be moved to the quarantine area if it does not meet the acceptance criteria. Waste will be removed from the quarantine area within 24 hours if possible and kept there for no longer than 5 days. If waste is not removed by the customer, then it will be removed from site for appropriate disposal or recovery.
Impermeable surfaces and sealed drainage systems should be provided for all areas where waste is stored and/or treated, to prevent contamination from any spillages.	All floors within the waste reception area comprise concrete floors and any liquids associated with the wastes will drain into the storage pit where it is mixed with dry waste.
Indicative BAT requirements for IVC - general principles Vessel design The process should be fully enclosed with an air abatement system.	Air from within the IVC area is extracted to the odour control system. This involves air being extracted and transferred to the adjacent site for treatment as discussed in the odour key issues section. This system uses a wet scrubber before emission via a stack.
Treatment areas should have engineered impermeable surfaces with kerbed areas to allow collection of runoff and leachate Run off and leachate (dirty water) should be collected in an engineered system and collected in a sump or lagoon and kept separate run off from other areas.	Processing areas are situated on concrete surfaces. Any leachate that is generated drains to the reception pit. The leachate may be used or disposed of as follows: • Mixing with incoming waste where additional moisture is required; or • Taken off-site for appropriate

	disposal.
<u>Management and Pre Treatment of Wastes</u> The pre-treatment of wastes to remove non-biodegradable material and contaminants from feedstock and also to provide optimal substrate characteristics to enable an effective and efficient digestion process.	The applicant has stated that for the vast majority of waste there is no mechanical pre-treatment carried out at the site as green waste is delivered to the site pre-shredded. However, a visual inspection of the waste is carried out and where particle sizes are identified as being greater than 12 mm then the material is diverted to the shredder or Trommel to reduce particle size to less than 12 mm.
Where ABP and non ABP material are processed the facility should allow for both materials to be segregated preventing cross contamination. Leachate collection should be separated.	The animal waste is stored within the reception pit and is separate from the shredded storage area for green waste.
Process Monitoring Controls A suitable monitoring system, both manual and instrumental, is essential to ensure stable process operation and to minimise operational difficulties, such as anaerobic conditions which may lead to odour and aesthetic problems.	
The key factors to be monitored during the process itself include: • Temperature and temperature distribution • Moisture	Three temperature probes are inserted into the waste material to monitor temperature. The temperature is recorded continuously and temperature and moisture content are checked on a daily basis.
Where ABP material is processed,	

pre-treatment must meet minimum particle size requirements as specified by the ABP regulations • A discrete quarantine area should be provided for the segregation of unacceptable wastes. Removing materials contrary material from site within 5 days	A visual inspection of the waste is carried out and where particle sizes are identified as being greater than 12 mm then the material is diverted to the shredder or Trommel to reduce particle size to less than 12 mm as per DEFRA regulations. Waste will be removed from the quarantine area within 24 hours if possible and kept there for no longer than 5 days. If waste is not removed by the customer, then it will be removed from site for appropriate disposal or recovery.
Indicative BAT requirements for odour control The main constituents and inventory of the emissions should be identified. This will allow the appropriate measures and abatement technology to be selected to remove or reduce emissions. Where odour-generating activities take place in the open, (or potentially odorous materials are stored outside), a high level of management control and use of best practice to prevent odours will be expected as above. Avoidance of processing activity that are high risk of producing odour during unfavourable meteorological conditions such as turning, screening and shredding. The following general techniques should be employed : • Covering of skips to and from site and in storage. • Avoidance of unmonitored or unmanaged outdoor or uncovered stockpiles (where possible) • Where dust creation is unavoidable, use of sprays,	Some of the waste accepted will be highly odorous but this material will be handled within the composting building with air extracted to the odour control system. A wet scrubber will be used that is designed to treat odours generated from animal by-product wastes. Air is drawn from the reception area and IVC area to minimise fugitive emissions from the process building. The application states that all vehicles bringing waste to the site must be covered. During outside stabilisation and maturation, the compost is only disturbed every two weeks as it is turned and placed into the next pad. In addition, the site is relatively remote with the nearest sensitive receptor being in excess of 500 m

binders, stockpile management techniques, windbreaks etc. are employed based on risk assessment • Wheel and road cleaning (avoiding transfer of pollution to water and wind blown particulate) • Closed conveyors, pneumatic or screw conveying (noting the higher energy needs). Filters on the conveyors to clean the transport air prior to release • Regular housekeeping Where odour and emissions can be contained, for example within buildings, the operator should maintain the containment and manage the operations to prevent its release at all times.	from the composting site. Therefore, the source-receptor-pathway link is very limited. The applicant has stated that pre-shredding of green waste will be carried out in the open and water sprays would be utilised to minimise dust emissions. The application states that roads and process areas are regularly swept and maintained in a clean condition. It also states that vehicle and containers are cleaned in the dirty area / cleaning area and drivers discard soiled clothing and disinfect wheels and boots. These are detailed in the Management System for the site. Daily checks are made at the site boundary to identify odorous wastes and to assess the potential for off-site odour. The composting reception area is a brick building. The base of the building is bunded which prevents any fugitive emissions. A door management system operates on site to reduce the amount of odour released whilst the doors are open.
BIO-AEROSOLS **Haul roads and processing areas should be swept and damped down at least daily in dry conditions.**	The composting phase is conducted within tunnels in the processing building which will minimise bio-aerosol release during the composting phase. Where operations do result in visible dust generation - that may have a potential offsite effect - steps will be taken to prevent the emission (e.g. by reducing the disturbance or by dampening the area). The application states that roads and process areas are regularly swept and maintained in a clean condition.

Indicative BAT requirements for control of leachate and dirty water	
Prevention of excessive leachate as a priority through design is needed, diverting rainfall from stored feedstock, active composting and product maturation areas where possible. Leachate should be managed via a sealed drainage system that collects and separately contains it from non-contaminated surface water at the facility.	Leachate and dirty water from the site drains to a drainage pit. This water is reused for maintaining the moisture content of the compost. There is no discharge of water to surface water, groundwater, land or to sewer from the site.
Reuse of leachate to maintain optimum moisture content in the active composting mix must take account of ABPR and avoid contamination. Leachate from unsanitised waste should not be applied to sanitised wastes.	Leachate or liquid wastes generated in the reception area where there are animal wastes is only used for mixing with unsanitised waste prior to the IVC process.
Indicative BAT requirements for dust prevention and control	
Regular monitoring of moisture content within the compost will assist with reducing dust emissions. At least daily during active treatment and weekly in maturation phases.	The temperature and moisture content of the compost in the maturation area is checked weekly.
Initiating dust suppression techniques including water mists and sprays and windbreaks. Wetting and washing techniques – i.e. Damping down frequently during in dry weather, washing wheels of vehicles and roadways.	Where pre-shredding of green waste is carried out in the open, water sprays will be utilised to minimise dust emissions. Roads and process areas are regularly swept and maintained in a clean condition. All spillages are promptly cleared and the area cleaned.
Indicative BAT requirements for	

pest and Vermin control Using enclosed delivery areas for food and catering waste is received stored or processed. Inspections being carried out weekly by a nominated person and the results recorded. All operatives should report any sightings to the nominated person immediately. Operators having written procedures for the inspection and control of vermin.	The delivery of waste and animal waste is carried out within the process buildings and minimises the potential for vermin to infest freshly delivered compost. Weekly inspections are carried out to identify the potential for infestations and measures are in place for the control of vermin. Rodent stations are posted around the site. When rodents are found, the sightings are recorded in the Vermin Check sheet within the office.
Indicative BAT requirements for Noise and Vibration Describe the main sources of noise and vibration (including infrequent sources); the nearest noise sensitive locations and relevant environmental surveys which have been undertaken; and the proposed techniques and measures for the control of noise.	The main sources of noise listed in the application are as follows: • Two 'loading shovels' – intermittent operation outside buildings • Waste Deliveries – tipping takes place inside the reception building • Waste shredder – intermittent operation – outside the building • Compost screening/turning – intermittent operation outside building. The application states that the noise level created by the activities on site do not exceed that of ordinary farm operations due to distance between the closest dwellings and the site. Noise levels at the site boundary will be informally monitored at the same

	time as occupational levels are checked and reported in the site diary. A significant increase in noise levels will be investigated.

Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met Yes
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The following organisations were consulted: • Public Health England • Health and Safety Executive (HSE) The decision was taken in accordance with our guidance.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. The nearest receptors are: • **Deciduous woodland habitat** 735 metres from the site boundary • **Local wildlife site North Cliffe Wood** 1,939 metres from the site boundary A full assessment of the application and its potential to affect the habitats has been carried out as part of the permitting process. We consider that the application will not affect the features of the habitats due to the control measures in place to prevent dust emissions.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	We have not formally consulted on the application. The decision was taken in accordance with our guidance.	
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. See Key Issues sections for further details.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in the Environment Agency Draft Technical Guidance Note for Composting and Aerobic Treatment and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BAT reference documents (BREFs). The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit. See key issues section for more details.	✓
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. We, the Environment Agency, have reviewed and approved the Odour Management Plan and consider it complies with the requirements of our H4 Odour management guidance note. 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.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	See key issues section for further details.	
The permit conditions		
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. The operator has applied to add the following novel waste code: • 04 02 20 – “sludges from on-site effluent treatment other than those mentioned in 04 02 19”. The operator has also requested that the following waste codes from the compost quality protocol are included in the application: • 02 01 01: sludges from washing and cleaning • 20 03 01: mixed municipal waste We are satisfied that the operator can accept these wastes for the following reasons outlined in the key issues section. We have added specific wording to table S2.2 to restrict these waste codes to acceptable biodegradable sources only. We made these decisions with respect to waste types in accordance with ‘Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment Framework Guidance Note’ dated July 2013 and the Compost Quality Protocol dated August 2012.	✓
Monitoring	We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified: • Temperature • Moisture • Odour • Drainage Infrastructure Integrity	✓

Aspect considered	Justification / Detail	Criteria met Yes
	These monitoring requirements have been imposed in order to ensure the process is controlled. We made these decisions in accordance with the Environment Agency Draft Technical Guidance Note for Composting and Aerobic Treatment.	
Reporting	We have added reporting in the permit for the following parameters: • Annual processed compost • Water usage • Energy usage • Total raw material used We made these decisions in accordance with the Environment Agency Draft Technical Guidance Note for Composting and Aerobic Treatment.	✓
Operator Competence		
Environment 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.	✓
Growth Duty		
Section 108 Deregulation Act 2015 – 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 vary 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	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	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.	

Annex 2: Consultation responses

Summary of responses to consultation 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
Public Health England do not have concerns regarding adverse public health impacts associated with bioaerosol emissions from this facility providing that the applicant implements the control measures described in the application and operates in accordance with any permit granted by the Environment Agency.
Summary of actions taken or show how this has been covered
No actions necessary.

Response received from
HSE
Brief summary of issues raised
HSE returned the application as *"It has been agreed that HSE's role as statutory consultee under the Environmental Permitting Regulations 2007 should be restricted to major hazard sites only."*
Summary of actions taken or show how this has been covered
No actions necessary.