

Environmental Permit Variation Application

Growing Beds Recycling Services Limited

Date: July 2022



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1 INTRODUCTION

1.1 PURPOSE OF THE APPLICATION

This application is for an Environmental Permit variation application to include a non-hazardous waste wood treatment activity to be operated by Growing Beds Recycling Services Limited (hereafter referred to as Growing Beds) at their site near Ravensden, Bedfordshire. The site's address is:

Growing Beds Recycling Services Ltd
Organics & Biomass Recycling Facility
Kimbolton Road
Ravensden
Bedford
Bedfordshire
MK44 2SJ

The site is located approximately 1.1 km North East of the village of Ravensden in rural Bedfordshire at National Grid reference TL 05952 55420. The area immediately surrounding the Installation is comprised of the following key land uses:

- North: Agricultural land.
- South: Commercial properties across the B660 road, agricultural land with Ravensden village at distance.
- East: Agricultural land with the village of Wilden beyond.
- West: Agricultural land, woods and isolated houses beyond that.

Figure 1.1 shows the site and the surrounding area.

Designated Ecological Sites

The site itself is not subject to any statutory or non-statutory nature conservation designations.

The only sites within 2km of the Ravensden Composting Facility which have ecological designations are shown in Figure 1.2 below. This shows the closest ancient woodland are Little Wood and Great Wood approximately 300m and 400m west of the site respectively.

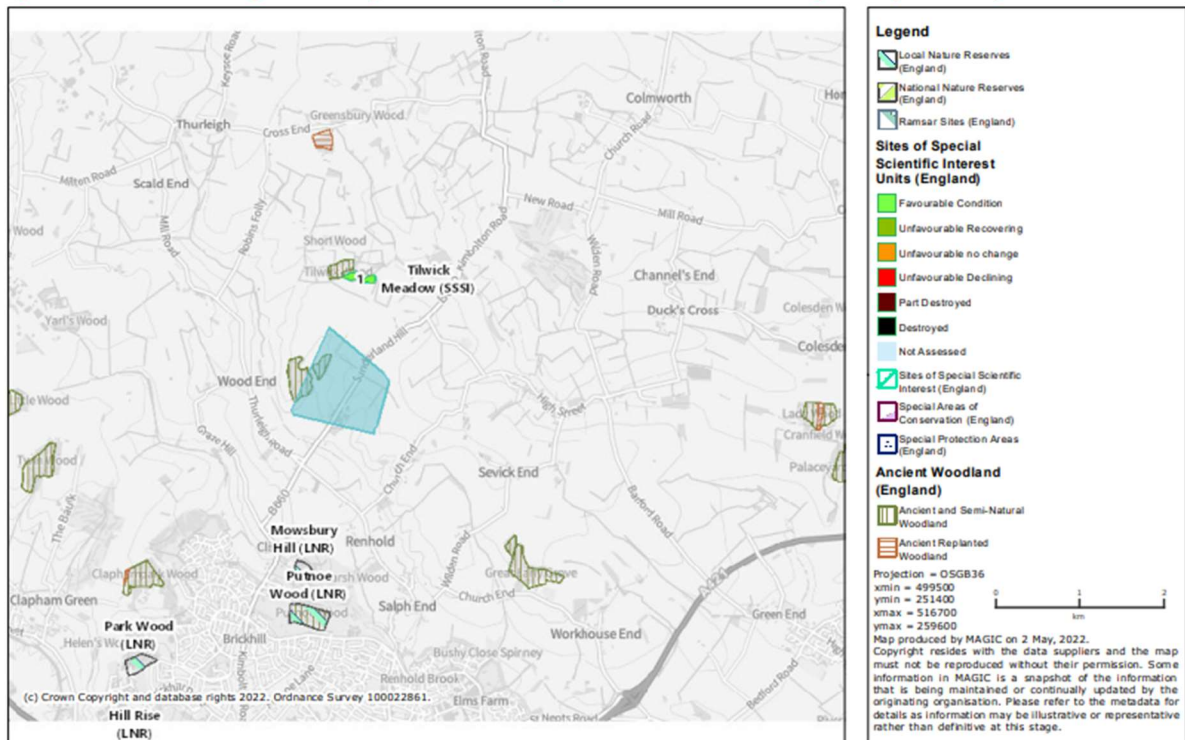
The following ecologically designated sites are located within 2km of the Ravensden Composting Facility:

- Tilwick Meadow Site of Special Scientific Interest (SSSI); and
- Mowsbury Hill Local Nature Reserve (LNR)

Figure 1.1 Site Location



Figure 1.2 Ecological Designations nearby to Ravensden Composting Facility



1.2 REGULATORY CONTEXT

The site had operated under a waste management licence EAWML since 2005 until this was transferred to an Installation permit and subsequent Environment Agency led permit variation to include conditions from the Industrial Emissions Directive (IED) in 2015.

This permit allows the operator to compost waste under aerobic conditions in open systems such as outdoor turned windrows up to the permitted capacity of 32,000 tonnes per annum. Incoming green waste is delivered over a weighbridge prior to tipping in the reception area where it is inspected for non-conforming items. The material is then shredded before being placed in windrows for sanitation, stabilisation and maturation to produce a PAS100 certified compost. The composting takes place on an impermeable surface with a sealed drainage system. The site is surrounded by an acoustic bund to reduce noise emissions and water is used for dust suppression if necessary.

1.3 PROPOSED CHANGES SUBJECT TO THIS VARIATION

The site has operated a wood shredding activity since 2005 to provide shredded wood to a local waste wood biomass incineration plant. The EA in their pre-application advice state:

“the operator has been undertaking a shredding activity for several years and the permit has not been subject to any variation applications to incorporate this into the permit. Therefore, the waste wood shredding operation has not been subject to formal assessments of its operating techniques, risk assessments and required management plans. However, I acknowledge that there has been discussions with the local regulatory officers regarding the fire prevention plan”.

This has been known and allowed at local site pending a permit application to include the waste shredding activity within the permit.

Other discussions were had under enhanced pre-application advice with the EA with regards to the shredding of hazardous wood but were not taken forward as the cost implications and BAT requirements would put the site at a considerable disadvantage to those who currently do this and are not required to operate to the same equivalent standards.

The enhanced Pre-application advice given by letter dated 6th April 2022 from a Senior Permitting Officer is as below:

“A variation to the permit to add a waste wood shredding installation and a bespoke waste operation for the storage of waste soils and street cleaning residues. During the meeting, you indicated that there could also be a street cleaning residue treatment process.

During our meeting, the operator indicated that the waste wood shredded is for the purposes of meeting a fuel specification to the Twinwoods co-incineration plant. The incineration permit only accepts waste for incineration for disposal. Therefore, if the treatment capacity of the wood shredding operation is greater than 50 tonnes, it would be an installations activity.

The addition of a wood shredding installation, storage and treatment of street cleaning residues could add a bespoke installation and bespoke waste operations to the permit. The type of variation is likely to be a substantial variation in that it could significantly alter the permitted activities.

The activities and associated charges would be:

- *Total maximum application fee – £25,885*

This total charge is comprised of the addition of specific activities, and each will convey a cost. The charges can be found in the latest version of the charging scheme.

- *Non-hazardous shredding activity – New bespoke installation S5.4 A(1)(a)(iii) pre-treatment for incineration (1.16.2.2 – £13,443). Note only an installation if shredding capacity is greater than 50 tonnes per day.*
- *Bespoke storage of street sweepings, soil and stone, minerals/soil storage – Bespoke waste operation (1.16.6 - £9,176). Fee also includes FPP assessment and odour management plan assessment.*

Component fee – Maximum £3,266. Minimum £2,020.

- *Dust management plan (1.19.5 – £1,241)*
- *Noise management plan (1.19.7 – £1,246 may not be required if risk assessment determines none required)*
- *Habitats assessment (1.19.1 – £779 site is around 1km from a SSSI)*

The application forms required are the same for Scenario 1”.

The site is not proposing to move forward with the street sweepings therefore the application cost remains at:

- *New bespoke installation S5.4 A(1)(a)(iii) pre-treatment for incineration (1.16.2.2 – £13,443)*
- *Dust management plan (1.19.5 – £1,241)*
- *Habitats assessment (1.19.1 – £779)*

This gives a total application fee of £15,463.

1.4 APPLICATION STRUCTURE

The application for an Environmental Permit consists of Forms A, C2, C3 and F as required under the EPR. The forms are supported by this report which comprises the main application detailing key best available techniques assessments as well as impact assessment summaries which are supported by a number of appendices to provide further supporting information and detailed environmental assessments. This report has been structured in accordance with the relevant technical guidance for the proposed activities, namely:

- *Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment*
- [Non-hazardous and inert waste: appropriate measures for permitted facilities - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities)
- <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

2 PROPOSED CHANGES

2.1 PERMITTED AREA AND CURRENT ACTIVITIES

The site is looking to increase the installation boundary by adding land to the permitted area and to increase throughput of the site to 49,000 tonnes per annum.

In addition, it is proposed to add a non-hazardous wood shredding activity S5.4 A(1)(a)(iii) pre-treatment for incineration as the shredding activity exceeds 50 tonnes per day. It should be noted that this has been undertaken for a number of years now with the full consent of the local officer and this application is to formalise that activity, as agreed with the National Permitting Service with the pre-application advice and with the local site officer.

The 49,000 tonnes per annum throughput will be split across the composting and wood shredding activity. There is no proposed maximum on each process other than the total throughput of the site to allow for operational flexibility and seasonality of each activity. The currently permitted area is shown in Figure 2.1 below.

The wood shredding activity currently undertaken is organised as detailed in Table 2.1 below.

Table 2.1 Wood shredding activity in existing installation boundary

Waste types	Form	Containment	Storage capacity (m ³)	Storage capacity (tonnes)
Non-hazardous wood	Shredded wood storage	Open Piles in 2 bays	20m x 20m x 4.0m (2 storage piles separated by firewall) 1,600 m ³ twice for a total of 3,200m ³	1,216 ¹
			Biomass – One-Two shredded piles on the pad (dependent on time of year) 20x20x4 1,600m ³ each	608 ¹ per pile
	Unshredded	Bays 3 and 4 in new area	30m x 25m x 4.0m 3,000m ³ each	1,140 ¹ per pile
			One-two unshredded piles on the pad 40 x 20 x 4 3,200m ³ each	1,216 ¹ per pile

This variation will include an increase to the installation boundary which will include for bays 3 and 4 to store shredded waste wood.

Figure 2.1 Current Permitted Area

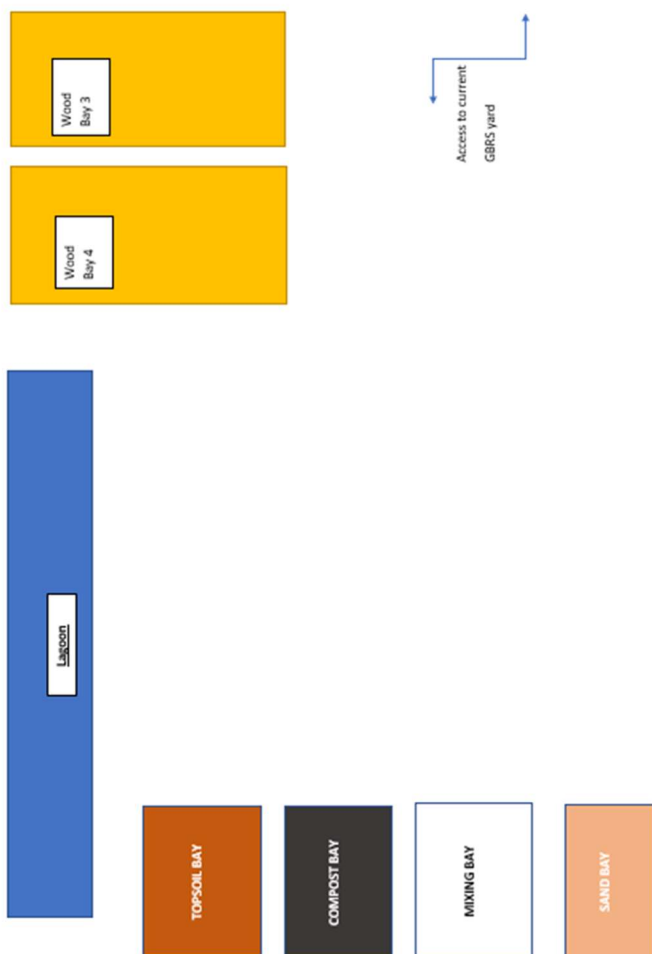


The proposed revised Installation boundary shows that there will be an increase in the site footprint and can be seen in Figure 2.2 below. This additional land is currently fields which will be incorporated into the site and hardstanding laid on this area to allow the proposed operations to take place. Figure 2.3 shows the proposed revised site layout.

Figure 2.2 Proposed Revised Installation Boundary



Figure 2.3 Additional Land Layout



2.2 ADDITIONAL ACTIVITIES

The proposed additional waste operations and scheduled activities are detailed within Section 1.3 of this application document.

2.3 WASTE TREATMENT ACTIVITIES

The proposed additional waste treatment activity is a non-hazardous wood shredding activity S5.4 A(1)(a)(iii) pre-treatment for incineration as the shredding activity exceeds 50 tonnes per day. No further activities are proposed with this variation.

2.4 CHANGES TO STORAGE

The existing wood shredding activity which is to be included within the permit includes for 2 shredded bays and 2 unshredded bays with some storage on the pad awaiting shredding.

The new area is proposed to store:

- PAS 100 compost which is a product and has passed the protocol and is no longer classified as waste
- 2 additional wood bays each 30m x 25m x 4.5m in height;
- Lagoon (75m x 15m x 3.5m)
- Sand bay
- Topsoil bay
- Mixing Bay

The wood codes to be accepted for the shredding activity are:

03 01 01 waste bark and cork

03 01 05 sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04

03 03 01 waste bark and wood

15 01 03 wooden packaging

17 02 01 wood

19 12 07 wood other than that mentioned in 19 12 06

20 01 38 wood other than that mentioned in 20 01 37

The site will receive sand and stone as product from a local quarry to mix with some of the PAS100 compost for sale as a product. As neither of these materials are a waste it is considered that these are not a separate listed activity.

3 MANAGING YOUR ACTIVITIES

3.1 GENERAL MANAGEMENT APPROPRIATE MEASURES

This section provides a description of the measures in place to minimise the risks and effects of accidents together with general management requirements.

3.1.1 MANAGEMENT SYSTEMS

Table 3.1 below details the appropriate measures with regard to management systems and how FIS complies with these measures.

Table 3.1 Non-hazardous and inert waste appropriate measures for management systems

EPR Requirements	Current Arrangements	BAT?
<p>You must have and follow an up-to-date, written management system that incorporates the following environmental performance features:</p> <p>You have:</p> <p>management commitment, including from senior managers an environmental policy that is approved by senior managers and includes the continuous improvement of the facility's environmental performance</p> <p>You plan and establish the resources, procedures, objectives and targets needed for environmental performance alongside your financial planning and investment.</p>	<p>Current management procedures in place include:</p> <ul style="list-style-type: none"> • Health and safety policy; • Fire prevention plan; • Working plan for permit; and • PAS 100 requirements. <p>An EMS will be required to be developed in accordance with the BAT requirements but this will be in accordance with the scale and simplicity of the operation and not be a certified system.</p> <p>The EMS will have an environmental policy which sets out senior management commitment.</p> <p>Finances are reviewed monthly by the Director and any capital expenditure is planned in so as to ensure the financial well-being of the company.</p> <p>Some decisions have a longer lead time for example replacing the 3 existing shredders with a quieter newer shredder capable of having a greater throughput. Can now shred green bay in 1.5 days as opposed to 5 days, therefore reducing the retention time.</p> <p>Other financial decisions are more reactive such as the withdrawal of the red diesel from waste operations therefore a move to a hybrid trommel and hybrid generator to reduce the overall fuel costs but would have the added benefit of lowering emissions from diesel fired mobile plant.</p>	<p>No- an EMS needs to be developed in accordance with the scale and simplicity of the site activities</p> <p>Yes</p>

<p>You implement your environmental performance procedures, paying particular attention to:</p> <ul style="list-style-type: none"> staff structure and relevant responsibilities staff recruitment, training, awareness and competence communication (for example, of performance measures and targets) employee involvement documentation effective process control maintenance programmes managing change emergency preparedness and response making sure you comply with environmental legislation 	<p>The following measures are in place:</p> <p>The site has in place an organogram and responsibilities procedure.</p> <p>Staff training is done through internal and on the job training. The key function is the WAMITAB and COTC technical management which is held by Mark Evans (Director).</p> <p>All staff are trained on the relevant mobile plant and equipment and through an induction and site hand book</p> <p>Fortnightly staff meetings are held to update on the company position, update on any changes and to get feedback from the employees.</p> <p>The maintenance programmes revolves around manufacturer's instructions. Shredder and trommels are maintained by the equipment supplier. Loading shovels out of warranty are maintained by a local engineering firm based on number of operational hours. Greasing cleaning down antifreeze done on site</p> <p>Site fire plan-</p> <p>Need to send staff on fire marshal course and first aid course</p> <p>Comply with requirements within the permit.</p> <p>The site keeps up with environmental legislation through membership of the REA/CPA. The site is also a member of the organics recycling group in REA. Alerts picked up in waste trade magazines.</p> <p>All Staff are trained to NPORS Level for the relevant mobile plant on site. This lasts for 3 years and is done by external examiners and assessors.</p>	<p>No- need to adopt a formal procedure to review accidents/incidents and adopt corrective and preventative measures.</p>
<p>You check environmental performance and take corrective or preventative action, paying particular attention to:</p> <ul style="list-style-type: none"> monitoring and measurement learning from incidents, near misses and mistakes, including those of other organisations records maintenance 	<p>The site has in place a health and safety policy as well as an accident book. Accidents/incidents are being captured and recorded.</p> <p>These are informally reviewed by management on an ongoing basis.</p>	

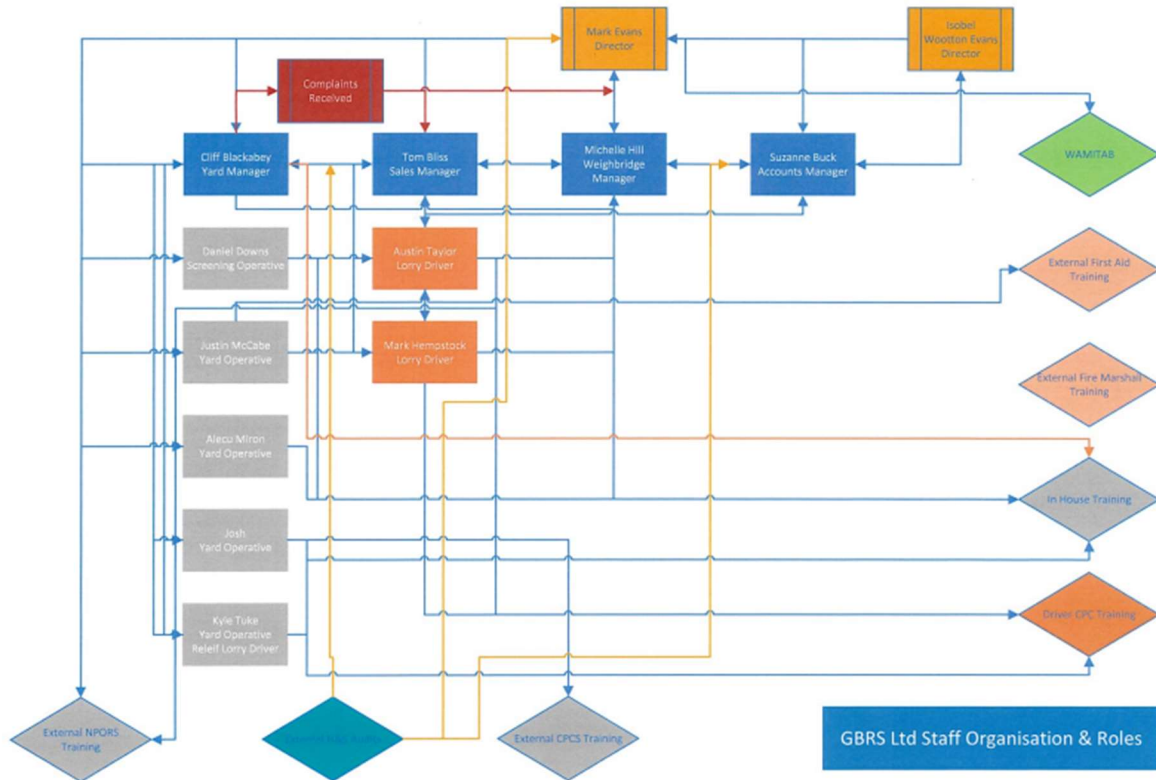
<p>independent (where practicable) internal or external auditing of the management system to confirm it has been properly implemented and maintained</p> <p>Senior managers review the management system to check it is still suitable, adequate and effective.</p> <p>You review the development of cleaner technologies and their applicability to site operations.</p> <p>When designing new plant, you make sure you assess the environmental impacts from the plant's operating life and eventual decommissioning.</p> <p>You must have a written procedure for proposing, considering and approving changes to procedures or infrastructure related to storing or treating waste or pollution control. This is so you can track and control the process of change.</p> <p>You consider the risks a changing climate poses to your operations. You have appropriate plans in place to assess and manage future risks.</p> <p>You compare your site's performance against relevant sector guidance and standards on a regular basis, known as sectoral benchmarking.</p> <p>You have and maintain the following documentation:</p> <p>inventory of emissions to air and water</p> <p>residues management plan</p> <p>accident management plan</p> <p>site infrastructure plan</p> <p>site condition report</p> <p>odour management plan, if required</p> <p>noise and vibration management plan, if required</p> <p>dust management plan, if required</p>	<p>An EMS suitable to the size and simplicity of the installation is to be developed. No</p> <p>The site has moved away from the existing shredder to a quieter more fuel efficient shredder. Furthermore, the site is also using a set of hybrid trommels and hybrid generator to cut down on diesel use which would have localised air quality improvements. Yes</p> <p>The site does not design new plant. N/A</p> <p>This needs to be developed as part of an EMS. No</p> <p>Climate change risk assessment in place. Yes</p> <p>The site is a member of the organics group of the REA and the waste treatment Bref does not specify sectoral benchmarks. These will be monitored if further details are provided. -</p> <p>The site has in place the following:</p> <ul style="list-style-type: none"> • Fire prevention plan • Climate change risk assessment • Dust management plan • Site condition report • Accident management plan <p>No- the site needs to develop the following:</p> <ul style="list-style-type: none"> • Residues management plan • Site infrastructure plan <p>Odour management plan and noise and vibration management plan are not required for this proposed variation.</p> <p>A pest management plan is not in place however a pest control contractor attends site and manages</p>
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<p>pest management plan, if required</p> <p>fire prevention plan, if required</p> <p>climate change risk assessment, if required</p>	<p>pests in accordance with their professional standards.</p>
<p>Your management system must include a schedule of inspection and maintenance for all pollution control infrastructure, including for example the:</p> <p>impermeable surfacing and drainage system</p> <p>ducts of abatement systems</p>	<p>The lagoons are inspected annually in the summer. Any identified issues are repaired immediately they are observed.</p> <p>The yard area is inspected as part of the daily checks. Any defects are repaired on site via concrete patches.</p>
<p>You must have a document control procedure that clearly describes how and when you will periodically review documentation and maintain version control.</p>	<p>This will be required as part of an EMS.</p>
<p>Your management system must clearly set out the actual physical capacity of your facility to store and handle waste, which may be less than the quantity limits allowed by your permit. You must specify limits for the maximum:</p> <p>waste storage capacity at any one time</p> <p>daily and annual throughputs</p> <p>residence time for waste</p> <p>When doing this, you must take into account the characteristics of your facility and the waste types and the pollution risks, for example fire and odour.</p>	<p>The capacities and throughputs are set in the environmental permit and fire prevention plan.</p>
<p>Your limits must also reflect the constraints of the available space and waste handling processes. You must include factors like seasonal changes in supplies of inputs, and markets for outputs. More information on understanding capacity is available in our RGN 2 guidance.</p>	<p>The throughput of the site is generally consistent with slight increases in the summer over winter but nothing requiring additional management arrangements.</p>

3.1.2 STAFF COMPETENCE

The management structure at the site can be seen in Figure 3.1 below.

Figure 3.1 Management Organogram



Arrangements for staff competence can be seen in Table 3.2 below.

Table 3.2 Non-hazardous and inert waste appropriate measures for staff competence

EPR Requirements	Current Arrangements	BAT?
<p>Your site must be operated at all times by an adequate number of staff with appropriate qualifications and competence.</p>	<p>The site is managed by a WAMITAB qualified individual Mark Evans who also has a certificate of technical competence for transport.</p> <p>There is a further WAMITAB qualified individual Tom Bedford who would attend site if Mark is unavailable.</p>	<p>Yes</p>
<p>If you operate a 24-hour process, you must have:</p> <p>remote or telemetric systems to make sure an alarm would be raised in the event of an incident during unmanned hours</p> <p>appropriate personnel on call to deal with these incidents</p>	<p>The site has in place CCTV and has remote monitoring/ motion detection capability also.</p> <p>The site is now operational 7 days per week. Mainly during the hours of 8 to 5 during the week with reduced hours at the weekend.</p> <p>The site is able to be remotely monitored out of hours by:</p> <ul style="list-style-type: none"> • Mark Evans 	<p>Yes</p>

<p>You must explain these procedures in your management system.</p>	<ul style="list-style-type: none"> • Blueline security • Michelle Hill • Tom Bliss <p>These members of staff and the security company are all on call out of hours.</p>
<p>The design, installation and maintenance of infrastructure, plant and equipment must be carried out by competent people.</p>	<p>Any infrastructure would be designed and installed by an appropriate contractor. Mobile plant is maintained by the equipment supplier within the warranty period and by a competent local engineer when outside of warranty period.</p> <p style="text-align: right;">Yes</p>
<p>You must have appropriately qualified managers for your waste activity who are members of a government-approved technical competency scheme.</p>	<p>The site has an appropriately qualified manager in Mark Evans who has WAMITAB and COTC for transport.</p> <p>There is also a deputy (Tom Bedford) who is WAMITAB qualified who can attend site as and when required.</p> <p style="text-align: right;">Yes</p>
<p>Staff carrying out waste acceptance checks, including sampling and analysis of waste, must be appropriately trained and competent to:</p> <p>classify and characterise waste properly</p> <p>identify whether it is suitable for your facility</p> <p>manage any loads that do not conform to waste acceptance criteria</p> <p>determine end of waste products</p>	<p>All staff are trained in the types of wood allowed to be received to the site. Upon arrival at the site the following checks are undertaken:</p> <p>Check the waste transfer number to ensure it matches the pre-acceptance information;</p> <p>The HGV has been unsheeted prior to driving onto the weighbridge and is visually inspected. This is done by camera which can zoom on the load for closer inspection;</p> <p>The load is then tipped under supervision. If there are any non-conformities these can be assessed as to whether any inclusions can be picked and removed or the load is sufficiently non-conforming that it needs to be rejected back onto the vehicle that delivered it.</p> <p style="text-align: right;">Yes</p>

3.1.2 ACCIDENT MANAGEMENT PLAN

Table 3.3 below shows the appropriate measures undertaken at the site with regards to accident management plans.

Table 3.3 Non-hazardous and inert waste appropriate measures for accident management plan

EPR Requirements	Current Arrangements	BAT?
<p>As part of your written management system you must have a <u>plan for dealing with any incidents or accidents</u> that could result in pollution.</p>	<p>The site has in place an accident management plan based on the scale and complexity of the activities undertaken.</p>	<p style="text-align: center;">Yes</p>

<p>The accident management plan must identify and assess the risks the facility poses to human health and the environment.</p> <p>Particular areas to consider may include:</p> <ul style="list-style-type: none"> • waste types • vessels overflowing • failure of plant and equipment (for example over-pressure of vessels and pipework, blocked drains) • failure of containment (for example, bund failure, or drainage sumps overflowing) • failure to contain firefighting water • making the wrong connections in drains or other systems • preventing incompatible substances coming into contact with each other • unwanted reactions and runaway reactions • checking the composition of an effluent before emission • vandalism and arson • extreme weather conditions, such as flooding or very high winds 	<p>The accident management plan assesses the risk to human health and the environment.</p>	<p>Yes</p>
<p>You must <u>assess the risk of accidents and their consequences</u>. Risk is the combination of the likelihood that a hazard will occur, and the severity of the impact resulting from that hazard. Having identified the hazards, you can assess the risks by addressing 6 questions:</p> <ul style="list-style-type: none"> • how likely is it that the accident will happen? • what may be emitted and how much? • where will the emission go – what are the pathways and receptors? 	<p>All of the below are considered within the accident management plan.</p> <p>The waste wood types allowed to be received;</p> <p>The 3 diesel bowsers containing 5,000, 4,000 and 4,000 litres;</p> <p>The ad blue container;</p> <p>Mobile plant and equipment;</p> <p>Lagoons and other containment measures;</p> <p>Site security and access.</p> <p>The diesel tanks are on camera at all times.</p> <p>The site is not subject to flooding and operations are curtailed during high winds although the site is sheltered from the worst of the wind due to the 5-6m earthen embankment surrounding the site.</p>	<p>Yes</p>

<ul style="list-style-type: none"> • what are the consequences? • what is the overall significance of the risk? • what can you do to prevent or reduce the risk? 	
<p>The depth and type of accident risk assessment you do will depend on the characteristics of the plant and its location. The main factors to take into account are the:</p> <ul style="list-style-type: none"> • scale and nature of the accident hazard presented by the plant and its activities • risks to areas of population and the environment (the receptors) • nature of the plant and complexity of the activities, and how difficult it is to decide and justify adequate risk control techniques 	<p>The accident management plan is in accordance with the scale and complexity of the site and its activities and the risk posed by these to human health and the environment.</p> <p style="text-align: right;">Yes</p>
<p>Through your accident management plan, you must also identify the roles and responsibilities of the staff involved in managing accidents. You must give them clear guidance on how to manage each accident scenario, for example, whether to use containment or dispersion to extinguish fires, or let them burn.</p>	<p>The accident management plan identifies the roles and responsibilities of those involved in managing accidents. These will be:</p> <ul style="list-style-type: none"> • Director • Weighbridge Manager • Sales Manager • Yard Manager <p style="text-align: right;">Yes</p>
<p>You must appoint one facility employee as an emergency co-ordinator who will take lead responsibility for implementing the plan. You must train your employees so they can perform their duties effectively and safely and know how to respond to an emergency.</p>	<p>The Director will be the emergency co-ordinator until the emergency services arrives.</p> <p style="text-align: right;">Yes</p>
<p>You must also:</p> <ul style="list-style-type: none"> • establish how you will communicate with relevant authorities, emergency services and neighbours (as appropriate) both before, during and after an accident 	<p>All contact details are in the accident management plan.</p> <p style="text-align: right;">Yes</p>

<ul style="list-style-type: none"> • have appropriate emergency procedures, including for safe plant shutdown and site evacuation • have post-accident procedures that include making an assessment of the harm that may have been caused by an accident and the remediation actions you will take • test the plan by carrying out emergency drills and exercises 	
<p>After a flooding event you must inspect and assess the integrity of affected plant and equipment, in particular infrastructure that may have been in contact with floodwater or groundwater. Tank inspections should include non-destructive testing methods to verify their integrity.</p>	<p>The site is not near a large watercourse likely to flood the site. The site is slightly elevated when compared to the surrounding farmland.</p> <p>Only surface water flooding could impact the site and given the extent of the yard area this would only be shallow with no potential to impact operations or mobile plant.</p> <p style="text-align: right;">Yes</p>
<p>You must take the following measures, where appropriate, to prevent events that may lead to an accident. You must have appropriate procedures set out in your accident management plan.</p>	
<p>You must make sure that you contain the following (where appropriate) and route to the effluent system (where necessary and lawful):</p> <p>process waters site drainage waters emergency firefighting water chemically contaminated waters spillages</p>	<p>There are no process waters generated at site.</p> <p>All waters whether they be site drainage or emergency firewater will be contained in the lagoon.</p> <p style="text-align: right;">Yes</p>
<p>You must have planned for how you will manage the impacts of tidal surges and storm water flows. You must consider abnormal operating scenarios and incidents, for example, by providing buffer storage capacity. You should take into account the:</p> <p>nature of the pollutants potential pathways effects of downstream waste water treatment sensitivity of the receiving environment</p>	<p>The site is not in proximity to the sea and will not be affected by tidal surges.</p> <p style="text-align: right;">N/A</p>
<p>If buffer storage capacity is required, you can only discharge</p>	<p>All water on site is contained within the lagoons. This water is used for</p> <p style="text-align: right;">Yes</p>

<p>from it after you have assessed the water for contamination, in order to identify an appropriate disposal route.</p>	<p>dust control and damping down the wood during shredding. No water is discharged off-site.</p>	
<p>You must implement spill contingency procedures to minimise the risk of an accidental spill entering watercourses or sewers or contaminating land.</p>	<p>Any spills of oil would be managed in accordance with the accident management plan using the spill kits available.</p>	Yes
<p>You must take account of additional firefighting water flows or firefighting foams, as set out in our fire prevention guidance. You may need infrastructure like emergency storage lagoons to prevent contaminated firefighting water from reaching a receiving water body.</p>	<p>The site has lagoons in place which would capture all firefighting water as detailed within the fire prevention plan.</p>	Yes
<p>You must consider and, if appropriate, plan for the possibility that you may need to contain or abate accidental emissions from:</p> <ul style="list-style-type: none"> overflows tank failures tank wall penetrations site plant or machinery leaks 	<p>Any spills of oil would be managed in accordance with the accident management plan using the spill kits available.</p> <p>This would involve stopping the mobile plant. Either stop or repair the leak and clean up the oil. The mobile plant contain a maximum of 3-4 litres of oil for the hydraulics which would be the most likely point of failure.</p>	Yes
<p>You must have security measures (including staff) to prevent unauthorised access to your facility, so preventing:</p> <ul style="list-style-type: none"> damage to equipment theft illicit dumping and fly-tipping arson 	<p>Security measures are in place as described previously.</p>	Yes
<p>Depending on your risk assessment, facilities must use an appropriate combination of:</p> <ul style="list-style-type: none"> security guards total enclosure (usually with fences) controlled entry points lighting warning signs 24 hour surveillance, such as CCTV 	<p>The site uses all these measures with the exception of lighting as the CCTV cameras have lowlight capability.</p>	Yes
<p>If your permit allows you to store or treat combustible waste, you must have a fire prevention plan</p>	<p>The site has in place a fire prevention plan.</p>	Yes

<p>that meets the requirements of our guidance.</p>		N/A
<p>You must maintain plant control in an emergency using one or a combination of:</p> <ul style="list-style-type: none"> alarms trips and interlocks automatic control systems tank level readings such as ultrasonic gauges, high level warnings, process interlocks and process parameters 	<p>The site operates mobile plant rather than fixed plant and these measures are not applicable.</p>	
<p>You must:</p> <ul style="list-style-type: none"> make sure that all the measurement and control devices you would need in an emergency are easy to access and operate in an emergency situation maintain plant in a good state through a preventive maintenance programme and a control and testing programme use techniques such as suitable barriers to prevent moving vehicles damaging equipment implement procedures to avoid incidents due to poor communication between operating staff – during shift changes and following maintenance or other engineering work 	<p>The site operates mobile plant rather than fixed plant and these measures are not applicable.</p>	N/A
<p>You must:</p> <ul style="list-style-type: none"> keep an up to date record of all accidents, incidents, near misses, changes to procedures, abnormal events, and the findings of maintenance inspections carry out investigations into accidents, incidents, near misses and abnormal events and record the steps taken to prevent their reoccurrence maintain an inventory of substances which are present (or likely to be) and which could have environmental consequences if they escape 	<p>The site has in place an accident log for accidents and incidents. These are informally reviewed by management but do not include near misses. The inventory of substances is detailed within the site condition report.</p>	<p>Partial- need to formalise an accident review procedure and account for near miss reporting and investigation.</p>
<p>You must notify the Environment Agency without delay if you detect any of the following events and they are causing, or may cause, significant pollution:</p>	<p>The EA will be notified as soon as possible should any of these instances occur which could cause significant pollution or a breach of an emission limit.</p>	<p>Yes</p>

a malfunction
 a breakdown or failure
 an accident
 emission of a substance not controlled by an emissions limit
 breach of an emissions limit

3.1.3 CONTINGENCY PLAN AND PROCEDURES

Table 3.4 below shows the appropriate measures undertaken at the site with regards to contingency plans.

Table 3.4 Non-hazardous and inert waste appropriate measures for accident prevention measures

EPR Requirements	Current Arrangements	BAT?
<p>You must implement a contingency plan so that you:</p> <p>comply with all of your permit conditions and operating procedures during maintenance or shutdown at your facility, including disruption at other facilities that would affect supplies to your facility or the removal of waste from it</p> <p>do not exceed limits in your permit and continue to apply appropriate measures for storing and handling waste</p> <p>stop accepting waste unless you have a clearly defined method of recovery or disposal and enough permitted capacity</p>	<p>A contingency plan will need to be developed as part of the EMS.</p> <p>The site has good working relationships with the biomass plant that the shredded wood goes to as well as other sites capable of receiving wood should the site have to shut for any length of time.</p> <p>The wood would be diverted to these sites for the duration of the shutdown.</p>	<p>Partial- a contingency plan needs to be developed</p>
<p>You must have contingency procedures to make sure that, as far as possible, you know in advance about any planned shutdowns at waste management facilities to which you send waste.</p>	<p>The contingency plan will include measures to ensure that the site is aware of any planned or unplanned shutdowns at Twinwoods heat and Power Limited.</p>	<p>Yes</p>
<p>You must make your contracted or regular customers aware of your contingency plan and of the circumstances in which you would stop accepting waste from them.</p>	<p>Customers would be notified to divert to other site that can also accept green waste in Milton Keynes and could also make use of a T6 exemption dependent on the nature and timescale of any contingency arrangements.</p>	<p>Yes</p>
<p>You must consider whether the sites or companies you rely on in your contingency plan:</p> <p>can take waste at short notice are authorised to do so in the quantities and types likely to be needed, in addition to carrying out their existing activities</p>	<p>The following sites would be utilised to take any waste wood and are permitted to do so in the quantities required.</p> <p>AW Jenkinson's Silvergen. Direct to Twinwoods Heat and Power Limited.</p>	<p>Yes</p>

<p>If you could exceed your permitted limits, or compromise your storage or handling procedures, you must not discount alternative disposal or recovery options on the basis of extra cost or geographical distance.</p>	<p>The site is extremely unlikely to exceed permitted limits.</p> <p>When Twinwoods Heat and Power Limited was shutdown for 6 months due to a turbine repair wood was managed through sending off to other sites as required until Twinwoods was operational again.</p>	<p>Yes</p>
<p>You must not include unauthorised capacity in your contingency plan. If your contingency plan includes using temporary storage for additional waste at your facility, then you must make sure that your facility is authorised for this storage and you have the appropriate infrastructure in place.</p>	<p>No temporary storage for additional waste proposed.</p>	<p>N/A</p>
<p>Your management procedures and contingency plan must:</p> <ul style="list-style-type: none"> identify your technology's known or predictable malfunctions and the procedures, spare parts, tools and expertise needed to deal with them – so you can minimise predictable malfunctions and fix them quickly include a record of spare parts held, especially critical spares, or state where you can get them from and how long it would take have a defined procedure to identify, review and prioritise items of plant which need a preventative regime include all equipment or plant whose failure could directly or indirectly affect the environment or human health – if the equipment or plant is process critical then you may need to stop accepting waste or shut down your process make sure you have the spare parts, tools, and competent staff needed before you start maintenance 	<p>Mobile plant and not fixed plant used for the shredding of the wood.</p> <p>The shredder is newly purchased under warranty and would be repaired in sufficient time to avoid the need for contingency measures.</p>	<p>Yes</p>
<p>If you produce an end-of-waste material, your contingency planning must consider storage capacity for end-of-waste products and materials that fail the end-of-waste specification.</p>	<p>The waste wood is not subject to an end of waste test. The wood goes into a compliant waste incineration plant.</p>	<p>Yes</p>
<p>Your management system must include procedures for auditing your performance against all of these contingency measures and</p>	<p>An EMS is required to be developed.</p>	<p>No- audit process required to be developed as part of EMS.</p>

for reporting the audit results to the site manager.

3.1.4 PLANT DECOMMISSIONING

Table 3.5 below shows the appropriate measures undertaken at the site with regards to facility decommissioning.

Table 3.5 Non-hazardous and inert waste appropriate measures for facility decommissioning

EPR Requirements	Current Arrangements	BAT?
<p>You must consider how you will decommission the facility at the design stage, and plan how you will minimise risks during decommissioning.</p>	<p>The existing site is operational and these considerations cannot be considered retrospectively.</p> <p>The new yard area would be designed to minimise risks during the life of the site and during decommissioning. The yard will have a sub structure including hard core and packed soil overlain by a membrane then reinforced steel bar 6 inches of pav2 heavy duty yard concrete.</p>	<p>Yes</p>
<p>For existing facilities where potential risks are identified, you must have a programme of design improvements. These design improvements need to make sure you:</p> <ul style="list-style-type: none"> • avoid using subsurface tanks and pipework • drain and clean out vessels and pipework before dismantling • use insulation which you can remove easily without dust or hazard • use recyclable materials, taking into account operational or other environmental objectives 	<p>The site does not utilise subsurface tanks and pipework.</p> <p>The remaining infrastructure is the office portacabins and the hardstanding.</p>	<p>N/A</p>
<p>You must have and maintain a decommissioning plan to demonstrate that:</p> <ul style="list-style-type: none"> • plant will be decommissioned without causing pollution • the site will be returned to a satisfactory condition 	<p>The site does not have a decommissioning plan.</p>	<p>A decommissioning plan will need developing as part of the EMS.</p>
<p>You should identify non-productive or redundant items such as tanks, pipework, retaining walls, bunds, reusable waste containers, ducts, filters and security systems and</p>	<p>The site does not have any non-productive or redundant items in place.</p>	<p>N/A</p>

<p>implement a programme of decommissioning and removal.</p> <p>You should follow our guidance on how land and groundwater should be protected at permitted facilities. You should plan for producing a site condition report, if needed to surrender your permit.</p>	<p>The site has in place a site condition report.</p>	<p>Yes</p>
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3.2 PROCESS EFFICIENCY

Table 3.6 below shows the appropriate measures undertaken at the site with regards to process efficiency.

Table 3.6 Non-hazardous and inert waste appropriate measures for process efficiency

EPR Requirements	Current Arrangements	BAT?
<p>For your installations facility, you must monitor and review the annual quantity of:</p> <ul style="list-style-type: none"> • water, energy and raw materials used • residues and waste water produced <p>You must do this at least once a year.</p>	<p>The site monitors the diesel tank via sensors in the tank.</p> <p>Water and electricity use for the site is very low and is monitored through the bills.</p> <p>These will be reported upon annually under the varied environmental permit when it is issued.</p>	<p>Yes</p>

3.3 ENERGY EFFICIENCY

Table 3.7 below shows the appropriate measures undertaken at the site with regards to energy efficiency.

Table 3.7 Chemical waste appropriate measures for energy efficiency

EPR Requirements	Current Arrangements	BAT?
<p>You must create and implement an energy efficiency plan at your facility. This must:</p> <ul style="list-style-type: none"> • define and calculate the specific energy consumption of the activity (or activities) you do and waste stream(s) you treat • set annual key performance indicators – for example, specific energy consumption (expressed in kWh/tonne of waste processed) 	<p>The site utilises no gas as there is no connection.</p> <p>Electricity is used only for the offices.</p> <p>Energy use is monitored and reviewed at least annually with the annual management review.</p> <p>The following energy efficient measures have been adopted at the site:</p> <p>All lighting in cabins and office areas is LED</p> <p>The yard lighting is also LED</p> <p>In winter the site closes earlier to limit staff in darkness and reduces overall light usage.</p> <p>There is no use of site lighting as part of security arrangements as the</p>	<p>Yes</p>

<ul style="list-style-type: none"> plan periodic improvement targets and related actions 	<p>CCTV cameras operate on low light and don't require lighting.</p> <p>An energy efficiency plan is not considered necessary given the low use of electricity and the fact that the site does not utilise gas at all.</p>	
<p>You must regularly review and update your energy efficiency plan as part of your facility's management system.</p>	<p>Energy use is monitored and reviewed at least annually with the annual management review.</p>	Yes
<p>You must have and maintain an energy balance record for your facility. This must provide a breakdown of your energy consumption and generation (including any energy or heat exported) by the type of source (electricity, gas, conventional liquid fuels, conventional solid fuels and waste). You should provide Sankey diagrams or energy balances to show how energy is used in your waste treatment processes.</p>	<p>Electricity or gas is not used within the waste treatment process.</p> <p>The mobile plant only utilise diesel which is measured and monitored through the sensor on the tank.</p> <p>An energy balance is not considered necessary given the low use of electricity and the fact that it is not used within the waste treatment process and the site does not utilise gas at all.</p>	Yes
<p>You must regularly review and update your energy balance record as part of your facility's management system, alongside the energy efficiency plan.</p>	<p>Electricity or gas is not used within the waste treatment process.</p> <p>The mobile plant only utilise diesel which is measured and monitored through the sensor on the tank.</p> <p>An energy balance is not considered necessary given the low use of electricity and the fact that it is not used within the waste treatment process and the site does not utilise gas at all.</p>	Yes
<p>You must have operating, maintenance and housekeeping measures in place in relevant areas, for example for:</p> <ul style="list-style-type: none"> air conditioning, process refrigeration and cooling systems (leaks, seals, temperature control, evaporator or condenser maintenance) the operation of motors and drives compressed gas systems (leaks, procedures for use) steam distribution systems (leaks, traps, insulation) space heating and hot water systems lubrication to avoid high friction losses 	<p>The site does not operate any of this type of equipment.</p>	N/A

<ul style="list-style-type: none"> boiler operation and maintenance, for example, optimising excess air other maintenance relevant to the activities within the facility 		
<p>You must have measures in place to avoid gross energy inefficiencies. These should include, for example:</p> <ul style="list-style-type: none"> insulation containment methods (such as seals and self-closing doors) avoiding unnecessary discharge of heated water or air (for example, by fitting timers and sensors) 	<p>The site does not use gas and has limited electrical use.</p> <p>The site has just invested in more fuel efficient equipment with the use of hybrid trommels and hybrid generator to reduce diesel consumption.</p>	Yes
<p>You should implement additional <u>energy efficiency measures</u> at the facility as appropriate, following our guidance.</p>	<p>If any energy efficiency measures are identified as part of annual management review then these will be assessed for payback period and where appropriate implemented.</p>	Yes

3.4 EFFICIENT USE OF RAW MATERIALS

Table 3.8 below shows the appropriate measures undertaken at the site with regards to efficient use of raw materials.

The site utilises the following per annum based on 2021 figures:

Diesel	251,787 litres
Ad blue	10,000 litres
Oil usage	7,500 litres
Anti-freeze	1,000 litres

Table 3.8 Non-hazardous and inert waste appropriate measures for raw materials

EPR Requirements	Current Arrangements	BAT?
<p>You must maintain a list of the raw materials used at your facility and their properties. This includes auxiliary materials and other substances that could have an environmental impact.</p>	<p>The list of potentially polluting raw materials used at the site is detailed within the site condition report.</p> <p>The site makes use of a limited number of raw materials which mainly relate to the operation of the shredder and mobile plant. These are:</p> <p>Diesel, antifreeze, screen wash, hydraulic oil and engine oil. Petrol is used for engine pumps.</p> <p>These are used in limited quantities per year with the exception of the diesel.</p>	Yes

<p>You must regularly review the availability of alternative raw materials and use any suitable ones that are less hazardous or polluting. This should include, where possible, substituting raw materials with waste or waste-derived products.</p>	<p>There will be a limited number of raw materials in use at the site.</p> <p>These will mainly relate to the operation of the shredder and mobile plant.</p> <p>Therefore, the raw materials will be oils, anti-freeze and screen wash.</p> <p>Annual management review will address the opportunity to reduce the raw material use through consideration of electric/hybrid mobile plant over gas/oil powered mobile plant etc.</p>	<p>Yes</p>
<p>You must justify the continued use of any substance for which there is a less hazardous alternative.</p>	<p>This will be assessed and considered annually along with the reasons for the continued use of the raw material.</p>	<p>Yes</p>
<p>You must have quality assurance procedures in place to control the content of raw materials.</p>	<p>All material purchased are in accordance with manufacturer recommendations for the mobile plant.</p>	<p>Yes</p>

3.5

WATER USE

Table 3.9 below shows the appropriate measures undertaken at the site with regards to efficient use of water.

Table 3.9 Non-hazardous and inert waste appropriate measures for water use

EPR Requirements	Current Arrangements	BAT?
<p>You must make sure you optimise water consumption to:</p> <ul style="list-style-type: none"> • reduce the volume of wastewater you generate • prevent or, where that is not practicable, reduce emissions to soil and water 	<p>Water use at site is only for domestic consumption.</p> <p>Any water falling on the yard area is directed to the lagoons. This is then used for dust control, wetting the compost as part of the PAS100 treatment process and for adding into the shredder whilst shredding as a dust control measure.</p>	<p>Yes</p>
<p>Measures you must take include:</p> <ul style="list-style-type: none"> • implementing a water saving plan (involving establishing water efficiency objectives, flow diagrams and water mass balances) • optimising the use of wash waters (for example, dry cleaning instead of hosing down and using trigger controls on all washing equipment) • recirculating and reusing water streams within the plant or 	<p>The site recirculates and reuses water as detailed above.</p> <p>All surface water on site is captured and used within the process. There are no discharges from site.</p> <p>All domestic effluent is captured in a septic tank which is periodically emptied.</p> <p>A water efficiency plan and water balance are not considered necessary given the uses of water at the site and the fact that water use is rainwater fed and dependent on a variable supply.</p>	<p>Yes</p>

<p>facility, if necessary after treatment</p> <ul style="list-style-type: none"> reducing the use of water for vacuum generation (for example, using liquid ring pumps with high boiling point liquids), where relevant 	
<p>You must review water use (a water efficiency audit) at least every 4 years.</p>	<p>Water use is reviewed at the annual management review. Yes</p> <p>If water use becomes significant then an audit will be undertaken at least every 4 years.</p>
<p>You must also:</p> <ul style="list-style-type: none"> produce flow diagrams and water mass balances for your activities establish water efficiency objectives and identify constraints on reducing water use beyond a certain level (usually this will be site specific) identify the opportunities for maximising reuse and minimising use of water have a timetabled improvement plan for implementing additional water reduction measures 	<p>The site recirculates and reuses water as detailed above. Yes</p> <p>All surface water on site is captured and used within the process. There are no discharges from site.</p> <p>All domestic effluent is captured in a septic tank which is periodically emptied.</p> <p>A water efficiency plan and water balance are not considered necessary given the uses of water at the site and the fact that water use is rainwater fed and dependent on a variable supply.</p>
<p>To reduce water use and associated emissions to water, you should apply these general principles in sequence:</p> <ul style="list-style-type: none"> use water efficient techniques at source where possible reuse water within the process, by treating it first if necessary – if not practicable, use it in another part of the process or facility that has a lower water quality requirement if you cannot use uncontaminated roof and surface water in the process, you should keep it separate from other discharge streams – at least until after you have treated the 	<p>The site does not generate process water for reuse. Yes</p> <p>The site recirculates and reuses water as detailed above.</p> <p>All surface water on site is captured and used within the process. There are no discharges from site.</p>

contaminated streams in an effluent treatment system and have carried out final monitoring		
You should establish the water quality requirements associated with each activity and identify whether you can substitute water from recycled sources. Where you can, include it in your improvement plan.	The water requirement for the PAS100 treatment, water addition to the shredder and dust control can be undertaken by captured rainwater falling on the yard without the need for potable sources.	Yes
Where there is scope for reuse (possibly after some form of treatment) you should keep less contaminated water streams, such as cooling waters, separate from more contaminated streams.	The only water streams to be generated as part of this variation are from the collection of surface water falling on the yard area. This will be reused for the purposes described above.	Yes
You must minimise the volume of water you use for cleaning and washing down by: <ul style="list-style-type: none"> • vacuuming, scraping or mopping in preference to hosing down • reusing wash water (or recycled water) where practicable • using trigger controls on all hoses, hand lances and washing equipment 	All water on site is reused for dust control, wetting the compost as part of the PAS100 treatment process and for adding into the shredder whilst shredding as a dust control measure. Trigger hoses are used for washing down of mobile plant when cleaned.	Yes
You must directly measure fresh water consumption and record it regularly at every significant usage point, ideally on a daily basis.	Water use is metered on site for potable uses in the welfare facilities.	Yes

3.6 WASTE MINIMISATION, RECOVERY AND DISPOSAL

Table 3.10 below shows the appropriate measures undertaken at the site with regards to waste minimisation recovery and disposal.

Table 3.10 Non-hazardous and inert waste appropriate measures for waste minimisation, recovery and disposal

EPR Requirements	Current Arrangements	BAT?
You must have and implement a residues management plan that: <ul style="list-style-type: none"> • minimises the generation of residues from waste treatment • optimises the reuse, regeneration, recycling or energy recovery of residues, including packaging • makes sure you properly dispose of 	A specific Residues Management Plan is not in place for the site as, due to the nature of the waste accepted and the process undertaken at the facility, limited residues are produced as the fines can be accepted at Twinwoods as the plant is capable of combusting them.	N/A- slow speed shredder limits fines production and Twinwoods is capable of taking the fines.

<p>residues where recovery is technically or economically impractical</p>	
<p>Where you must dispose of waste, you must do a detailed assessment to identify the best environmental options for waste disposal.</p>	<p>The only waste generated at site are 2 general waste council bins, a scrap metal bin and dry recyclables bin. The scrap metals and dry recycling bins are sent for recycling.</p> <p style="text-align: right;">Yes</p>
<p>You must regularly review options for recovering and disposing of waste produced at the facility. You must do this as part of your management system to make sure you are using the best environmental options and promoting the recovery of waste where technically and economically viable.</p>	<p>Waste disposal routes for the waste generated at the site are well understood and established.</p> <p style="text-align: right;">Yes</p>

4

BEST AVAILABLE TECHNIQUES WASTE MANAGEMENT

4.1 PRE-ACCEPTANCE PROCEDURES

Waste pre-acceptance procedures to assess waste will be reviewed and updated to ensure that they remain compliant with appropriate measures guidance and are detailed in Table 4.1 below.

Table 4.1 Non-hazardous and inert waste appropriate measures for waste pre-acceptance

EPR Requirements	Current Arrangements	BAT?
<p>You must implement waste pre-acceptance procedures so that you know enough about a waste (including its composition) before it arrives at your facility. You need to do this to assess and confirm the waste is technically and legally suitable for your facility. Your procedures must follow a risk-based approach, considering:</p> <ul style="list-style-type: none"> the source and nature of the waste potential risks to process safety, occupational safety and the environment (for example, from odour and other emissions) knowledge about the previous waste holder 	<p>The waste wood is generally from household waste recycling centres. Where the wood is from waste transfer stations or a skip company then the waste has been pre-sorted. The wood waste has been received since 2005 from the majority of the suppliers so the wood supply is well understood.</p>	Yes
<p>Some facilities receive waste on an ad hoc basis. In those instances pre-acceptance checks can still be carried out before the waste is accepted. For example, through the exchange of information at the weighbridge before acceptance on site.</p>	<p>Most waste wood is received from known sources which has been supplying the site across multiple years.</p> <p>If an ad hoc load is requested to be received then the usual process is to get photos of the waste, EWC codes and quantities.</p> <p>Upon arrival at site they would go through the waste acceptance procedures and if not in line with the waste as described it will be rejected back to supplier.</p>	Yes
<p>When you receive a customer query, and before the waste arrives at your facility, you must get enough information from the waste producer to satisfy yourself that the waste has been properly</p>	<p>This will be requested from the waste producer otherwise they will be not legally able to carry or move the waste under their duty of care.</p>	Yes

<p>assessed and classified as set out in WM3.</p>	
<p>In the case of household and similar non-household waste (including skip waste) waste is pre-accepted by the terms and conditions of the contract in place (for example skip waste companies excluding fridges and freezers or hazardous wastes). There should also be a visual pre-acceptance check before removal from the producer's premises.</p>	<p>The waste wood is from HWRC and skip companies and not municipal type waste. Yes</p> <p>The waste is received in accordance with contracted requirements. Waste is often received on council transport. However, the waste from HWRC with regards the wood fraction is well understood as detailed in the RPS 249, otherwise this RPS would not have been approved.</p>
<p>For commercial and industrial waste you must get the following information in writing or electronic form:</p>	<p>For each load of waste accepted the following information is gathered: Yes</p>
<p>details of the waste producer including their organisation name, address and contact details</p> <ul style="list-style-type: none"> • a description of the waste • the waste classification code (also referred to as a List of Waste (LoW) or European Waste Classification code • the source of the waste (the producer's business and the specific process that has created the waste) • information on the nature and variability of the waste production process • information about the history of the producer site if it may be relevant to the classification of the waste (for example soils and other construction and demolition arisings from a site contaminated by previous industrial uses) • the waste's physical form • the waste's composition (based on representative samples if necessary) • a description of the waste's odour and whether it is likely to be odorous • an estimate of the quantity you expect to 	<ul style="list-style-type: none"> • the Source; • EWC Code; and • Waste Description/characterisation <p>As all of the waste wood suppliers are well known and have supplied the site across a number of years the type of wood to be received is clearly understood.</p> <p>Furthermore, the wood received is non-hazardous as it is from domestic sources.</p>

<p>receive in each load and in a year</p> <p>For mirror entry LoW codes (as defined in WM3), you must keep the evidence that you have made an assessment of the waste to assign the relevant mirror entry code.</p>	
<p>You do not need to have sample information if the origin of the waste is reliably understood and it clearly shows that the waste is non-hazardous. However, a visual assessment alone will not be enough to assess whether mirror entry waste is hazardous or not.</p>	<p>As all of the waste wood suppliers are well known and have supplied the site across a number of years the type of wood to be received is clearly understood.</p> <p>Furthermore, the wood received is non-hazardous as it is from domestic sources.</p> <p>This is further reinforced by RPS 249.</p> <p style="text-align: right;">Yes</p>
<p>If the waste is a mirror entry and has not been properly assessed, you must assume it is the hazardous entry as a precautionary measure. This is likely to mean that you cannot accept it at your facility. The pre-acceptance information should be verified by contacting or visiting the producer. Dealing with staff directly involved in waste production can help to fully characterise a waste.</p>	<p>The research shown for the development of RPS 249 that any hazardous material is not significant and is below the threshold which would make the whole load considered hazardous.</p> <p style="text-align: right;">Yes</p>
<p>Analysis of samples must be carried out by laboratories who are UKAS or MCERTs accredited for the prescribed test.</p>	<p>All samples tested are sent to Alfred H Knight which is a UKAS accredited laboratory certificate 1765. This is undertaken monthly by the biomass incineration plant and quarterly by Growing Beds.</p> <p style="text-align: right;">Yes</p>
<p>After a waste has been properly assessed and classified, you must technically assess the waste's suitability for storage and treatment at your facility to make sure you can meet your permit conditions. You must make sure that the waste complies with your facility's treatment capabilities and you are permitted to take that waste.</p>	<p>The waste to be received is wood and is checked upon acceptance that there is no deviation from this otherwise it would be rejected.</p> <p style="text-align: right;">Yes</p>
<p>You must keep pre-acceptance records for at least 3 years, with records preferably held electronically, following receipt of the waste. If an enquiry does not lead to receipt of the waste, you do not need to keep records.</p>	<p>All records are retained. Financial records are held for 7 years with waste transfer notes held for 2 years currently. This will be increased to 3 years in accordance with this condition.</p> <p style="text-align: right;">Yes</p>
<p>You must reassess the information required at pre-acceptance if the:</p>	<p>Any waste stream would be reevaluated if any changes with regards to the source of wood or supplier. In most instances the wood</p> <p style="text-align: right;">Yes</p>

<p>waste changes process giving rise to the waste changes</p> <p>waste received does not conform to the pre-acceptance information</p> <p>In all cases you must reassess the information required at pre-acceptance on an annual basis.</p> <p>When you agree that you will accept waste from a customer, you should decide and record what parameters you will check at the acceptance stage. The checks could be visual, physical, chemical and odour-based parameters. You must also record the criteria for non-conformance or rejection. The person checking the waste for acceptance can also decide on their own additional parameters.</p>	<p>has been received in the same way and from the same supplier over a number of years.</p> <p>However, the EMS to be installed will include a commitment to review waste received from all parties on at least an annual basis.</p>	
	<p>The checks would be the same as for existing customers and is detailed in Table 4.2 below.</p>	Yes

4.2 ACCEPTANCE PROCEDURES

Waste acceptance procedures to assess waste will remain unchanged from that assessed during previous environmental permit determinations. These are detailed in Table 4.2 below.

Table 4.2 Non-hazardous and inert waste appropriate measures for waste acceptance

EPR Requirements	Current Arrangements	BAT?
<p>You must implement waste acceptance procedures to check that the characteristics of the waste received matches the information provided to you during waste pre-acceptance. This is to confirm the waste is as expected and that you can accept it. If the waste does not conform to the pre-acceptance information, you may still be able to accept the waste, but you must confirm first that your permit allows it and that your facility can handle it appropriately. Otherwise, you must reject the waste.</p>	<p>The site has a waste acceptance procedure in place. The following checks are undertaken as part of this procedure.</p> <ul style="list-style-type: none"> • Driver Induction (For new people on site). • Waste Carriers Licence Copied for our records. • Driver hands over Waste Transfer Note. • The Source, EWC Code and Waste Description will be checked to make sure the waste conforms to its description and is on the acceptable wastes for the facility. • This information is entered onto the GBRS Ltd Weighbridge System. • The downward camera view will be checked showing the waste in the vehicle to identify any non-conforming items. If all ok vehicle is directed to the correct waste area to tip. • If non-conforming items are found the vehicle will be 	Yes

	<p>directed to a separate area of the yard and the yard staff informed to further investigate.</p> <ul style="list-style-type: none"> • If the load is found to be highly contaminated it will be rejected and loaded back onto the vehicle for immediate removal on site. • If the load is only partly contaminated the customer will be informed and given the option for GBRs Ltd Staff to remove the non-conforming items. • Once the vehicle is tipped it will proceed back onto the weighbridge. • The driver will report to the weighbridge and receive his final weighbridge ticket. 	
<p>Your procedures should follow a risk-based approach, considering:</p> <ul style="list-style-type: none"> • the source, nature and age of the waste • potential risks to process safety, occupational safety and the environment (for example, from odour and other emissions) • the potential for self-heating • knowledge about the previous waste holder(s) 	<p>As all of the waste wood suppliers are well known and have supplied the site across a number of years the type of wood to be received is clearly understood.</p> <p>Furthermore, the wood received is non-hazardous as it is from domestic sources. This is further reinforced by RPS 249.</p>	<p>Yes</p>
<p>When deciding whether to accept waste, you must also check that the relevant storage areas and treatment processes in your facility have the physical capacity needed to handle the waste. You must not accept waste if this capacity is not available, or if you would breach your permit by doing so.</p>	<p>The site is continually moving material to Twinwoods Heat and Power Limited which will free up space to accept the waste to be received.</p> <p>If the site is full in accordance with the amount of wood to be retained then this could either be delivered later in agreement with the council when there is space or redirected to another site as described before.</p>	<p>Yes</p>
<p>You must visually check wastes and verify them against pre-acceptance information and transfer documentation before you accept them on site. The extent of the initial visual check is based on the waste type and how it is packaged.</p>	<p>Checked as described above.</p>	<p>Yes</p>
<p>You must check and validate all transfer documentation and resolve discrepancies before you</p>	<p>Checked as described above.</p>	<p>Yes</p>

<p>accept the waste. If you believe the incoming waste classification or description is incorrect or incomplete, then you must address this with the original waste producer or waste carrier (or both) during waste acceptance. You must record any non-conformance. If you have assessed the waste as acceptable for on-site storage or treatment, you must document this.</p>	
<p>You must have clear criteria that you use to identify non-conforming wastes and wastes to be rejected. You must also have written procedures for recording, reporting and tracking non-conforming and rejected wastes. These must include:</p> <ul style="list-style-type: none"> • using quarantine storage • notifying the relevant customer or waste producer • recording a summary of your justification for accepting non-conforming waste in your electronic (or equivalent) system <p>You must take measures to prevent the recurrence of non-conforming and rejected wastes.</p>	<p>All waste received not as described will be rejected as it should be waste wood only. Any load with significant inclusions would be rejected or sorted in quarantine area at the cost of the waste supplier.</p> <p>Non-conforming materials list includes:</p> <ul style="list-style-type: none"> • Paper • Plastics • Fabrics • General Rubbish • Rubble or Soil • Glass • Green Waste (Organics) • Foam & Polystyrenes • Litter / Dry Recyclables <p>Any rejected loads will be notified to the council or company that sent the waste to the site with the reason why it was rejected.</p>
<p>Where you reject waste which has been classified as hazardous, you must follow the procedure set out in our rejected loads guidance.</p>	<p>The wood to be received is non-hazardous and any inclusions from a HWRC would not alter this status.</p>
<p>You must weigh each load of waste on arrival to confirm the quantities against the accompanying paperwork, unless alternative reliable and representative systems are available (for example, based upon density and volume). You must record the weight in your electronic or equivalent systems, so you can monitor available capacity at your facility. Records of incoming waste are not required for waste from householders deposited at Household Waste Recycling Facilities.</p>	<p>All vehicles are weighed upon arrival and departure from site to determine the net weight of the wood delivered.</p> <p>This will be checked against the delivery paperwork for any inaccuracies.</p>
<p>The person carrying out waste acceptance checks must be</p>	<p>All staff who undertake waste acceptance are trained in their duties and</p>

trained to effectively identify and manage any non-conformances in the loads received, so you comply with your Duty of Care for waste and your permit conditions.	the requirements of the permit when it is issued.	
Your procedures must make sure that your staff watch waste being unloaded, so you can quarantine the waste if necessary before it is mixed with other material.	As described above upon acceptance it is checked by a down looking CCTV camera at the weighbridge then as it is unloaded by yard staff and it will either be rejected back onto the delivering vehicle or sorted at the cost of the waste supplier if found to be non-compliant.	Yes
Offloading and reception areas must have an impermeable surface with self-contained drainage, to prevent any potentially polluting liquid from escaping off site. This requirement does not apply if your facility's permit allows only inert wastes and does not require impermeable surfacing with self-contained drainage.	The waste offloading area is on an impermeable surface. All surfaced areas drain to a sump which pumps to the lagoon when a certain level is reached. The yard is surrounded by kerbing.	Yes

4.3

QUARANTINE

Quarantine arrangements for the site are detailed in Table 4.3 below.

Table 4.3 Non-hazardous and inert waste appropriate measures for waste tracking

EPR Requirements	Current Arrangements	BAT?
Your facility must have a dedicated waste quarantine area or areas which you use to temporarily store waste being rejected, or non-conforming waste whilst it is being assessed. Quarantine areas must have impermeable surface with self-contained drainage if there is a risk of contaminated runoff from the quarantined waste.	The site has a quarantine area as detailed within the fire prevention plan where non-compliant loads can be checked.	Yes
Where there is a risk of fugitive emissions from quarantined waste you must store it in closed or covered containers or within a building.	All waste wood in quarantine would be unshredded and not prone to become a fugitive emission as it is too large to become windborne.	Yes
Quarantine storage must be separate from all other storage and clearly marked as a quarantine area.	See quarantine area details in fire prevention plan. This is a dedicated area for quarantine purposes only.	Yes
You should store the waste in quarantine in closed containers or cover it to prevent emissions if appropriate. For example, you should sheet quarantined contaminated soil or store it in a covered skip to prevent rainfall	All waste wood in quarantine would be unshredded and not prone to become a fugitive emission as it is too large to become windborne.	N/A

<p>or wind from mobilising pollutants.</p> <p>You must have written procedures for dealing with wastes held in quarantine, including a maximum storage volume. The maximum storage time must take account of the potential for odour generation, pest infestation and storage conditions. If the waste is infested or odorous you must remove it within 24 hours or sooner.</p>	<p>These details are in the fire prevention plan.</p>	<p>Yes</p>
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4.4 WASTE TRACKING

Waste tracking arrangements for the site are detailed in Table 4.4 below.

Table 4.4 Non-hazardous and inert waste appropriate measures for waste tracking

EPR Requirements	Current Arrangements	BAT?
<p>You should use an electronic or equivalent system to hold up-to-date information about the available capacity of different parts of your facility, for example reception, quarantine, treatment and storage areas. If you do not have an electronic system you still need to hold the equivalent level of information. You should use a pre-booking system to make sure that you have enough waste storage and process capacity for the incoming acceptable waste.</p> <p>Your electronic or equivalent system must hold all the information generated during:</p> <ul style="list-style-type: none"> • pre-acceptance • acceptance • non-conformance or rejection • storage • repackaging • treatment • removal off site <p>This information must be readily accessible.</p> <p>You must create records and update them to reflect deliveries, on-site treatment and despatches. Your tracking system will also operate as a waste inventory and stock control system, including both wastes and end-of-waste</p>	<p>Waste transfer note is put on the computer system. This details:</p> <ul style="list-style-type: none"> ▪ Waste provider ▪ Weight in ▪ Weight out ▪ Net weight ▪ Vehicle registration ▪ Haulier ▪ Driver ▪ Date ▪ Time <p>Any other relevant information would be associated with this information.</p>	<p>Yes</p>
<p>You must create records and update them to reflect deliveries, on-site treatment and despatches. Your tracking system will also operate as a waste inventory and stock control system, including both wastes and end-of-waste</p>	<p>All records are detailed as above.</p> <p>The weights in and out are all monitored. Furthermore, the only waste accepted is waste wood and this is treated via</p>	<p>Yes</p>

<p>materials produced at your facility. It must include this information as a minimum:</p> <ul style="list-style-type: none"> • the date the waste arrived on site • the original producer's details (or unique identifier) • a unique reference number • waste pre-acceptance and acceptance information • the package type and size • the intended treatment or disposal route • the nature and quantity of wastes held on site • where the waste is physically located on site • where the waste is in the designated recovery or disposal process • identifying the staff who have taken any decisions about accepting or rejecting waste streams and who have decided on recovery or disposal options • details that link waste to relevant transfer notes • details of any non-conformances and rejections, including consignment notes for waste rejected because it is hazardous 	<p>shredding as soon as practical and moved off-site.</p> <p>Each delivery is also given a unique ticket number to identify it.</p>
<p>The electronic (or equivalent) system must be able to report for each of LoW code:</p> <ul style="list-style-type: none"> • the total quantity of waste present on site at any one time • a breakdown of the waste quantities you are storing pending on-site treatment or awaiting onward transfer • where a batch of waste is located based on a site plan 	<p>Growing Beds will develop a system for monitoring tonnages and locations of waste retained on site to ensure that permitted limits are not exceeded.</p> <p>The 2 new bays are expected to</p> <p style="text-align: right;">Yes- when implemented</p>

<ul style="list-style-type: none"> the quantity of waste on site compared with the limits in your management system and permit the length of time the waste has been on site compared with the limits in your management system and permit <p>The electronic (or equivalent) system must also be able to report the total quantity of end-of-waste materials on site at any one time, and where that material is located based on the site plan.</p> <p>You must store back-up copies of records off site. These records must be readily accessible in an emergency.</p> <p>You must keep acceptance records for a minimum of 2 years after you have treated the waste or removed it off site. You may have to keep records for longer if they are required for other purposes, for example hazardous waste consignment notes.</p>		
	No end of waste materials associated with this variation.	N/A
	End of waste PAS100 would be stored on the new yard area but that process is not subject to this application.	
	All records are backed up to an off-site server.	Yes
	All records will be stored in accordance with this requirement.	Yes

4.5

WASTE STORAGE

Waste storage arrangements are detailed in Table 4.5 below.

Table 4.5 Non-hazardous and inert waste appropriate measures for waste storage

EPR Requirements	Current Arrangements	BAT?
You must have waste storage and handling procedures. You must store and handle waste in a way that makes sure you prevent and minimise pollution risks by using appropriate measures.	<p>All waste wood is handled in the same way in that it is received to the pad area, shredded to bay then loaded into walking floor HGV for delivery off-site.</p> <p>Metal is removed by magnet from the shredder and is stored in a skip for sending off-site for recycling.</p> <p>All staff are trained in this and have full knowledge about how this waste type is handled.</p>	Yes
You must store waste in locations that minimise the unnecessary handling of waste.	<p>All wood waste to be shredded is stored co-located to the bays so that it is stored, shredded to bay then removed to bay to walking floor transport for delivery to the biomass incineration plant.</p> <p>This limits the number of times the wood is handled.</p>	Yes
Waste handling must be carried out by competent staff using	All movement and handling of waste wood is undertaken by trained yard staff,	Yes

<p>appropriate equipment. You must use mechanical unloading technologies where it is possible, safe and practicable to do so.</p>	<p>supervised by a trained yard manager with mobile plant which the staff have been trained to use.</p>	N/A
<p>Where possible, you should locate storage areas away from watercourses and sensitive perimeters, for example those close to public rights of way, housing or schools. You must store all waste within the security protected area of your facility to prevent unauthorised access and vandalism.</p>	<p>The site is set in a very rural area with no sensitive receptors near the site boundary nor a watercourse in close proximity to the site.</p>	N/A
<p>You must clearly document in your management system the maximum storage capacity of your facility and its designated storage areas. You must regularly monitor the quantity of stored waste against the allowed maximum capacities, and not exceed them. You must define capacity in terms of, for example:</p>	<p>This is detailed within the fire prevention plan which is a part of the management system.</p>	Yes
<ul style="list-style-type: none"> • cubic metres or tonnage • numbers of skips or other containers • maximum tank or vessel capacities 		
<p>You should clearly mark all waste storage areas and provide signs indicating the type of waste stored there.</p>	<p>The storage areas will be marked for the type of wood to be stored e.g shredded/unshredded.</p>	Yes
<p>You must not accumulate wastes. You must treat wastes or remove them from the site as soon as possible. You must prioritise the treatment or off-site transfer of waste based on:</p>	<p>As all waste to be stored in the bays is waste wood it is not necessary to label it further.</p>	
<ul style="list-style-type: none"> • its type • its age on arrival • the date of arrival • the duration of storage on site 	<p>The site will accept waste wood only as part of this variation and will move it on to the biomass incineration plant on a first in first out basis.</p> <p>The maximum storage time for whole wood at site will be three months. Should Twinwoods Heat and Power Limited have an extended maintenance period then alternate sites would be sought for the wood.</p>	Yes
<p>Except for inert waste, you must follow the first-in-first-out principle, unless you need to prioritise more recently received wastes because they pose a higher risk of pollution.</p>	<p>All waste wood is moved on a first in first out basis.</p>	Yes

<p>You must minimise refuse derived fuel (RDF) and solid recovered fuel (SRF) storage durations. You must implement an auditable bale identification system so that you can remove bales in date order.</p>	<p>These are not stored at site.</p> <p style="text-align: right;">N/A</p>
<p>You must securely wrap bales of RDF and SRF with high-density polyethylene (HDPE) membrane or equivalent. This is to prevent water entering, access by pests and odour release. You should inspect bales regularly and rewrap any that are damaged. If they are wrapped securely, you can store them outside (unless your permit forbids this). If you store bales outside, your fire prevention plan must manage the risks from solar heating during hot weather.</p>	<p>These are not stored at site.</p> <p style="text-align: right;">N/A</p>
<p>You must thoroughly clean storage bays and containers on a regular basis to prevent the build-up of aging waste, which will be a source of odour and attract vermin.</p>	<p>All bays are emptied out when loading the walking floors ready to be the new active bay for shredded wood. In between being emptied and used for new shredded material the corners of the bay are swept to ensure that no residual wood dust is left to degrade in the corners.</p> <p style="text-align: right;">Yes</p>
<p>All waste containers must be fit for purpose, that is:</p> <ul style="list-style-type: none"> • in sound condition • not corroded, if metal • have well-fitting lids • suitable for the contents • with caps, valves and bungs in place and secure • within the manufacturer's designed lifespan, particularly for plastic containers 	<p>No waste containers used for the shredded waste wood.</p> <p style="text-align: right;">N/A</p>
<p>You must inspect storage areas, containers and infrastructure regularly to make sure there is no loss of containment. You must deal with any issues immediately. You must keep written records of the inspections. You must clean up and log any spillages of waste.</p>	<p>The site is subject to a daily check which would identify any defects which would be logged in the site log and addressed as required.</p> <p style="text-align: right;">Yes</p>

4.6 WASTE SEGREGATION

Waste segregation arrangements are detailed in Table 4.6 below.

Table 4.6 Non-hazardous and inert waste appropriate measures for waste segregation

EPR Requirements	Current Arrangements	BAT?
You should keep different types of waste segregated if contamination would inhibit the recovery of the waste.	All waste to be handled as part of this variation is non-hazardous waste wood only and therefore does not need segregation from itself.	Yes
Where paper, plastic, metal or glass have been collected separately, they must not be mixed with other waste or material. This duty applies where you are required to keep wastes separate and to help with or improve waste recovery.	Waste wood only.	N/A

4.7 WASTE TREATMENT

Waste treatment arrangements at site are detailed in Table 4.7 below.

Table 4.7 Non-hazardous and inert waste appropriate measures for waste treatment

EPR Requirements	Current Arrangements	BAT?
Waste treatment must have a clear and defined benefit. You must fully understand, monitor and optimise your waste treatment process to make sure that you treat waste effectively and efficiently. The treated output material must meet your expectations and be suitable for its intended disposal or recovery route. You must identify and characterise emissions from the process and take appropriate measures to control them at source.	All waste wood is shredded in a slow speed, low noise low dust shredder to a defined specification for a biomass waste incineration plant. The only potential emissions from the process and these are suitably controlled.	Yes
You must prevent unwanted or unsuitable material from entering subsequent waste treatment processes.	Waste wood only to be treated. Waste pre-acceptance and acceptance checks ensures that there is no chance of unsuitable material being accepted to the process.	Yes
You must have up-to-date written details of the measures you will take during abnormal operating conditions to make sure you continue to comply with permit conditions. Abnormal operating conditions include: <ul style="list-style-type: none"> • unexpected releases • start-up • momentary stoppages • shutdown 	In the event of any abnormal operation the shredder can be shut down immediately which would not result in any adverse impacts or unusual releases.	Yes
You must not make assumptions about the nature of the outputs	The majority of the wood waste received is from the councils HWRC and research	Yes

<p>from your waste treatment processes. You must make sure that you appropriately classify the outputs following WM3. If you do not, you may breach your Duty of Care for waste and commit an offence under the Environmental Protection Act 1990.</p>	<p>for RPS 249 has shown this to be non-hazardous in nature therefore this is a well understood waste stream without the need of undertaking a TWM3 assessment.</p>
<p>This is particularly important for fines arising from shredding and trommelling processes, which generally:</p> <ul style="list-style-type: none"> • require disposal at cost • contain a range of contaminants • are likely to be subject to a mirror entry code in the LoW, for example 19 12 11* versus 19 12 12 	<p>The only fines from the shredding and trommelling would be waste wood which can be accepted by the biomass incineration plant and are non-hazardous wood.</p>
<p>Any hazardous waste taken from your facility must be consigned following our guidance Dispose of hazardous waste.</p>	<p>Only hazardous waste generated at site would be used oils which would be removed by the maintenance contractor when they have completed their servicing or repairs.</p> <p style="text-align: right;">Yes</p>
<p>If an output is not waste, for example because end-of-waste criteria have been met, or the material has been produced in accordance with a Quality Protocol (resource framework), then you do not need to store the output within your permitted area. However, non-waste materials are still able to cause pollution, for which you remain liable. You must implement appropriate measures to prevent and minimise risks of pollution from non-waste and waste materials.</p>	<p>The shredded waste wood does not meet the end of waste test so this is not applicable.</p> <p style="text-align: right;">N/A</p>

4.8 BAT CONCLUSIONS FOR WASTE TREATMENT

Compliance with regards to the BAT conclusions for waste treatment is shown in table 4.9 below.

Table 4.9 BAT Conclusions from COMMISSION IMPLEMENTING DECISION (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council

EPR Requirements	Current Arrangements	BAT?
<p>BAT 1. In order to improve the overall environmental performance, BAT is to</p>	<p>The site needs to develop an Environmental Management System compliant to this BAT condition.</p>	<p style="text-align: center;">No</p>

implement and adhere to an environmental management system (EMS) that incorporates all of the following features:

I. commitment of the management, including senior management;

II. definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation;

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III. planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment;

IV. implementation of procedures paying particular attention to:

- (a) structure and responsibility,**
- (b) recruitment, training, awareness and competence,**
- (c) communication,**
- (d) employee involvement,**
- (e) documentation,**
- (f) effective process control,**
- (g) maintenance programmes,**
- (h) emergency preparedness and response,**

(i) safeguarding compliance with environmental legislation;

V. checking performance and taking corrective action, paying particular attention to:

- (a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations – ROM),**
- (b) corrective and preventive action,**
- (c) maintenance of records,**
- (d) independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained;**

- VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness;
- VII. following the development of cleaner technologies;
- VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life;
- IX. application of sectoral benchmarking on a regular basis;
- X. waste stream management (see BAT 2);
- XI. an inventory of waste water and waste gas streams (see BAT 3);
- XII. residues management plan (see description in Section 6.5);
- XIII. accident management plan (see description in Section 6.5);
- XIV. odour management plan (see BAT 12);
- XV. noise and vibration management plan (see BAT 17).

BAT 2. In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques given below.

a. Set up and implement waste characterisation and pre-acceptance procedures	The site has waste pre-acceptance criteria in place.	Yes
b. Set up and implement waste acceptance procedures	The site has a waste acceptance procedure in place.	Yes
c. Set up and implement a waste tracking system and inventory	The site has a waste tracking system in place.	Yes
d. Set up and implement an output quality management system	The waste wood is shredded to a pre-agreed specification for the biomass incineration plant based upon size and moisture content.	Yes
e. Ensure waste segregation	The waste wood is segregated and separated from the green waste and composting areas at site.	Yes
f. Ensure waste compatibility prior to mixing or blending of waste	The waste wood received is typically from household waste recycling centres and would generally be consistent with the outputs from these sites which would not be incompatible. The research undertaken for RPS 249 has shown this waste stream to be non-hazardous.	Yes
g. Sort incoming solid waste	There are manual inspections of the waste and obvious unwanted material	Yes

	for the waste incineration process is removed.	
BAT 3. In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the following features:		
(i) information about the characteristics of the waste to be treated and the waste treatment processes, including: (a) simplified process flow sheets that show the origin of the emissions; (b) descriptions of process-integrated techniques and waste water/waste gas treatment at source including their performances;	The proposed variation is for the shredding of waste wood and this is not considered necessary given the simplicity of the activity.	N/A
(ii) information about the characteristics of the waste water streams, such as: (a) average values and variability of flow, pH, temperature, and conductivity; (b) average concentration and load values of relevant substances and their variability (e.g. COD/TOC, nitrogen species, phosphorus, metals, priority substances/micropollutants); (c) data on biodegradability (e.g. BOD, BOD to COD ratio, Zahn-Wellens test, biological inhibition potential (e.g. inhibition of activated sludge)) (see BAT 52);	There are no wastewater streams from the management and shredding of waste wood. All water on site is collected in the onsite lagoons and is used to wet the compost as part of the existing PAS100 treatment activity which is not part of this variation application.	N/A
(iii) information about the characteristics of the waste gas streams, such as: (a) average values and variability of flow and temperature; (b) average concentration and load values of relevant substances and their variability (e.g. organic compounds, POPs such as PCBs); (c) flammability, lower and higher explosive limits, reactivity; (d) presence of other substances that may affect the waste gas treatment system or plant safety (e.g. oxygen, nitrogen, water vapour, dust).	The only emissions to air from this proposed variation application are: Insignificant amount of dust from shredding activities; Exhaust emissions from mobile plant, shredder, hybrid trommels and generator. These are described in the dust management plan.	Yes
BAT 4. In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below.		
Optimised storage location	The waste wood is stored as far away from receptors as possible. The closest receptors are ancient woodland 300 to 400m west of the site and Tilwick meadows a SSSI about 1 km to the north of the site.	Yes

<p>Adequate storage capacity</p>	<p>The nearest residential receptors are 2 properties at about 200m but upwind of site with the village of Ravensden approximately 1.2km away.</p> <p>The site has sufficient storage capacity for the management of the waste wood especially with the extra land to be included within the installation boundary.</p> <p>The residence time of the wood is known and is shredded on a first in first out basis.</p>	<p>Yes</p>
<p>Safe storage operation</p>	<p>The waste wood is stored safely and in accordance with the fire prevention plan.</p>	<p>Yes</p>
<p>Separate area for storage and handling of packaged hazardous waste</p>	<p>No packaged hazardous waste is received at the site.</p>	<p>N/A</p>
<p>BAT 5. In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.</p>		
<p>Handling and transfer procedures aim to ensure that wastes are safely handled and transferred to the respective storage or treatment. They include the following elements:</p> <ul style="list-style-type: none"> — handling and transfer of waste are carried out by competent staff; — handling and transfer of waste are duly documented, validated prior to execution and verified after execution; — measures are taken to prevent, detect and mitigate spills; — operation and design precautions are taken when mixing or blending wastes (e.g. vacuuming dusty/powdery wastes). <p>Handling and transfer procedures are risk-based considering the likelihood of accidents and incidents and their environmental impact.</p>	<p>All handling of waste wood is undertaken by trained and competent staff.</p> <p>All waste received is in accordance with the transfer documentation as detailed by the waste carriers and in accordance with agreements with the local councils.</p> <p>Any spills of waste wood would be easily cleaned up pre or post shred by the use of the mobile plant with their buckets.</p> <p>The shredded wood is in the 0-150 mm range and is not dusty.</p> <p>Waste wood from council HWRC sites can be safely blended with other waste wood from other HWRC sites as they are all considered non-hazardous and would not be reactive.</p>	<p>Yes</p>
<p>BAT 6. For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pretreatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	<p>There are no emissions to water as there is no discharge from the site.</p> <p>All water is collected and used on site.</p>	<p>Yes</p>

<p>BAT 7. BAT is to monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p> <p>BAT 8. BAT is to monitor channelled emissions to air with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality</p> <p>BAT 9. BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques given below.</p> <p>BAT 10. BAT is to periodically monitor odour emissions. The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>BAT 11. BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and wastewater, with a frequency of at least once per year.</p> <p>BAT 12. In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> — a protocol containing actions and timelines; — a protocol for conducting odour monitoring as set out in BAT 10; 	<p>There are no emissions to water as there is no discharge from the site.</p> <p>All water is collected and used on site.</p>	N/A
	<p>There are no channelled emissions to air associated with this application.</p>	N/A
	<p>The site does not regenerate or accept solvents with any waste stream.</p> <p>The only wastes to be received as part of this variation are waste wood.</p>	N/A
	<p>The waste wood has been received at site for 17 years without any odour complaint.</p> <p>Therefore, as the wood to be received has had no complaints with regards to odour an OMP is not required.</p>	N/A
	<p>All energy, water use and waste generated are recorded and reported annually to the Environment Agency.</p> <p>The site is a low user of energy and water.</p>	Yes
	<p>The waste wood has been received at site for 17 years without any odour complaint.</p> <p>Therefore, as the wood to be received has had no complaints with regards to odour an OMP is not required.</p>	N/A

<p>— a protocol for response to identified odour incidents, e.g. complaints;</p> <p>— an odour prevention and reduction programme designed to identify the source(s); to characterise the contributions of the sources; and to implement prevention and/or reduction measures</p> <p>The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>BAT 13. In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques given below.</p> <p>A) Minimising residence time B) Using chemical treatment C) Optimising aerobic treatment</p>	<p>The waste wood received at site is non-hazardous and is non-odorous.</p> <p>The waste wood has been received at site for 17 years without any odour complaint.</p> <p>Therefore, as the wood to be received has had no complaints with regards to odour an OMP is required.</p>	<p>N/A</p>
<p>BAT 14. In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below.</p> <p>Depending on the risk posed by the waste in terms of diffuse emissions to air, BAT 14d is especially relevant.</p>		
<p>A) Minimising the number of potential diffuse emission sources</p>	<p>The only source of diffuse emissions is dust from the proposed activities. The site minimises the potential sources of diffuse emissions by:</p> <ul style="list-style-type: none"> Setting speed limits on site; The use of an earthen embankment 5-6m in height which surrounds the existing site and smaller earthen bund around new area with trees and other measures such as concrete blocks around bays with headroom; The shredded material is dropped on to the pile approximately 0.5-1m from the height of the pile to minimise dust generation dependent on wind conditions. 	<p>Yes</p>
<p>b) Selection and use of high-integrity equipment</p>	<p>The only equipment in use as part of the application is the shredder and the mobile plant used to move the wood and shredded wood around. These are all appropriately designed for the purpose they are being used.</p>	<p>Yes</p>

c) Corrosion prevention	The shredder is made from corrosion resistant materials and is designed for use outside.	Yes
d) Containment, collection and treatment of diffuse emissions	<p>It is not considered that containment and collection of diffuse emissions would be proportionate to the level of environmental risk for the site as all of the following measures are in place to control this risk:</p> <p>It is considered that the site is not causing significant pollution or is likely to cause pollution after the variation for the following reasons:</p> <ol style="list-style-type: none"> 1) The site has been operating with shredding non-hazardous wood since 2005 and has been visited on multiple occasions by the local EA site officer who has not raised any issue with regards to pollution in the subsequent CAR reports. 2) The closest local site receptors are two houses 200m to the South of the site. These are upwind of the site for 90% of the time and given the site only operates 8am to 7pm this limits further the risk of any pollution occurring. 3) The other receptor downwind from site are over 1km away and is a local farm which would generate dust emissions of its own with its farming activities so would not be considered particularly sensitive. 4) TGN M17 states that dust over 10 µm falls out between a couple of hundred metres and 1km. Therefore, any dust would not reach any of the nearby receptors to cause nuisance. 5) A low speed-low dust generating shredder is used which would prevent significant emissions of dust occurring. 6) Water is added to the shredder hopper at the rate of 100kg/h which would damp down any dust making it less mobile and would stay within the confines of the site boundary. 7) The wood is predominantly sourced from household waste recycling centres and is stored in the open on site. This means it would be naturally wet and would not generate as much dust as drier wood stored indoors. 8) The wood is shredded near to the fuel bays which are constructed of prefabricated to a height of 4.5m with a 0.5m freeboard. Wood would 	Yes

	<p>be discharged to the bays below the height level of the bays which would thus contain it.</p> <p>9) Fuel bays have sides of the same height and are located either side on or with their rear to the prevailing wind direction which would ensure any shredded wood is not wind entrained.</p> <p>10) The fuel specification for the biomass incineration plant is 0-150mm with most of the shredded material much too large to become windborne.</p> <p>11) The site has a weather station and will not undertake shredding when windspeed gusts to over 20 mph reducing the chances of any dust becoming airborne.</p> <p>12) The site boundary where shredding takes place has a 5-6m earthen bund which would further prevent any dust egress as this is significantly higher than the height of the shredder, trommels and any other activity likely to generate dust.</p> <p>13) The site has 2 lagoons filled with collected rainwater which can be used to dampen yard areas or wood piles to ensure there is minimal dust generation in dry periods.</p> <p>14) Since 2005 the site has had 18 complaints and none of these were for dust despite the shredding activity being undertaken. The only complaints in the last 6 years (2 complaints) were with regards to the compost fire in 2019.</p>	
e) Dampening	<p>The waste wood is stored in the open and will collect moisture during rainfall events. The moisture content of the wood is higher (up to 55%) than wood stored indoors and will naturally be less inherent to produce diffuse emissions.</p> <p>Up to 100kg/hr of water is added to the shredder hopper to damp down any potential dust emissions.</p> <p>All roadways and work areas can be cleaned with a roadsweeper to prevent diffuse dust emissions.</p>	Yes
f) Maintenance	<p>All equipment is maintained in accordance with preventative maintenance schedule.</p>	Yes
g) Cleaning of waste treatment and storage area	<p>The waste storage and yard areas are regularly cleaned to ensure there are no build ups of dust.</p>	Yes
h) Leak detection and repair (LDAR) programme	<p>No organic compounds emitted as part of this variation application.</p>	N/A
BAT 15. BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g.	<p>Flaring is not undertaken at the installation.</p>	N/A

start-ups, shutdowns) by using both of the techniques given below.		
BAT 16. In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below.	Flaring is not undertaken at the installation.	N/A
BAT 17. In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:		
I. a protocol containing appropriate actions and timelines;	The site has been operating since 2005 and there have been no noise complaints for the duration of that time.	Yes
II. a protocol for conducting noise and vibration monitoring;		
III. a protocol for response to identified noise and vibration events, e.g. complaints;	Therefore, it is not considered necessary to have a noise and vibration management plan.	
IV. a noise and vibration reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.		
The applicability is restricted to cases where a noise or vibration nuisance at sensitive receptors is expected and/or has been substantiated.		
BAT 18. In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given below.		
Appropriate location of equipment and buildings	The equipment is located more than 1km away from the nearest residential receptor and is located within an earthen bund.	Yes
Operational measures	The equipment is maintained in accordance with manufacturer's recommendations. The site operates during the hours of 8-am – 5pm Weekdays. 8am – 4pm Saturdays and 9am – 4pm on Sundays and Bank Holidays. This will limit the potential exposure of nearby noise receptors to any noise nuisance outside of normal working hours.	Yes
Low-noise equipment	The site operates a low speed low noise shredder.	Yes
Noise and vibration control equipment	The site operates within an earthen embankment which is 5-6m high and would break line of site with any noise sensitive receptor and would act as noise attenuation.	Yes

Noise attenuation	The site operates within an earthen embankment which is 5-6m high and would break line of site with any noise sensitive receptor and would act as noise attenuation.	Yes
BAT 19. In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given below.		
a) water management	All water on site is collected in the lagoons and reused to provide the moisture for the composting process.	Yes
	Water is continually recirculated within the site.	
b) water recirculation	All water on site is collected in the lagoons and reused to provide the moisture for the composting process.	Yes
	Water is continually recirculated within the site.	
c) Impermeable surface	All operations take place on an impermeable concrete hardstanding.	Yes
d) Techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels	No vessels and tanks used in the shredding of the waste wood.	N/A
e) Roofing of waste storage and treatment areas	The risk from non-hazardous waste wood to soil and water contamination is low given that any treatment would be applied to the wood, be historical and not mobile.	N/A
	Furthermore, the wood is stored outside to allow some degree of rainfall/moisture to ensure the moisture content of the material which would ensure that it is dampened and not dusty without the need for additional water to be used.	
f) Segregation of water streams	All water from the site would be run off from rainfall on the non-hazardous waste wood, non-hazardous compost undergoing treatment or the PAS100 certified compost which is a product. Therefore, segregation of the water streams is unnecessary as the water can be used for moisture control of the compost during the PAS100 process.	N/A
g) Adequate drainage infrastructure	All water on site is collected in the lagoons and reused to provide the moisture for the composting process.	Yes
	Water is continually recirculated within the site.	
h) Design and maintenance provisions to allow detection and repair of leaks	The site is subject to a daily inspection which would identify any repairs required for the surfacing.	Yes
	The lagoons are subject to periodic checks. The lagoons are only storing	

<p>i) Appropriate buffer storage capacity</p> <p>BAT 20. In order to reduce emissions to water, BAT is to treat waste water using an appropriate combination of the techniques given below</p>	<p>collected rainwater which is used for dampening and water for the shredder hopper.</p> <p>The main lagoon is 75 metres by 15 metres with a depth of 3.5 metres. This has a capacity of 3,937.5 m³. The lagoon is lined with a geosynthetic liner and was built to a design approved by the Environment Agency at the time of design and construction.</p> <p>In addition, there is the old lagoon which is unlined and has a capacity of 25m by 25 metres with a depth of 5m for a capacity of 3,125m³.</p> <p>There is the capacity to pump between the two lagoons if required.</p> <p>Furthermore, there is a new lagoon associated with the proposed layout for the new land within the installation. This will be 75 metres by 15 metres with a depth of 3.5 metres with a capacity of 3,937.5 m³.</p> <p>There are no emissions to water from the site.</p> <p>No drainage channel or discharge point from site.</p>	<p>Yes</p> <p>N/A</p>
<p>BAT 21. In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan</p> <p>Protection measures</p>	<p>The site has perimeter fencing and security gate controlled by CCTV access. CCTV coverage is for the whole yard area and also the lorry park area from the gated entrance on the B660, which is locked securely out of hours.</p> <p>The CCTV is new and was installed in November 2021. Out of hours the CCTV system has monitoring and movement sensors which if broken will alert the owner by a message with the photo. The CCTV can be accessed off-site by the owner who can attend site within 10 minutes in the event of an incident.</p> <p>A new alarm system is also fitted (November 2021) This system protects all buildings along with a Smartwater Smoke Cloak system which is also fitted within the weighbridge office and workshop. A new out of view Keysafe is also fitted within the weighbridge office. This is protected by the alarm and also the smoke cloak system</p> <p>The alarm system is also remotely monitored by BlueLine Security Ltd,</p>	<p>Yes</p>

	they can attend site within 15 minutes of an initial alarm trigger.	
	All of the measures above are designed to prevent unauthorised access to the site which could result in vandalism or other malevolent acts.	
	All protection measures with regards to fire and thermal monitoring is detailed within the fire prevention plan.	
Management of incidental/accidental emissions	There is a fire prevention plan in place to manage any fires.	Yes
	The site also has an emergency plan in place for the management of spills and other accidents.	
Incident/accident registration and assessment system	There is a daily site log which will be used to record all accidents, incidents, changes to procedures and the findings of inspections.	
BAT 22. In order to use materials efficiently, BAT is to substitute materials with waste.	The application is for the shredding of waste wood to use as a biogenic material for use within a waste wood incineration plant for energy recovery.	Yes
BAT 23. In order to use energy efficiently, BAT is to use both of the techniques given below.		
Energy efficiency plan	The site is a very limited user of electricity with the main energy use being the fuel used to power the mobile plant and shredder.	Yes
	Electricity is used for the office and lighting whilst water is used for welfare activities.	
	It is considered that the site is a low user of resources.	
	All usages are monitored at least annually, considered as part of the management review and reported to the Environment Agency under the permit.	
Energy balance record	It is considered that the site is a low user of resources and this is not applicable.	N/A
BAT 24. In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan	No packaging received at the site.	N/A
BAT 25. In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs, BAT is to apply BAT 14d and to use one or a combination of the techniques given below.		
Cyclone	No channelled emission point at site.	N/A
Fabric filter	No channelled emission point at site.	N/A
Wet scrubbing	No channelled emission point at site.	N/A
Water injection into the shredder	The waste wood to be shredded is naturally higher in moisture content	Yes

<p>BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from the mechanical treatment of waste</p> <p>Dust 2-5 mg/Nm³</p>	<p>than wood stored internally due to being stored outside which reduces the likelihood of dust generation and carryover without the need for injecting water into the shredder.</p> <p>Water is added at the rate of 100kg/hr to the shredder to dampen down any potential dust emissions.</p> <p>No channelled emission point at site.</p>	<p>N/A</p>
<p>BAT conditions 26 to 53 are not considered relevant as part of this variation application.</p>		

5 EMISSIONS CONTROL

5.1 ENCLOSURE WITHIN BUILDINGS

Installation justifications with regards to enclosure within buildings is detailed in Table 5.1 below.

Table 5.1 Non-hazardous and inert waste appropriate measures for enclosure within buildings

EPR Requirements	Current Arrangements	BAT?
<p>Enclosing activities within buildings can be an appropriate measure for preventing and minimising emissions of pollution, given that an appropriately designed building will reduce a range of types of pollutants, in particular, noise, dust and odour. A partially enclosed building may be an appropriate measure on its own, or together with other appropriate measures, depending on the site-specific circumstances.</p>	<p>No noise, odour or dust complaints associated with the current shredding of waste wood. Dust is controlled at source currently without the need for a building as described in the dust management plan.</p> <p>The site has been visited throughout the years for the operation of the wood shredding activity which has not been raised on a CAR form as causing pollution, nuisance or complaint.</p>	<p>N/A</p>
<p>If your waste treatment activities are likely to cause (or are causing) significant pollution at sensitive receptors which cannot be addressed by alternative measures, then you must carry out that waste treatment activity within an enclosed building.</p>	<p>The site has been visited throughout the years for the operation of the wood shredding activity which has not been raised on a CAR form as causing pollution, nuisance or complaint.</p> <p>All of the mitigation measures detailed within the dust management are in place which prevent any pollution occurring.</p>	<p>Yes</p>
<p>You must also carry out non-treatment activities, such as storing and transferring waste (including loading and unloading) in enclosed buildings if these activities are likely to cause (or are causing) significant pollution at sensitive receptors which cannot be addressed by alternative measures.</p>	<p>All of the mitigation measures detailed within the dust management are in place which prevent any pollution occurring.</p>	<p>N/A</p>
<p>An enclosed building means a construction designed to provide sheltering cover and minimise emissions of noise, particulate matter, odour and litter. It must be enclosed on all sides. Its doorways must be as small as practicable and covered with fast-acting doors which default to the closed position. You must keep its windows closed unless you need to open them for ventilation. Dirty (process</p>		

<p>contaminated) air must pass through appropriate abatement before being emitted from the building.</p>	
<p>Material transfer and storage systems and equipment (for example conveyors, hoppers, containers and tanks) can extend outside the enclosed building so long as they are also fully enclosed.</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>
<p>You must regularly assess your enclosed building's integrity. You should consider using BS EN ISO 9972:2015 to demonstrate building containment. This method is based on fan pressurisation. You should carry out a smoke test at least annually and where potential faults in building integrity are likely to be causing pollution such as odour.</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>
<p>Enclosed buildings must be ventilated to provide a safe working environment for employees. Your building's ventilation system must be properly designed and effective in order for the building to provide adequate containment and prevent fugitive emissions and unacceptable noise. The engineer designing the ventilation system must be appropriately qualified. To validate the size of supply points (louvers), and the volume of dirty air that needs to be extracted, the engineer must understand and consider:</p> <ul style="list-style-type: none"> • the needs of the occupants working in the building • heat release • the volume of moist gas emissions that will be generated 	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>
<p>The air inside the enclosed building must be maintained under negative pressure, or you must install a localised extraction system that extracts dirty air from sources of pollution within the building. Sources that could potentially benefit from localised extraction include:</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>

<ul style="list-style-type: none"> • shredders and trommels • waste loading and unloading areas • odorous stockpiles 	
<p>You must regularly assess the integrity of your building for damage that could result in fugitive emissions, including noise breakthrough. You must prevent and minimise damage by implementing a maintenance programme.</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>
<p>You must implement measures to control door opening, to make sure that the engineered ventilation system works as effectively as possible. It must direct emissions to the abatement system, rather than letting them escape as fugitive emissions through doors or windows. If you use negative pressure, it must be maintained when doors are opened, and you must monitor the pressure to demonstrate its effectiveness. Additional measures to minimise fugitive emissions may be required in some cases, for example installing an airlock entry system.</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>
<p>To reduce emissions of noise and vibration, the building must have an appropriate minimum surface density. You must install acoustic seals on doors and windows, following advice from an acoustic specialist.</p>	<p>As detailed above it is considered that enclosure within a building is not proportionate given the mitigation measures in place and the extremely low environmental risk.</p> <p style="text-align: right;">N/A</p>

5.2 POINT SOURCE EMISSIONS TO AIR

Installation arrangements with regards to the control of point source emissions to air is detailed in Table 5.1 below.

Table 5.1 Non-hazardous and inert waste appropriate measures for point source emissions to air (channelled emissions)

EPR Requirements	Current Arrangements	BAT?
<p>You must use appropriate measures to make sure that you collect, extract and direct all process emissions to an appropriate abatement system for treatment before release.</p>	<p>The only emissions are from the shredding activity which is controlled through the measures detailed within the dust management plan.</p> <p>These are diffuse and not channelled via a stack.</p>	<p style="text-align: center;">Yes</p>
<p>You must identify the main chemical constituents of your</p>	<p>The only potential emissions are dust and vehicle exhaust emissions.</p>	

<p>facility's point source emissions as part of your inventory of emissions to air. You must include the speciation of volatile organic compounds (VOCs) if you have identified them in the inventory and it is practicable to do so. You must characterise your emissions sufficiently to make sure that your chosen abatement systems are effective.</p>	<p>There are no emissions of VOCs proposed as part of this permit variation.</p>	N/A
<p>You must make an assessment of the fate and impact of the substances emitted to air, following the Environment Agency's risk assessment guidance.</p>	<p>1) The site has been operating with shredding non-hazardous wood since 2005 and has been visited on multiple occasions by the local EA site officer who has not raised any issue with regards to pollution in the subsequent CAR reports.</p> <p>2) The closest local site receptors are two houses 200m to the South of the site. These are upwind of the site for 90% of the time and given the site only operates 8am to 7pm this limits further the risk of any pollution occurring.</p> <p>3) The other receptor downwind from site are over 1km away and is a local farm which would generate dust emissions of its own with its farming activities so would not be considered particularly sensitive.</p> <p>4) TGN M17 states that dust over 10 µm, as would be the case from the shredding activity, falls out between a couple of hundred metres and 1km. Therefore, any dust would not reach any of the nearby receptors to cause nuisance.</p>	N/A
<p>To reduce point source emissions to air (for example dust and odorous compounds) from the treatment of waste, you must use an appropriate combination of abatement techniques. Or you must demonstrate to us that your alternative abatement is equally effective. The appropriate combination of abatement techniques would include one of more of:</p>	<p>The site injects approximately 100kg/hr into the shredder hopper to damp down dust emissions. This can be adjusted dependent upon weather conditions and the condition of the wood.</p>	Yes
<ul style="list-style-type: none"> • adsorption • biofiltration, biotrickling or bioscrubbing • cyclone • fabric filter • water injection (into a shredder) 	<p>No stacks and vents.</p>	N/A
<p>You must assess and design vent and stack locations and heights</p>	<p>No stacks and vents.</p>	N/A

<p>to make sure dispersion capability is adequate and noise pollution is prevented. You may need to carry out dispersion modelling to establish whether the height of the vent or stack allows emissions to disperse appropriately, preventing any impacts on receptors.</p>		
<p>Where monitoring is required, including for odour, you must install suitable monitoring points which meet the sampling standard for the relevant pollutants.</p>	No monitoring is currently required.	N/A
<p>You must have procedures to make sure that you correctly operate, monitor and maintain abatement equipment.</p>	No abatement equipment required or in place.	N/A
<p>Your monitoring should demonstrate the effectiveness of the abatement, so that you can take preventative or corrective action as necessary.</p>	No abatement equipment required or in place.	N/A
<p>You should implement contingency measures for abatement system down-time and for any abnormal events, for example biofilter media change. These should include suspending operations until the site is back under control, or having standby abatement available.</p>	No abatement equipment required or in place.	N/A
<p>You should design and operate abatement systems to minimise water vapour plumes.</p>	No abatement equipment required or in place.	N/A

5.3 FUGITIVE EMISSIONS TO AIR

Site arrangements with regards to the control of fugitive emissions to air are detailed in Table 5.3 below.

Table 5.3 Non-hazardous and inert waste appropriate measures for fugitive emissions to air

EPR Requirements	Current Arrangements	BAT?
<p>You must use appropriate measures to prevent and minimise fugitive emissions to air, including dust, mud and litter, odour and noise and vibration.</p> <ul style="list-style-type: none"> you must use your waste pre-acceptance, waste acceptance and site inspection checks and procedures to identify and manage wastes that could cause, or are causing, fugitive 	<p>All fugitive measures are controlled as described in the various management plans such as dust management plan, fire prevention plan and the accident management plan.</p> <p>The following measures are in place to control fugitive emissions of dust from site:</p> <ol style="list-style-type: none"> The closest local site receptors are two houses 200m to the South of the site. These are upwind of the site for 90% of the time and given the site only 	<p>Yes</p>

<p>emissions to air. When you identify any such wastes you must:</p> <ul style="list-style-type: none"> • take appropriate risk-assessed measures to prevent and control emissions • prioritise their treatment or transfer • Where necessary to prevent fugitive emissions to air from the storage or handling of wastes, you should use a combination of the following measures: • use fully enclosed material transfer and storage systems and equipment outside buildings, for example conveyors, hoppers, containers, tanks and skips • store and handle the waste within a suitably enclosed area (for example bays), a building or enclosed building • keep doors closed except when access is required • keep enclosed buildings and equipment under adequate negative pressure with an appropriate abated air circulation or extraction system, locating air extraction points close to potential emission sources • use fast-acting or 'airlock' doors that default to closed <p>You must have an appropriate, regular maintenance programme covering all buildings, plant and equipment. It must help prevent</p>	<p>operates 8am to 7pm this limits further the risk of any pollution occurring.</p> <p>2) The other receptor downwind from site are over 1km away and is a local farm which would generate dust emissions of its own with its farming activities so would not be considered particularly sensitive.</p> <p>3) A low speed-low dust generating shredder is used which would prevent significant emissions of dust occurring.</p> <p>4) Water is added to the shredder hopper at the rate of 100kg/h which would damp down any dust making it less mobile and would stay within the confines of the site boundary.</p> <p>5) The wood is predominantly sourced from household waste recycling centres and is stored in the open on site. This means it would be naturally wet and would not generate as much dust as drier wood stored indoors.</p> <p>6) The wood is shredded near to the fuel bays which are constructed of prefabricated to a height of 4.5m with a 0.5m freeboard. Wood would be discharged to the bays below the height level of the bays which would thus contain it.</p> <p>7) Fuel bays have sides of the same height and are located either side on or with their rear to the prevailing wind direction which would ensure any shredded wood is not wind entrained.</p> <p>8) The fuel specification for the biomass incineration plant is 0-150mm with most of the shredded material much too large to become windborne.</p> <p>9) The site has a weather station and will not undertake shredding when windspeed gusts to over 20 mph reducing the chances of any dust becoming airborne.</p> <p>10) The site boundary where shredding takes place has a 5-6m earthen bund which would further prevent any dust egress as this is significantly higher than the height of the shredder, trommels and any other activity likely to generate dust.</p> <p>11) The site has 2 lagoons filled with collected rainwater which can be used to dampen yard areas or wood piles to ensure there is minimal dust generation in dry periods.</p>	
	<p>All mobile plant is subject to maintenance as required under the manufacturer's recommendations. The mobile plant is maintained under the</p>	<p>Yes</p>

<p>emissions or minimise them. Your maintenance programme must include:</p> <ul style="list-style-type: none"> • a leak detection and repair programme to promptly identify and mitigate any fugitive emissions of organic compounds from treatment plant and associated infrastructure (for example, pipework, conveyors or tanks) • regular inspection and cleaning of all waste storage and treatment areas and equipment (including conveyor belts) to avoid large scale contamination activities • preventing plant and equipment from corroding (for example, conveyors or pipes) – including selecting and using appropriate construction materials, and lining or coating equipment with corrosion inhibitors 	<p>warranty and when outside the warranty is maintained by a local engineering company.</p>
<p>You should monitor and log weather conditions – temperature, wind speed and direction, and describe any precipitation (for example none, drizzle, heavy rain, snow). You can use this information to identify when dispersion conditions are poor (that is, periods of warm, calm weather with wind blowing towards sensitive receptors). You can also use it to inform decisions to implement additional short-term pollution control contingency measures. If you have a weather station you should position it carefully, for example not placing it in between buildings. There is guidance in the World Meteorological Organization’s Guide to Meteorological Instruments and Methods of Observation.</p>	<p>The site is subject to a daily site inspection with this being recorded. Furthermore, the site has a weather station which is calibrated annually and monitors temperature, wind speed, pressure, rainfall, wind gust and wind direction.</p> <p style="text-align: right;">Yes</p>
<p>Relying on dispersion and wind direction to minimise pollution at sensitive receptors must be a last resort and you must not use it</p>	<p>Whilst dispersion and wind direction for the site would prevent any pollution at nearby receptors there are a number of onsite measures in place to ensure that</p> <p style="text-align: right;">Yes</p>

<p>instead of measures that prevent and reduce pollution at source.</p>	<p>this is not relied upon. These are described above.</p>	
<p>Other measures for dust, mud and litter</p> <p>If your activities are likely to produce dust and particulates, mud or litter that could cause pollution at sensitive receptors, or if such pollution has been substantiated, you must implement and regularly review a dust, mud and litter management plan. You must do this following our guidance. Your dust, mud and litter management plan must explain how you will prevent and minimise emissions of dust, mud and litter from your facility.</p>	<p>Whilst it is considered that the site would not cause pollution at a sensitive receptor a dust management plan has been included as part of this application as requested by pre-application advice.</p>	<p>Yes</p>
<p>Measures such as litter fencing and micro-netting should be located as close as possible to areas where you load and unload light-weight loose waste, if this activity is done outdoors. You should not rely on fences and screens at the perimeter of your facility to stop litter escaping.</p>	<p>All shredded wood in bays which are shielded from the prevailing winds.</p> <p>No municipal waste brought on to site which would cause litter.</p>	<p>Yes</p>
<p>Measures such as mist sprays should be located as close as possible to point source emissions of dust, for example at conveyors, trommels, shredders, and at building entrances – except where this would increase odour from biodegradable waste.</p>	<p>Water is added to the hopper of the shredder to prevent dust generation.</p> <p>The site has hoeses which can be used for the damping down of yard and access roads to minimise dust generation as required.</p>	<p>yes</p>
<p>If measures such as using hoses and road sweepers do not prevent mud escaping onto the public highway, you must take further measures and you must consider installing a high pressure wheel wash. Regardless of the measures you use, you must make sure that you minimise water consumption, and that contaminated water does not escape from your facility, unless you can lawfully discharge it.</p>		
<p>Other measures for odour</p> <p>9. If your activities are likely to produce odour pollution at sensitive receptors, or such pollution has been substantiated, you must implement and regularly review an odour management plan following our guidance, which includes H4</p>	<p>Odour is not an issue with the waste wood and there have been no complaints with regards to this activity therefore an odour management plan is not required.</p>	<p>N/A</p>

<p>Odour management. Your odour management plan must explain how you will prevent and minimise odorous emissions from your facility.</p>	
<p>You must reject waste that is highly odorous as part of your pre-acceptance and waste acceptance procedures. This is unless you can handle and treat these wastes within an enclosed building with appropriate odour control measures, including extraction via odour abatement. Otherwise, you should talk to the waste supplier to stop it happening again. You should avoid receiving aged waste, for example by refusing to accept waste from other transfer stations that do not have strict inventory controls and documented holding times.</p>	<p>No highly odorous waste being received as part of this variation application. N/A</p>
<p>You must make sure that odorous waste arrives at and leaves your facility in covered or enclosed vehicles. Mesh covers are not adequate to control odour. You should minimise how long potentially odorous waste is kept at your facility, in particular under anaerobic conditions. Making smaller stockpiles increases natural aeration, reducing the risk of anaerobic biodegradation which can cause odour.</p>	<p>No odorous waste being received as part of this variation application. N/A</p>
<p>You should wash empty vehicles before they leave your facility, to remove any residues which may be or become odorous. You must make sure the run-off from this process is contained and lawfully discharged.</p>	<p>The vehicles leaving site that have delivered the waste wood are predominantly council owned. The wood is generally from HWRC and it is the responsibility of the councils contractor to manage this. N/A</p>
<p>You should not allow contaminated liquids to pool for long periods of time, as they can be a source of odour. If you do not have a drainage system inside the building that can collect the leachate or dirty water, then you will need other appropriate measures. You should take action to avoid ponding or pooling. Industrial vacuum cleaners can be used to suck up liquids. You should clean any spillages immediately.</p>	<p>There are no contaminated liquids generated as part of this variation. N/A</p> <p>All rainfall falling on yard areas is directed to a sump and pumped to the lagoons.</p>
<p>You must cover odorous or potentially odorous waters or</p>	<p>No odorous waters generated as part of this variation application. N/A</p>

<p>liquids or keep them in enclosed tanks or containers.</p> <p>Using masking agents (for example dry nano systems, ozone systems and ionisation systems) is a way of attempting to disguise an odour problem. If you understand and process wastes efficiently then you will not need to use masking agents. We do not consider this technology an appropriate measure.</p> <p>If your activities are likely to produce noise or vibration pollution at sensitive receptors, or such pollution has been substantiated, you must implement and regularly review a noise and vibration management plan. Follow our guidance H3 part 2 noise assessment and control. Your noise and vibration management plan must explain how you will prevent and minimise emissions of noise and vibration from your facility.</p> <p>For noise, your noise and vibration management plan must be informed by a noise impact assessment carried out following the methodology of BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'.</p> <p>For vibration, your noise and vibration management plan must be informed by a vibration impact assessment carried out following the methodology of BS 6472-1:2008 'Guide to evaluation of human exposure to vibration in buildings. Vibration sources other than blasting'.</p>		
	This is not required as no odour issues with regards to the handling, treatment and storage of the waste wood.	N/A
	There have been no noise complaints during the operation of the site for the last 17 years including the wood shredding activity. Therefore, a noise and vibration management plan is not required.	N/A
	There have been no noise complaints during the operation of the site for the last 17 years including the wood shredding activity. Therefore, a noise and vibration management plan is not required.	N/A
There have been no noise complaints during the operation of the site for the last 17 years including the wood shredding activity. Therefore, a noise and vibration management plan is not required.	N/A	

5.4 POINT SOURCE EMISSIONS TO WATER (INCLUDING SEWER)

Site arrangements with regards to the management of point source emissions to water and sewer are detailed in Table 5.4 below.

Table 5.4 Non-hazardous and inert waste appropriate measures for point source emissions to water (including sewer)

EPR Requirements	Current Arrangements	BAT?
You must identify the main chemical constituents of the site's point source emissions to water	There are no point source emissions to water from the installation.	N/A

<p>and sewer as part of the site's inventory of emissions.</p>	<p>The site collects all rainwater in the lagoons and use it on site for the composting activity (not subject to this variation) or damping down associated with the waste wood activity.</p>	
<p>You must assess the fate and impact of the substances emitted to water and sewer, following the Environment Agency's risk assessment guidance.</p>	<p>There are no point source emissions to water from the installation.</p>	<p>N/A</p>
<p>Discharges to water or sewer must comply with the conditions of an environmental permit and a trade effluent consent.</p>	<p>There are no point source emissions to water from the installation.</p>	<p>N/A</p>
<p>Relevant sources of waste water include:</p> <ul style="list-style-type: none"> • runoff from all waste storage and handling areas, including loading and unloading areas • process water • condensate collected from treatment process • waste compactor runoff • vehicle washing • washing of containers and vessels • soil washing effluent • vehicle oil and fuel leaks • spills and leaks • rainwater from bunds around containers and tanks 	<p>There are no point source emissions to water from the installation.</p>	<p>N/A</p>
<p>If you need to treat waste water before discharge or disposal, you must use appropriate treatment techniques. An appropriate combination of treatment techniques, for example, could include silt or solids removal and using an oil separator to manage site drainage.</p>		
<p>You must segregate uncontaminated water streams (for example clean runoff from roofs) from those that require treatment.</p>	<p>The site collects all rainwater in the lagoons and use it on site for the composting activity (not subject to this variation) or damping down associated with the waste wood activity.</p>	<p>Yes</p>
<p>You must separate contaminated water streams based on pollutant content and treatment required. For example, you may need to collect and treat separately contaminated surface runoff water and process water.</p>	<p>No process water generated at site.</p>	<p>N/A</p>

5.5 FUGITIVE EMISSIONS TO LAND AND WATER

Site arrangements with regards to the management of fugitive emissions to land and water are detailed in Table 5.5 below.

Table 5.5 Non-hazardous and inert waste appropriate measures for fugitive emissions to land and water

EPR Requirements	Current Arrangements	BAT?
<p>You must use appropriate measures to control potential fugitive emissions and make sure that they do not cause pollution. See the guidance on emissions to water and leaks from containers.</p>	<p>The site uses a variety of appropriate measures to prevent fugitive emissions to land and water as detailed below.</p>	<p>Yes</p>
<p>You must design appropriate surfacing and containment or drainage facilities for all operational areas, taking into account:</p> <ul style="list-style-type: none"> • collection capacities • surface thicknesses • strength and reinforcement • falls • materials of construction • permeability • resistance to chemical attack • inspection and maintenance procedures • relevant standards of construction • end use, for example by tracked or wheeled vehicles or vehicle weight 	<p>The existing and new site surfacing will be constructed to the Pav 2 heavy duty slab standard which is designed to take into account the vehicles using the area.</p> <p>This is constructed with reinforced steel within 6 inches of concrete with a strength rating of 35 newtons.</p> <p>This hardstanding will be impermeable and will have kerbing to prevent any off-site release.</p> <p>The site has a slight fall to a sump which has a filter system on it. This then pumps any collected rainwater across to the lagoons.</p>	<p>Yes</p>
<p>Your drainage infrastructure must:</p> <ul style="list-style-type: none"> • prevent incompatible wastes coming into contact with each other • make sure that fire cannot spread 	<p>The only drainage infrastructure at site is the sump collecting the rainwater that then pumps this to the lagoons for use in the network of hoses.</p>	<p>Yes</p>
<p>You must store and treat all waste on an impermeable surface with contained drainage that meets CIRIA 736 or an equivalent approved standard. The impermeable surfaces must have sealed construction joints. These requirements do not apply in designated areas where the waste being stored or handled does not pose any significant risk of contaminating surface water or ground water. You must appropriately isolate these</p>	<p>The waste is stored on an impermeable surface constructed to the PAV 2 standard with all rainwater contained and pumped to lagoons. A spillage of any other liquid would be contained and cleaned up using the appropriate spill kit.</p>	<p>Yes</p>

designated areas from other operational areas so that there cannot be any flows between them. This includes in the event of an accident, for example a fire.

You must provide bunds for all tanks containing liquids (whether waste or otherwise) that could be harmful to the environment if spilled. Bunds must meet CIRIA 736 or an equivalent approved standard and:

- be impermeable, stable and resistant to the stored materials
- have no outlet (that is, no drains or taps) and drain to a blind collection point
- have pipework routed within bunded areas with no penetration of contained surfaces
- be designed to catch leaks from tanks or fittings
- have an appropriate capacity
- have regular visual inspections – any contents must be pumped out or otherwise removed under manual control after checking for contamination
- be fitted with a high level probe and an alarm (as appropriate) if not frequently inspected
- have tanker connection points within the bund (where possible), and if not possible you must provide adequate containment for spillages or leakage
- have programmed engineering inspections (extending to water testing if structural integrity is in doubt)
- be emptied of rainwater regularly to maintain the containment capacity

All above-ground tanks containing liquids (whether waste or otherwise) that could be

There is a 2 static diesel tanks which are the green tank 5,000 litres and yellow tank 4,550 litres. Both of these are bunded. There is also a blue tank which is 4,000 litres and is portable but also bunded.

Tanks are monitored electronically and remotely accessed by program on our computer system. We do not have the tanks full due to risk of theft. We are able to get diesel within 24-36 hours from our local supplier to enable this policy.

These are all stored on a yard area which is impermeable.

Yes

There is a 2 static diesel tanks which are the green tank 5,000 litres and yellow tank 4,550 litres. Both of these are

Yes

<p>harmful to the environment if spilled must be kept on an impermeable surface with contained drainage that meets CIRIA 736 or an equivalent approved standard. You must fit the tanks with alarms and cut-out systems to detect and prevent leaks and spills.</p>	<p>bunded. There is also a blue tank which is 4,000 litres and is portable but also bunded. These are stored on a yard area which is impermeable.</p>	
<p>You must minimise using subsurface equipment and infrastructure, and decommission it where possible. For subsurface structures, you must:</p> <ul style="list-style-type: none"> • establish and record the routing of all site drains and subsurface pipework • identify all subsurface sumps and storage vessels • engineer systems to minimise leakages from pipes and make sure they can be detected quickly if they do occur • provide secondary containment or leakage detection for subsurface pipework, sumps and storage vessels – vessels must be fitted with alarms and cut-out systems to detect and prevent spills when filling • establish an inspection and maintenance programme for all subsurface structures, for example, pressure tests, leak tests, material thickness checks or CCTV 	<p>No subsurface equipment and infrastructure proposed as part of this variation application.</p>	<p>N/A</p>
<p>You must provide secondary containment that meets CIRIA 736, or an equivalent approved standard, for all drums and other mobile containers which:</p> <ul style="list-style-type: none"> • are greater than 200 litres in capacity and are kept outside • contain liquids (waste or otherwise) that could be harmful to the environment if spilled 	<p>This only applies to the ad blue and some oil drums. These will be stored in an appropriately bunded container which meets these requirements.</p>	<p>Yes</p>
<p>You must comply with the oil storage regulations. These apply</p>	<p>The oil storage regulations will be complied with.</p>	<p>Yes</p>

<p>to non-hazardous wastes such as vegetable and cooking oil, as well as to biofuels and mineral oils.</p>	
<p>You must provide appropriate buffer storage capacity at your facility to store waste waters, taking into account:</p>	<p>Any abnormal operating scenario would just lead to the shutdown of the shredder and would not lead to any wastewater generation.</p> <p style="text-align: right;">Yes</p>
<ul style="list-style-type: none"> • potential abnormal operating scenarios and incidents • the nature of any polluting substances and their impact on the downstream waste water treatment plant and receiving environment • You must have appropriate measures to monitor, treat and reuse the water held in the buffer storage before discharging. 	<p>The maximum storage at site is the 5,000 litre diesel tank which if spilled would be contained within the yard area and able to be cleaned up.</p>
<p>You must take appropriate measures to prevent emissions from washing and cleaning activities, including:</p>	<p>The only washing undertaken is of mobile plant and this is done via water from the lagoons using hoses and no detergents.</p> <p style="text-align: right;">N/A</p>
<ul style="list-style-type: none"> • containing and directing spray, liquid effluent and wash-waters to foul sewer or collecting them in a sealed system for offsite disposal – you must not discharge them to surface or storm drains • where possible, using biodegradable and noncorrosive washing and cleaning products • storing all detergents, emulsifiers and other cleaning agents in suitable bunded or containment facilities, within a locked storage area, or in a building away from any surface water drains • preparing cleaning or disinfection solutions in contained areas of the site and never in areas that drain to the surface water system or groundwater 	

<p>You must produce and implement a spillage response plan and train staff to follow it and test it.</p> <p>Your procedures and associated training must make sure you deal with spillages immediately. You should follow the manufacturer's health and safety advice for any products or substances involved.</p> <p>You must keep spill kits at locations close to areas where a spillage could occur and make sure relevant staff know how to use them. You must make sure kits are replenished after use.</p> <p>You must stop spillages from entering drains, channels, gullies, watercourses and unmade ground. You must make available proprietary sorbent materials, sand, booms or drain mats for use when required.</p> <p>You must make sure your spillage response plan includes information about how to recover, handle and correctly dispose of waste produced from a spillage.</p> <p>You must have a documented inspection and maintenance programme for impermeable surfaces and containment facilities and keep records to demonstrate its implementation.</p>	<p>The accident management plan has measures to control spillages.</p>	Yes
	<p>Staff will be trained in this plan.</p>	
	<p>Any spillages will be dealt with immediately and any consumables used such as spill kits will be sent to an appropriate facility for disposal.</p>	Yes
	<p>The spill kit is contained in the workshop which is adjacent to the yard area.</p> <p>Staff monitor the content of the spill kit and are trained in how to use it.</p>	Yes
	<p>All activities take place on an impermeable surface with kerbing which would prevent any spillage escaping.</p>	Yes
	<p>All waste is handled correctly and sent to the approved waste contractor for hazardous wastes as it is likely that any spillage would be oil based.</p>	Yes
<p>The yard area is subject to inspection during the daily checks. The PAV 2 construction which includes reinforced steel in the slab is very durable and any defects would be reported to management and repaired. This would be noted in the site log.</p>	Yes	

5.6

PESTS

Site arrangements with regards to the control of pests are detailed in Table 5.6 below.

Table 5.6 Non-hazardous and inert waste appropriate measures for pests

EPR Requirements	Current Arrangements	BAT?
<p>You must manage waste in a way that prevents pests. For example, if you do not manage flies, rats and birds they can affect operations, be a nuisance to neighbours and pose an environmental and health hazard as a potential vector for pathogens. We have produced internal guidance for our officers on fly management. Contact us if you would like a copy.</p>	<p>A pest control contractor is employed by the site to control and manage pests.</p>	Yes

<p>If you expect pests will cause pollution, hazard or annoyance at sensitive receptors, or if this has been substantiated, you must create, use and regularly review a pest management plan, following our guidance.</p>	<p>Pests are not expected to cause pollution, hazard or annoyance at sensitive receptors therefore a pest management plan is not required.</p>	<p>N/A</p>
<p>Your pest management plan must include procedures for:</p> <ul style="list-style-type: none"> • inspecting for and controlling pests • rejecting loads of infested waste • treating pest infestations promptly, and removing waste if necessary • storing, handling and using approved pest control products – you can get information on using chemicals at work from the Health and Safety Executive 	<p>Pests are not expected to cause pollution, hazard or annoyance at sensitive receptors therefore a pest management plan is not required.</p>	<p>N/A</p>

5.7 MONITORING EMISSIONS TO AIR

Site arrangements with regards to monitoring emissions to air are detailed in Table 5.7 below.

Table 5.7 Non-hazardous and inert waste appropriate measures for emissions to air

EPR Requirements	Current Arrangements	BAT?
<p>Your facility's emissions inventory must include information about the relevant characteristics of point source emissions to air, such as the:</p> <ul style="list-style-type: none"> • average values and variability of flow and temperature • average and peak concentration and load values of relevant substances and their variability • presence of other substances that may affect the waste gas treatment system or plant safety, for example, oxygen, nitrogen, water vapour and dust 	<p>The only emission from the proposed activity which is the subject of this variation application is dust and this is managed so as to not cause pollution at the nearby sensitive receptors.</p> <p>This has been successful as the shredding operation has been going on for a number of years and there have been no complaints with regards to dust nuisance.</p>	<p>Yes</p>
<p>You must monitor fugitive emissions of dust and particulates if they are likely to cause pollution at sensitive</p>	<p>The only emission from the proposed activity which is the subject of this variation application is dust and this is</p>	<p>N/A</p>

<p>receptors, or if this has been substantiated. There is guidance on developing monitoring strategies for assessing levels of pollutants in the ambient atmosphere and monitoring particulate matter in ambient air around waste facilities.</p>	<p>managed so as to not cause pollution at the nearby sensitive receptors.</p> <p>This has been successful as the shredding operation has been going on for a number of years and there have been no complaints with regards to dust nuisance.</p>	
<p>You must describe your monitoring programme in your dust management plan. Visual monitoring is not effective for assessing the risk of emissions of fine particulates, for example PM10. You should use dust and particulate monitors with trigger alarms instead.</p>	<p>See dust management plan which is an appendix to this application.</p>	<p>Yes</p>
<p>You should set alarm trigger levels to alert site staff when short-term particulate concentrations are elevated, so that you can review site practices or increase your mitigation measures. When combined with weather data, dust and particulate monitors can also provide evidence to demonstrate that your facility is not the cause of complaints. You should use a particulate limit of 75 µg/m³ to 100 µg/m³ (over a 5 minute average) for PM10 as an initial trigger for action, and reduce this after the system has been in place for some time.</p>		

5.8 MEDIUM COMBUSTION PLANT DIRECTIVE

Site arrangements with regards to medium combustion plant are detailed in Table 5.8 below.

Table 5.8 Non-hazardous and inert waste appropriate measures for medium combustion plant

EPR Requirements	Current Arrangements	BAT?
<p>If you operate medium combustion plant or specified generators you must monitor your emissions following the Environment Agency guidance on Monitoring stack emissions: low risk MCPs and specified generators and maintain a record of the type and quantity of fuel used in the plant.</p>	<p>The site does not operate any boiler plant or generators.</p>	<p>N/A</p>
<p>If you have a generator that uses natural gas, for example in a</p>	<p>No fixed generators used at site.</p>	<p>N/A</p>

<p>boiler, you must comply with the specified generator regulations.</p> <p>You must keep periods of start-up and shut-down for medium combustion plant and specified generators to a minimum. You must notify the Environment Agency of newly installed combustion units before start-up.</p> <p>You must notify the Environment Agency at least 14 days in advance of any planned changes to the medium combustion plant or generator which could affect compliance with any emission limits that apply, this includes notifying us of any significant upgrades.</p>	No medium combustion plant at site.	N/A
	No medium combustion plant at site.	N/A

5.9 EMISSIONS MONITORING TO WATER OR SEWER

Site arrangements with regards to monitoring emissions to water or sewer are detailed in Table 5.9 below.

Table 5.9 Non-hazardous and inert waste appropriate measures for emissions to water or sewer

EPR Requirements	Current Arrangements	BAT?
<p>Your facility's emissions inventory must include information about the relevant characteristics of point source emissions to water or sewer, such as:</p> <ul style="list-style-type: none"> • average values and variability of flow, pH, temperature, and conductivity • average concentration and load values of relevant substances and their variability – for example, COD (chemical oxygen demand) and TOC (total organic carbon), nitrogen species, phosphorus, metals, priority substances or micropollutants • data on bio-eliminability – for example, BOD (biochemical oxygen demand), BOD to COD ratio, Zahn-Wellens test, biological inhibition potential, for example, inhibition of activated sludge 	<p>There are no point source emissions to water or sewer from the installation.</p> <p>All domestic effluent is collected in a septic tank which is periodically emptied and disposed of by an approved contractor.</p>	Yes

<p>For relevant emissions to water or sewer identified by the emissions inventory, you must monitor key process parameters (for example, waste water flow, pH, temperature, conductivity, or BOD) at key locations. For example, these could either be at the:</p> <ul style="list-style-type: none"> • inlet or outlet (or both) of the pre-treatment • inlet to the final treatment • point where the emission leaves the facility boundary 	<p>There are no point source emissions to water or sewer from the installation.</p> <p>All domestic effluent is collected in a septic tank which is periodically emptied and disposed of by an approved contractor.</p>	Yes
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5.10 CONTROL AND MONITOR EMISSIONS FOR YOUR ENVIRONMENTAL PERMIT

Site arrangements with regards to controlling and monitoring emissions for the environmental permit are detailed in Table 5.10 below.

Table 5.10 Control and monitor emissions for your environmental permit

EPR Requirements	Current Arrangements	BAT?
<p>You must follow the conditions in your permit which tell you to prevent or minimise pollution. Pollution is any emission as a result of your operations which may:</p> <p>be harmful to human health or the quality of the environment, for example ecosystems on land or water</p> <p>cause offence to a human sense, for example hearing (apart from standalone surface or groundwater discharges)</p> <p>cause damage to property damage or interfere with amenities or other uses of the environment</p>	<p>All permit conditions will be adhered to.</p>	Yes
<p>Your permit may set limits on emissions to air, water or land from point sources (emissions from one or more set points), for example:</p> <p>discharges to infiltration systems (drainage fields)</p> <p>exhaust gas from a boiler stack</p> <p>waste water or treated sewage discharge from an effluent treatment plant outlet pipe</p> <p>emission of bioaerosols from open processes or sources or point source release from stacks</p>	<p>All emission limits set within the permit will be adhered to.</p>	Yes

There may be more than one type of emission from a specific point, for example an effluent treatment plant outlet pipe might release treated effluent and surface water drainage.

There are some types of emission that may cause pollution but do not have set limits in permit conditions. In permits these are called 'emissions not controlled by emissions limits' or 'fugitive emissions'.

For waste, mining waste and installations these include:

dust
fumes
flies
vermin
mud
litter

For water discharge activities and groundwater activities there may be things in the discharge that do not have set limits in your permit.

You must control these emissions and make sure they do not cause pollution.

If your risk assessment shows you have a risk of these types of emissions you may need to provide an emissions management plan when you apply for your permit to demonstrate how you'll control them.

If you cause pollution from these types of emissions but do not already have an emissions management plan, the Environment Agency may ask you to submit a plan to them.

Dust mud and litter

Your dust management plan must include:

the plan version number and date
an introduction to the site and description of site operations – including site plan(s) to support the description
You must also provide details of:

The site has in place a dust management plan for the control of dust emissions.

Yes

The other types of emission are controlled as detailed by BAT requirements in Sections 4 and 5 and also the accident management plan.

A dust management plan has been provided as requested in pre-application advice.

Yes

Dust is controlled as per the dust management plan and is not reiterated here.

Yes

The dust management plan meets the requirements as detailed within this appropriate measures requirement.

<p>local sensitive receptors other local contributors of dust and emissions emissions sources on site site abatement systems, including the nomination of responsibility how you contact the local community and respond to complaints You must also provide details of the location and specifications of site PM10 monitoring, including:</p> <p>the location of the monitor how you manage the data how the equipment is serviced and calibrated the trigger action levels (if applicable)</p> <p>Make sure that your site surfaces, including roofs, hard standing, working areas, any containment structures required by your permit, such as bunds or other secondary containment measures, and your site drainage infrastructure will prevent pollution to surface water and groundwater.</p> <p>Consider collection capacities, surface thicknesses, strength and reinforcement, falls, materials of construction and permeability.</p> <p>You must make sure any rainfall collection systems are kept separate from areas of the site which are or may be contaminated.</p> <p>Make sure your surfaces and containment or drainage facilities are resistant to spilled chemicals. Your management system must include a plan about how you will inspect and maintain your surfaces and containment facilities.</p> <p>The following are needed to prevent contaminated runoff polluting groundwater or surface waters:</p> <p>a waterproof surface spill containment kerbs sealed construction joints</p>	<p>All activities take place upon PAV2 heavy duty hardstanding which is fully impermeable surface.</p> <p>All rainfall is collected in the lagoons and reused for dust control in the shredder, dampening down yard areas or for wetting the compost as part of that treatment activity.</p> <p>The surfaces are resistant to spilled chemicals (anti-freeze and ad blue only) and oils.</p> <p>All drainage on site drains to a sump which is then used to pump water to the lagoons. The site has precast concrete walling on the NE and N edges. The water on the West and South all drains to the precast and sealed collection sumps. The bottom sealed collection sump has a concrete wall around it but once bay 2 in the yard is constructed it will have a precast retaining wall.</p> <p>Any spills will be treated in situ and managed in accordance with the spill procedure within the accident management plan.</p> <p>There are no sub-surface drains.</p>
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Yes

If you do not already have these things in place you must have a plan to show how and when you'll put them in place if they're needed. You may need to use extra measures to control risks in the meantime.

Your permit may say you must have a connection to a sealed drainage system.

A sealed drainage system prevents water escaping from your operational area, and means any liquid used in your process will be stored in the system and collected for disposal elsewhere.

You must:

collect any liquid that passes through your drainage system in a sealed sump (collection pool), unless you have a permit to discharge the liquid
dispose of collected liquid through a treatment facility or have it collected by a specialist waste disposal company

If your operation causes pollution, you must:

clean up the pollution as soon as possible
stop the activity until you have changed your operation to prevent pollution in future
tell the Environment Agency (your permit will tell you how to do this)

You must prevent leaks or accidental release of liquids that could cause pollution from tanks, sumps, containers and bunds.

Bunds are walls built around tanks to capture anything that leaks from them.

You must design your site so that leaks from underground structures are prevented and any leaks can be detected quickly.

You must keep a record of the route of any underground drains or pipework on your site.

The diesel tanks are double skinned whilst the other materials such as anti-freeze and ad blue are on bunded pallecons. **Yes**

No underground structures. **Yes**

<p>If you use oil in your operations you must fit and maintain oil separators to surface water drainage systems to prevent discharges being contaminated by oil.</p> <p>You do not need to follow this guidance on bunding if your storage tanks, treatment tanks and underground pipework hold, treat or transport sewage at sewage treatment works or sewerage networks.</p> <p>You must provide containment (bunding) for underground pipework, sumps and storage vessels. You may also need to fit a leak detection system, for example if you're carrying out your activity in a groundwater source protection zone.</p> <p>You must keep a list of any underground sumps or storage vessels.</p> <p>Your sumps and bunds must be:</p> <p>waterproof resistant to any materials you're going to store in them You must make sure sumps and bunds do not become contaminated or blocked as this may cause them to leak.</p> <p>You must:</p> <p>check that sumps and bunds are working correctly, for example that there are no cracks hydraulically test any sump or bund if you're worried it is not working correctly fit a high-level probe to any sumps or bunds that you cannot check with an alarm to alert you before waste begins to escape containment Your bunds must also have a capacity larger than both of the following:</p> <p>110% of the largest tank the bund is protecting 25% of the combined volume of all the tanks the bund is protecting Use the maximum volume that a tank can physically hold when calculating capacity. Do not use</p>	<p>No underground pipework or storage tanks.</p> <p>The diesel tanks are double skinned whilst the other materials such as anti-freeze and ad blue are on bunded pallets.</p> <p>Tanker connection points and fill hoses are stored within the container.</p>	<p>Yes</p>
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the volume a tank is designed to hold.

Your bunds must also:

have no outlets (for example drains or taps)

drain to a blind (completely enclosed) collection point

have self-contained pipework that is separate from the container pipework

Your bunds must have tanker connection points within the bund. If that's not possible, the tanker connections points must be contained to capture any leaks.

If you need to use your bund to contain a leak you must make sure it's emptied to restore maximum capacity.

You must bund or kerb any area where environmentally harmful substances are stored (for example acids, chemical solvents, milk, lubricating oils and styrene).

You must store substances separately if it may be risky to store them too near each other, for example because they're flammable or if 2 substances spilled and mixed could cause an explosion or harmful fumes.

Do not use plastic intermediate bulk containers (medium-sized containers that can be moved easily and are made out of plastic or metal) to store flammable materials.

You must also:

locate storage areas away from watercourses, sensitive groundwater areas such as Source Protection Zone 1, unprotected drainage systems and sensitive boundaries, for example near areas where people live or nature reserves
clearly mark your storage areas, and any containers and packages in them
define the maximum storage capacities for each of your storage areas and containers and stick to them

Very limited IBCs and drums on site stored on banded pallets within a building.

Yes

There are no watercourses or drainage in proximity to the storage area.

The storage areas are inspected daily as part of the daily site inspection.

store containers, including empty containers, with lids, caps and valves secured and in place
 inspect your containers, drums and small packages at least once a week to check they're not damaged or leaking and put a procedure in place to replace or repair damaged or leaking containers

Volatile organic compounds (VOCs) are substances with low boiling points that evaporate from solids or liquids used in industrial processes, for example formaldehyde evaporating from paint, or benzene from fuel.

You must take the following steps to prevent emissions of VOCs:

- enclose any containers on your site
- fit equipment to capture VOCs on any vents on your site (such as scrubbers or filters)
- install sealed transfer (vapour balance) systems
- use sub-surface filling via (anti-syphon) filling pipes extended to the bottom of the container
- use floating roof tanks and bladder roof tanks
- use tank vent systems that minimise breathing losses, for example pressure or vacuum valves, and fit knock-out pots where necessary

If VOCs are released on your site, you must counter the release with techniques like adsorption (using a substance like a solid or liquid to absorb another substance, like a liquid or gas) or condensation (cooling or compressing a liquid to its saturation point) to capture the VOCs.

You must also prevent vapour and fluid emissions by:

- managing inventories
- preventing leaks from any pipework or fluid transport systems
- using white paint, insulation and active temperature controls to reduce the temperature in any storage tanks

All oil storage is enclosed with the containers kept closed at all times. **Yes**

<p>You must prevent or, where that is not possible, minimise odour if you have a waste, mining waste or installation permit. To do this you must use all appropriate measures, normally including:</p> <p>restricting raw materials that are likely to cause odour, like putrescible or already putrid biodegradable waste minimising quantities and storage times for odorous or potentially odorous materials managing materials and processes in ways which minimise the production of odorous chemicals working within the effective operational capacity of your site providing effective containment and abatement for odorous materials and activities You must respond effectively and proportionately to any process monitoring which indicates a problem, or reports from the community of odour pollution.</p>	<p>The wood is not received odorous and there have been no complaints associated with the wood shredding activity throughout the sites operation.</p>	<p>Yes</p>
<p>Odour management plan</p>	<p>The waste wood shredding is not listed as one of the activities requiring an odour management plan.</p>	<p>N/A</p>
<p>Bioaerosol control You should consider the methods described for dust management.</p> <p>You must also ensure that the process or abatement systems (or both) are managed within optimal limits to ensure emissions are reduced.</p>	<p>Dust management plan details all measures in place to control dust.</p>	<p>Yes</p>
<p>When applying for a permit the Environment Agency may ask you to submit a noise and vibration management plan if:</p> <p>we think there may be a risk of noise and vibration pollution beyond the site boundary you have done a noise impact assessment as part of your risk assessment You must consider the findings from any noise impact assessment you do as part of your risk assessment.</p> <p>We may also ask you to submit a noise and vibration</p>	<p>Given the rural nature of the site, the 5-6m high earthen bund surrounding the site acting as an acoustic barrier and the lack of noise complaints associated with the shredding activity it is considered that a noise and vibration management plan is not required.</p>	<p>N/A</p>

<p>management plan after we have issued your permit if you cause noise or vibration pollution beyond the site boundary, and either of these apply. You:</p> <p>have not already done a noise impact assessment do not already have a noise and vibration management plan</p>	
<p>If you have a waste, mining waste or installation permit and your activity causes pests (such as scavenging animals like birds or flies) you must control them by:</p> <p>carrying out regular inspections securing and removing waste that attracts scavengers or flies employing professional pest controllers using deterrent methods, such as scaring netting You must write a pest management plan explaining how you'll prevent or minimise pests if your risk assessment shows that your operation is likely to cause pests.</p> <p>If you're applying for a bespoke permit which involves the treatment or storage of biodegradable waste, the Environment Agency may ask you to submit a pest management plan with your application.</p>	<p>The waste wood shredding activity is not likely to attract pests given that the wood is moved to the biomass incineration plant long before the wood starts to biodegrade.</p> <p>The site has in place a pest control contractor who treats and manages pest activity at the site.</p>
<p>Any plans or procedures about how you prevent or minimise emissions, including odour, bioaerosols, noise, vibration and pests, are part of your management system. You must review these if your circumstances change, for example if:</p> <p>you receive complaints you exceed the emission limits in your permit you introduce activities that could create more emissions the environment you're operating in changes, for example if a school or residential development is built nearby</p>	<p>Plans and procedures would be revisited in the event of any complaints or developments in the vicinity of the site.</p>
<p>Your permit may say what monitoring you need to do to</p>	<p>All monitoring will be undertaken in accordance with the environmental</p>

make sure you are not exceeding any limits in your permit, or to check emissions from your site to make sure you're not causing pollution, or to take action if you are.

You may need to monitor:

pollutants within a water discharge activity or groundwater activity, such as ammoniacal nitrogen in sewage discharge

groundwater around a discharge area to check it's not being polluted by your site pollutants in an air emission, such as sulphur dioxide from a chimney

bioaerosols from open sources or stacks to ensure the agreed mitigation measures are effective

You should use equipment, staff, laboratories and systems that are certified or accredited (as appropriate) under the Monitoring Certification Scheme (MCERTS) for monitoring emissions to air, land and water, unless otherwise agreed in writing by the Environment Agency.

permit for this variation application when issued.

6 ENVIRONMENTAL IMPACTS

6.1 INTRODUCTION AND OVERVIEW OF SECTION

This section provides an assessment of the potential environmental effects of the foreseeable emissions from the activities to be included within the environmental permit which are the shredding of non-hazardous waste wood.

6.2 EMISSIONS TO AIR

There will be no point source emissions to air associated with this variation. The shredding activity could potentially cause some dust emissions but these would be more fugitive in nature. The site has purchased an Inventhor 9 low speed low dust shredder which would reduce any potential dust impacts. Furthermore, as detailed within the dust management plan the following measures are in place for the management and control of dust emissions associated with the wood shredding activity.

1. A low speed-low dust generating shredder is used which would prevent significant emissions of dust occurring.
2. Water is added to the shredder hopper at the rate of 100kg/h which would damp down any dust making it less mobile and would stay within the confines of the site boundary.
3. The wood is predominantly sourced from household waste recycling centres and is stored in the open on site. This means it would be naturally wet and would not generate as much dust as drier wood stored indoors.
4. The wood is shredded near to the fuel bays which are constructed of prefabricated to a height of 4.5m with a 0.5m freeboard. Wood would be discharged to the bays below the height level of the bays which would thus contain it.
5. Fuel bays have sides of the same height and are located either side on or with their rear to the prevailing wind direction which would ensure any shredded wood is not wind entrained.
6. The fuel specification for the biomass incineration plant is 0-150mm with most of the shredded material much too large to become windborne.
7. The site has a weather station and will not undertake shredding when windspeed gusts to over 20 mph reducing the chances of any dust becoming airborne.
8. The site boundary where shredding takes place has a 5-6m earthen bund which would further prevent any dust egress as this is significantly higher than the height of the shredder, trommels and any other activity likely to generate dust.
9. The site has 2 lagoons filled with collected rainwater which can be used to dampen yard areas or wood piles to ensure there is minimal dust generation in dry periods.

It is considered that the mitigation measures are effective in protecting nearby sensitive receptors from any dust emissions for the following reasons:

1. The closest local site receptors are two houses 200m to the South of the site. These are upwind of the site for 90% of the time and given the site only operates 8am to 7pm this limits further the risk of any pollution occurring.
2. The other receptor downwind from site are over 1km away and is a local farm which would generate dust emissions of its own with its farming activities so would not be considered particularly sensitive.

3. TGN M17 states that dust over 10 µm falls out between a couple of hundred metres and 1km. Therefore, any dust would not reach any of the nearby receptors to cause nuisance.
4. This is borne out by the fact that the site has been operating with shredding non-hazardous wood since 2005 and has been visited on multiple occasions by the local EA site officer who has not raised any issue with regards to pollution in the subsequent CAR reports.
5. Furthermore, since 2005 the site has had 18 complaints (the majority in the first two years) and none of these were for dust despite the shredding activity being undertaken. The only complaints in the last 6 years (2 complaints) were with regards to the compost fire in 2019.

It is therefore considered that the proposed shredding activity will not have a significant impact upon the local sensitive receptors.

6.3 EMISSIONS TO WATER

There are no emissions to water or sewer from the site and therefore there will be no impacts to water from the site.

6.4 NOISE

The site has been operating since 2005 and there have been no noise complaints even though the shredding activity has been undertaken during that time. The shredding activity is not considered to pose a risk to sensitive receptors as most of the receptors are upwind of site. The site is also surrounded by an earthen bund 5-6m high which would break line of site with these receptors and act as an acoustic barrier.

It is therefore considered that the proposed shredding activity will not have a significant noise impact upon the local sensitive receptors.

6.5 HABITATS REGULATIONS ASSESSMENT

UK government guidance <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site> states that a habitats regulations assessment applies to European sites in England and Wales and their inshore waters (within 12 nautical miles of the coast).

A [European site](#) is protected by the Conservation of Habitats and Species Regulations 2017 as amended (known as the Habitats Regulations). Under these requirements the EA must carry out an assessment under the Habitats Regulations to test if a plan or project proposal could significantly harm the designated features of a European site.

The following European sites are protected by the Habitats Regulations and any proposals that could affect them require an HRA:

- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)

Any proposals affecting the following sites would also require an HRA because these are protected by government policy:

- proposed SACs
- potential SPAs
- Ramsar sites - wetlands of international importance (both listed and proposed)

After reviewing the Defra portal Magic it was found that there are neither SPA, SAC or Ramsars or proposed sites within 5km of the Growing Beds site.

It is considered that as TGN M17 states that dust over 10 μm falls out between a couple of hundred metres and 1km that there would be no potential for the site to have an impact upon a European designated site nor Tilwick Meadows SSSI which is just over 1km from site and therefore a habitats regulation assessment is not required and this has not been considered further.