

ENVIRONMENTAL MANAGEMENT SYSTEM



Dust & Emissions Management Plan (DEMP)
Reference: SBSL-DEMP-V1

Version 1 Dated 03/02/2025

SHARP BROTHERS (SKIPS) LTD.
BEACON HILL INDUSTRIAL ESTATE
BOTANY WAY
PURFLEET
RM16 1SR

DOCUMENT CONTROL SHEET

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Issue Number: 1	Issue Date: 03/02/2025

1. Introduction

1.1 Purpose

The purpose of these procedures is to guide staff and contractors in the safe conduct of their duties in a manner which controls the environmental impacts of the company's operations, with specific reference to dust and related emissions management.

This report has been prepared to support an application for a new bespoke Environmental Permit to allow the operator to receive and process household, commercial/industrial waste, and construction and demolition waste to a maximum of 300,000 tonnes per annum.

The purpose of this Dust Management Plan (DMP) is to demonstrate that potential dust emissions will be managed effectively on site with no impact to the neighbouring environment. This plan describes the steps that will be taken to prevent or where that is not practicable, to minimise those emissions.

The permitted activities will be carried out inside an enclosed building to control and mitigate potential dust emissions from site activities that could harm the neighbouring SSSI.

This DMP is a standalone document and included within the wider site Environmental Management System in conjunction with associated operational control documents for the Site. This document provides guidance and information on the additional procedures for the control of other amenity issues, routine monitoring requirements and record management.

As a standalone document, it will be reviewed at least annually as a matter of routine and at additional times to reflect proactive improvements in management techniques. In addition, it will be reviewed following any incidents or issues identified on site.

1.2 The Operator

The operator is a strong, local family run business and has been involved with waste management for over 40 years and operates a similar facility in nearby Rainham which operates under an externally audited ISO14001 system with associated procedures.

The operator's management team are committed to managing pollution risk from the permitted activities and will ensure that the facility is operated in full compliance with the conditions stipulated within the Environmental Permit through investment in providing and maintaining its ISO14001 accreditation.

This commitment includes making all necessary plant and infrastructure investments required to meet the environmental permit conditions, protect the environment and human health. The proposed design for the Waste Transfer Station is largely driven by this desire and need to limit potential adverse effects of operations.

The application site has been used as external storage with associated haulage activities until recently purchased by the operator.

1.3 Scope

These Operational Procedures cover:

- Operations involving non-hazardous waste
- Physical treatment of non-hazardous waste

The procedures relate to the permitted activities at Beacon Hill Industrial Estate, Botany Way, Purfleet RM16 1SR.

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There is an enclosed MRF building for receiving, separating and sorting mixed skip waste into materials for reuse/recovery/recycling equipped with a fine mist water-based dust suppression system designed to control dust emissions and reduce temperature inside the building.

1.4 Management System

The operator holds externally certified and audited ISO14001 accreditations for its Management System covers all aspects of operations and aims to effectively manage the impacts of the business on the environment.

All EMS documents will be kept in the site office.

1.5 Site Location

The procedures relate to the permitted activities at Beacon Hill Industrial Estate, Botany Way, Purfleet RM16 1SR.

The site is in an established industrial estate, surrounded by other heavy industrial uses including waste management and tarmac and concrete batching activities.

The nearest residential properties are approximately 160m north of the site, adjacent to the mainline railway and A13 trunk road. Residential houses and other potentially sensitive human receptors are still separated from the site by a large industrial building and other industrial occupants.

These are shown in more detail elsewhere in the plan.

The nearest ecological designations are:

- Site of Special Scientific Interest; immediately to the east of the site

The site is located within the Thurrock council area. A search of AQMA within the council website confirms that there are a few locally specified AQMA areas for NO₂ (nitrogen dioxide) and PM10, however, the operator's site is excluded.

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2 Operations

2.1 Waste Deliveries to Site

For skip waste, all customers will be notified about the waste acceptance procedures and will be provided a list of wastes that are not permitted at the site. The prohibitive list includes asbestos, fluorescent tubes, paint and aerosols, clinical and medical waste, oils, and hazardous waste. Customers will also be informed that dusty waste is not permitted.

Any plasterboard must be bagged and placed on the top of the skip or a separated form of containment sought.

The operator will request details about the nature of the waste to be collected.

The site will predominantly accept mixed construction waste (EWC170904). Skip waste is a mixture of waste generated through construction and refurbishment projects. It can contain cardboard, light plastic, rigid plastic, wood, metal, textiles (carpets, curtains), furniture, bricks, concrete, soils and garden waste.

On rare occasions, a skip could contain single waste streams, for example wood, or garden waste, or furniture.

The skip waste will be processed through a MRF housed within an enclosed building equipped with a water-based fine mist dust suppression system to control dust and reduce temperature inside the building.

In addition, the operator may collect waste generated from demolition and excavation work, which could include soils, hardcore, concrete. These wastes will be collected separately. Prior to collection, the operator will request information on the nature and source of the waste to ensure that only non-hazardous waste is collected.

At the point of collection, an initial visual inspection of the waste will be undertaken by the driver to check for conformance. This will ensure that only acceptable waste will be loaded on to the vehicle. Any of the prohibited items identified above will be removed at the customer's property.

This waste will be managed as described above.

Table 1 provides the list of wastes that could generate dust.

2.2 On Site Waste Acceptance

The driver will arrive at the site and provide Waste Transfer Notes to the site office. For mixed skip waste, the driver will then be directed to the enclosed MRF building. The vehicle will be unsheeted once inside the building. The waste will be visually checked as it is unloaded to ensure that the waste is acceptable.

The driver will check the vehicle wheels before exiting the building and will use the hose and brush if required.

Any incidents of non-conformance will be recorded in the Non-Permitted Waste Form EMS-FR-01 and corrective action taken.

2.3 Overview of Waste Processing and Dust Controls

The site layout is shown on Drawing No SBSL/PartB2 5a (note that this will be updated to a CAD drawing prior to occupancy of the site). The waste codes are those set out in the Environment Agency's SR2015 No6 recently redesignated as SR2022 No4, however, the operator considers the principal EWC codes that will be used and have the potential to generate dust as shown in Table 1.

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For mixed waste, the waste processing activities will be as currently operated by the operator at its Rainham facility. The waste processing equipment was a bespoke designed and installed by Kiverco. It comprises a shredder, trommel, screener and picking station. This system is operated inside the enclosed building with existing dust suppression. There have been no dust complaints or issues associated with this system.

Table 1 –Wastes Accepted at the Site that could generate Dust

EWC Code	Description	Area in Site	Treatment Activities
17 05 04	Soils and Stones	Reception Area inside building	Processed within enclosed building.
17 09 04	Mixed construction and demolition wastes other than those mentioned in 170901, 170902 and 170903	Reception Area inside building	Processed within enclosed building.
20 02 02	Soil and stones	Reception Area inside building	Processed within enclosed building.
20 03 01	Mixed municipal, commercial and industrial wastes	Reception Area inside building	Processed within enclosed building.

The entire operational area is both enclosed (building) and all external site surfaces are concreted with sealed drainage.

The incoming mixed waste will be deposited within the enclosed building. This is a refurbishment of the existing buildings.

Waste Treatment

The existing waste treatment operation is carried out inside an enclosed building equipped with a plant to separate, sort and process materials for reuse/recovery/recycling to minimise waste sent for disposal at landfill.

The process undertaken inside the enclosed building will both size and density separate the materials.

Waste Storage

Waste and the subsequently processed materials will be stored at the site in metal containers located below the mechanical plant set in a series of bays of concrete construction until full when they are removed from the bays, sheeted and despatched from site.

The control measures include the use of dust suppression to dampen stockpiles, roadways and site operational areas to minimise the potential for release the of particulate matter through the action of the wind, mechanical sweeping of the site access road and concrete surface of the site, controls on waste acceptance, sheeting of incoming loads, application of site speed limits, control of stockpile storage heights and wheel cleaning facilities for vehicles leaving the site.

A dust spray system designed to dampen waste stockpiles hence minimise the release of particulate matter through the action of the wind will be installed at the site for the storage bays receiving waste. The waste is processed in a wet system, which will keep separate materials damp.

The waste processed in the building will be moist and stored in a container, sheeted prior to despatch hence the potential for fugitive emissions of dust and particulates during processing is low.

Dust suppression will be applied at the feed hopper as necessary during the loading of waste into the waste sorting and separation process inside the enclosed building.

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Raw Materials

Water is used for the dust suppression and will be supplied initially from a surface water holding tank. It will be necessary to replace water lost by the process and this will be replaced by grey water from rainwater collected off the roof of the building. Furthermore, in periods of dry weather the holding tank will be replenished by mains water supplied by the operator's hydrant. water will be transferred from the process water storage tank.

Electricity will be used to operate the waste sorting plant, sourced as green from the supplier whenever practicable.

Process description

The mechanical plant will size and density separate waste materials into materials for reuse/recovery/recycling. The bulk of the waste will be designated SRF and RDF for use in energy production.

It will also be equipped with magnets to recover steel products from the waste stream and an eddy-current separator to remove non-ferrous products from the waste stream.

Manual sorting will also take place to remove items missed by the mechanical plant.

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3. Dust and Particulate Management

3.1 Responsibility for Implementation of the DEMP

The Operations Director, Site Manager and Technically Competent Manager (TCM) have a shared-ownership for the responsibility for ensuring these procedures are adhered to which includes communication with staff and contractors, and the provision of adequate training.

The Technically Competent Manager is responsible for updating and re-issuing these procedures as necessary and ensuring all staff are trained in new procedures. The TCM will be the main point of contact for ensuring implementation of this plan. In their absence, the Site Supervisor will be responsible for implementation.

All staff will be trained in these procedures. All staff will be trained to a standard which enables them to perform the responsibilities. The TCM is responsible for delivering training and maintaining records. Training is reviewed on an annual basis.

A record of staff training will be kept for each staff member which includes inductions to new processes and procedures as needed.

If there are any changes to the operation which affect the dust management at the site, the TCM will carry out revised training and update the Management Plan accordingly.

The DEMP will be reviewed on an annual basis or sooner if requested by the EA. It will also be updated if the operator changes the operation.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

The following are potential sources of dust emissions:

Activity	Potential for dust emission	Controls and mitigation
Vehicles entering and/or leaving the site with mud or debris on their wheels	Low	Access to site is by tarmac roadway. Site surface is concrete throughout with sealed drainage.
Waste unloading	Very low	All unloading carried out inside an enclosed building. Water-based dust suppression installed.
Loading process plant	Very low	All unloading carried out inside an enclosed building. Water-based dust suppression installed.
Processing	Very low	All unloading carried out inside an enclosed building. Water-based dust suppression installed.
Material storage	Very low	All unloading carried out inside an enclosed building. Water-based dust suppression installed.
Vehicles leaving the site with mud or debris on their wheels	Low	Exit from site is by tarmac roadway. Site surface is concrete throughout with sealed drainage.
Particulate emissions from the exhaust of vehicles and plant on site	Low	Operational activities carried out inside an enclosed building. Auto-shut down of plant after 10 minutes inactivity. HGVs operate with no idling policy under ISO14001/FORS Gold.

It is also important to identify other potential sources of dust emissions in the locality. These are provided in Table 4.

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Table 4 Sources of Dust and/or other Emissions

Source	Address	Type of Business	Distance from site boundary (m)
Killoughery	Botany Way, Purfleet	Waste Management	10m
Concrete batching plant	Botany Way, Purfleet	Aggregates Management	75m
Tarmac batching plant	Botany Way, Purfleet	Waste Management	Adjoining
Open storage	Botany Way, Purfleet	Containers, builders materials	Surrounding
HGV traffic on industrial estate	Botany Way, Purfleet	Transport	Surrounding

Environment Agency Technical Guidance Note TGN M172 (TGN M17) discusses the pathways for the transport of dust in the context of waste facilities and explains the differentiation between the terms dust and particulate matter as follows:

“The terms dust and PM are used fairly interchangeably, although in some contexts one term tends to be used in preference to the other, as summarised below.

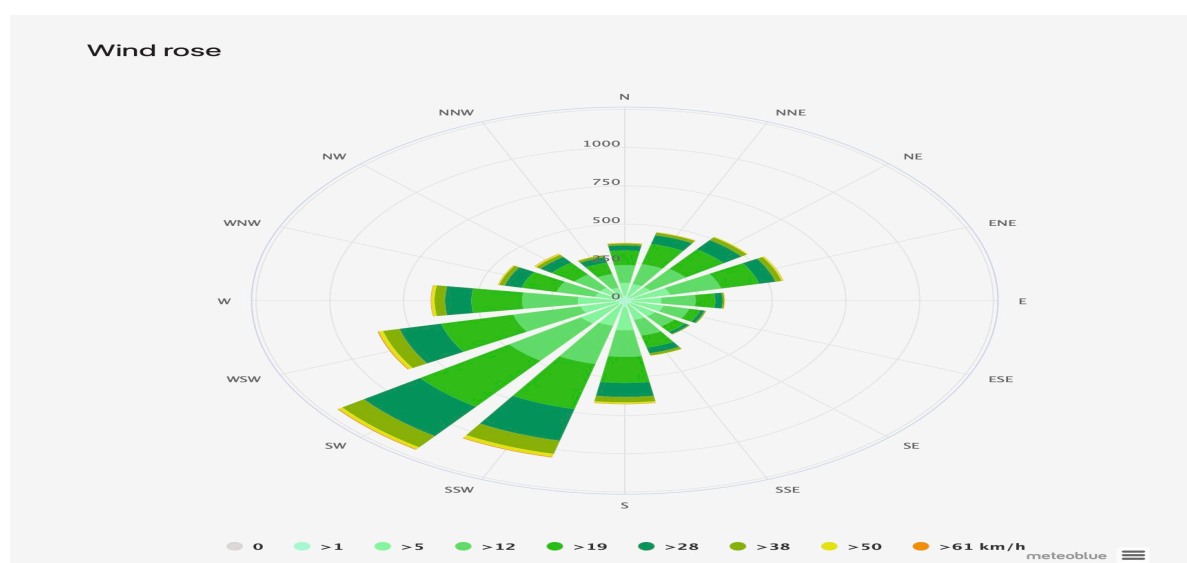
The dust will be generated by an emission source on the site and released to the air, for example by the tipping of waste from a lorry onto a stockpile. Once the dust is in the air it is termed suspended PM and will spread out from the source and be carried on the wind away from the site.”

For the purposes of this DEMP it should be noted that all waste management activities are carried out inside an enclosed building.

With reference to the wind rose for the site, the prevailing wind direction is from the west south west or south west and therefore areas to the east north east or north east of the site are down prevailing wind of the site.

Windrose data has been obtained from the Meteoblue for Purfleet.

Figure 1 - Wind Rose Data¹



¹ https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/rainham_united-kingdom_2639691

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Particle size is the key parameter when considering the transport of particulate matter in air. Coarse particles have much faster settling rates than finer particles and will therefore settle out as deposited dust generally close to the source. The finer particles may remain airborne for longer and travel further from the source.

Based on information published by DETR3 large particles (>30µm) mostly deposit within 100m of the source, intermediate-sized particles (10µm to 30µm) are likely to travel up to 200m to 500m and smaller particles (<10µm) can travel up to 1km from the source, although very small particles can travel much further. TGN M17 states that:

'PM10 emissions from industrial combustion processes and road transport are considered to contain more fine material (i.e. PM2.5) than, for example, mechanically-generated particulates from quarries and construction sites'

'Waste management operations that involve mechanical generation of PM rather than combustion, are also likely to release predominantly coarse particles.'

For the purposes of identifying the nearest receptors, a search area of 1km has been used.

Figure 2 shows the site and broad location of the main receptors within 1km. Table 5 provides a description of those receptors and the distance and direction from the site. The distance has been measured from the permit boundary, at the closest point.

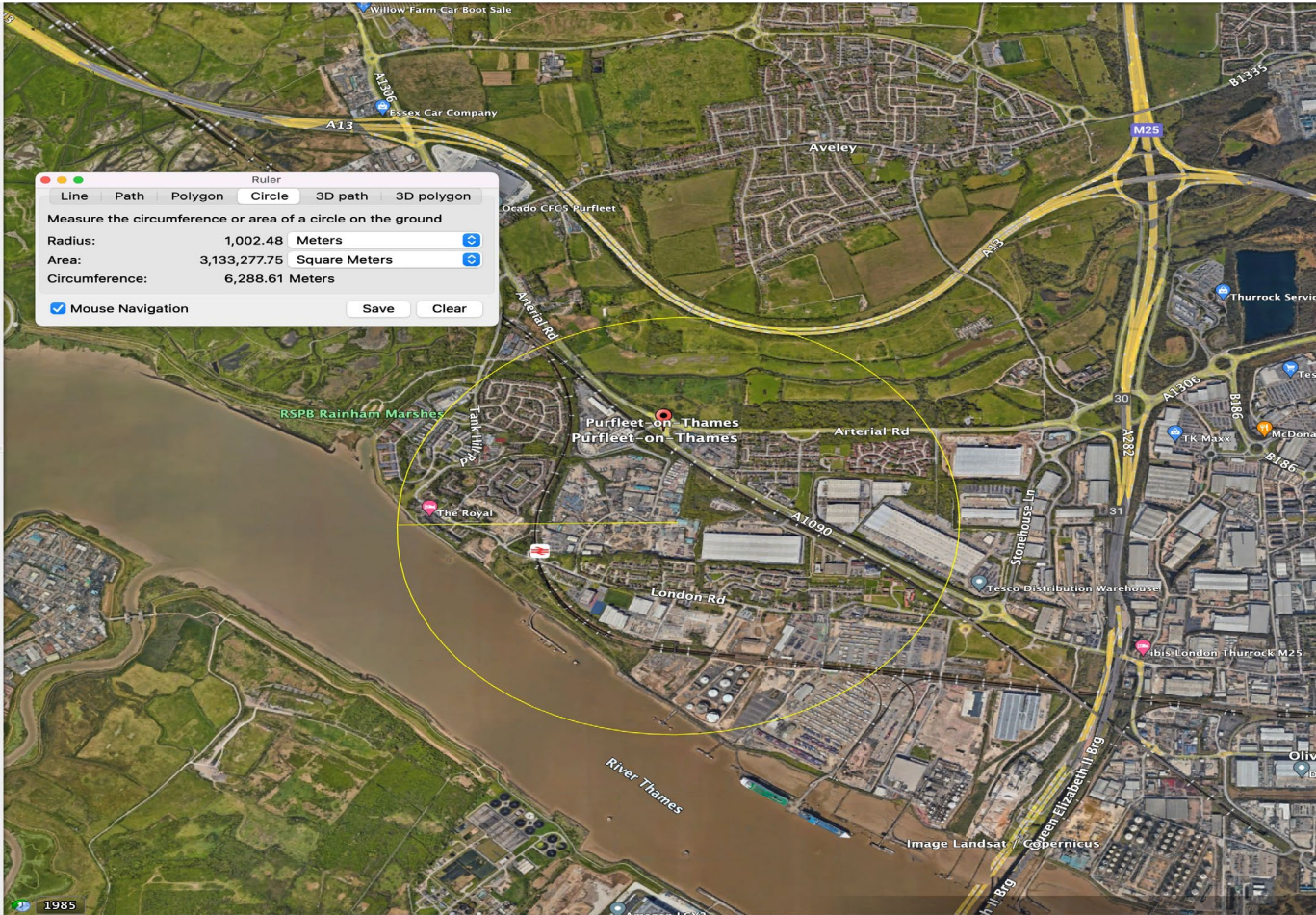
In terms of the sensitivity to dust the following has been adopted:

Type of Receptor	Sensitivity
Residential, schools, hospitals, nursing homes, Statutory Designations (SSSI, SPA, SAC)	High
Industrial premises, recreational grounds, Non Statutory Designations (Local Wildlife Sites)	Medium
Roads, Industrial premises (waste)	Low

There may be other unique receptors that do not fall within any of the above categories. These have been considered separately depending on the nature of the business and use. People on footpaths are transient receptors.

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Figure 2 - Site Setting and Receptors (The permitted site is shown with a green boundary). Blue shows 1km radius from centre point of site.



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Table 5 Sensitive Receptors

Direction	Description
North	Immediate Vicinity: Industrial units including transport and container storage spaces Within 500m: Commercial and industrial units and open storage Beyond 500m: A13 trunk road, railway (HS1) and beyond is residential housing
North East	Immediate Vicinity: SSSI chalk cliffs (2) to 50m+ height classified as unfavourable declining and destroyed SSSI Within 500m: Commercial and industrial units and open storage Beyond 500m: Beacon Hill Industrial Estate
East	Immediate Vicinity: Chalk cliffs to 50m+ height classified as SSSI Within 500m: Industrial and commercial units Beyond 500m: A13 trunk road and railway (HS1)
South East	Immediate Vicinity: SSSI chalk cliffs (1) to 50m+ height classified as unfavourable declining Within 500m: Commercial units and residential housing Beyond 500m: Industrial area, tank farm, banks of river Thames
South	Immediate Vicinity: Commercial and industrial units and open transport and related storage Within 250m: Residential housing Beyond 500m: Commercial and industrial premises and banks of river Thames
South West	200 metres: Other waste management activities carried out in external environment Within 500m: Residential housing Beyond 500m: Commercial and industrial premises and banks of river Thames
West	Immediate Vicinity: Other waste management activities carried out in external environment Within 500m: Commercial and industrial premises including waste management uses, some buildings, mainly open storage Beyond 500m: Railway line
North West	Other waste management activities carried out in external environment Within 500m: Commercial and industrial premises including waste management uses, some buildings, mainly open storage Beyond 500m: Bayer Street Allotments, Canal, Residential and Commercial properties

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2.2.1 Mobile Plant

Nitrogen Dioxide gas is a by-product of internal combustion engines and the site uses several items of plant with internal combustion engines. The process equipment will be powered by 3-phase electric.

Wherever possible the operator will provide modern plant and machinery and replace older models with new.

Table 4 – Mobile Plant

Description	Make	Model	Emission Rating
Wheeled 360 machine handler	Liebherr	LH30	Stage IV
Tracked 360 Machine handler	Liebherr	LH30	Stage IV
Wheeled 360 machine handler	Liebherr	LH24	Stage V
Materials re handler shovel	Liebherr	L556	Stage IV
Materials re handler shovel	Lieber	L556	Stage IV

Sharp Brothers (Skips) has a team of mechanics, and a workshop to carry out routine maintenance of all equipment. The processing equipment will be under the manufacturer's warranty for call-outs, servicing and repairs.

New equipment will be subject to service agreements.

All Sharp Brothers (Skips) Ltd. roadgoing vehicles meet Euro VI engines.

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3.3 Dust Suppression

The enclosed building will be equipped with a water-based dust suppression measures which will be implemented for the main waste reception/deposit/processing operations which will prevent emissions of dust from site operations.

There will be no external storage of waste with the potential to emit dust e.g. stockpiles of materials, loading of same and associated activities..

3.4 Visual Dust Monitoring

At all times dust will be monitored by visual inspections. The site manager will ensure dust management measures are undertaken as appropriate to the site operations and current weather conditions that might affect external conditions for vehicles entering the enclosed building. A fine mist water-based dust suppression system will be in constant operation within the enclosed building that will ensure vehicles entering/exiting the building do not release dust to the local atmosphere.

The site manager is responsible for the operation of the dust management plan and all site operatives will be trained and required to take necessary mitigation action. They will also be required to take preventative action to avoid dust by suitable location of sprinklers, misters, clearing any spillages of materials, maintaining water suppression equipment, repair of defective water suppression equipment, maintaining road cleanliness and in good condition and by washing machinery to keep all plant clean and dust or mud free. Additionally, any contractors working on site will be made aware of the provisions of dust management plan and be required to comply with relevant provisions as appropriate to any work they are undertaking on site.

If airborne dust is seen within the immediate area of activity, then the site manager will investigate the incident and ensure additional/alternative mitigating measures are employed, which may include relocation of processing equipment, or redeployment of the sprinklers. Additional measures may include cleaning and damping haul roads and surfaces as and when necessary or imposing further speed limits.

Should weather conditions and operations be such that dust is blown beyond the boundaries of the site, then operations responsible for the generation of airborne dust will be stopped until the weather changes.

Any complaints or incidents will be fully investigated and recorded by the site manager including details of any mitigation or remedial actions taken as per the procedures in the management system. The site manager will ensure that the EA is informed of these within 24 hours, ideally as soon as possible, practically possible and appropriate.

The Dust Management Plan will be reviewed annually by the site manager or otherwise in response to a request from the Environment Agency, changed circumstances such as the operation of new processing plant or substantiated dust complaints.

Tables 6 and 7 provide the risk assessment for dust and the remediation/control measures.



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Table 6: Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Control Measures
Unloading and processing waste	Tracking dust on wheels and vehicles	Local Roads	Visual soiling, also consequent resuspension as airborne particulates	Vehicles will be checked prior to leaving the site and will be cleaned if mud/debris is noticeable on the wheels or chassis. Each driver will be responsible for this process. All vehicles will be on concrete surface. There is approximately 350m of tarmac and concrete estate road before entering the public highway. As the unloading of vehicles is controlled by operatives it is unlikely that vehicles will be directed in a manner that results in waste being tracked out. Use of road sweeper to clean the yard and entrance. Processing of waste is wet.
	Atmospheric dispersion	Nearby industrial premises (workers and pedestrians).	Visual soiling and airborne particulates	Vehicles will only be unsheeted when ready to discharge. Low sensitivity of adjoining properties. No pedestrian access to site.
	Atmospheric dispersion	Residential properties	Visual soiling and airborne particulates	As above, but also the distance and intervening topography between the site and these receptors will reduce any impact.
Debris	Falling of lorries	Local Roads	Visual soiling, and resuspension as airborne particulates	All vehicles delivery and collecting waste will be sheeted. There is a 350m estate tarmac and concrete road before vehicles reach the local highway. A hose and brush will be used to clean the wheels and clean the yard. A road sweeper will be deployed as necessary to clean the yard and access road.
Vehicle exhaust emissions	Atmospheric dispersion	All	Airborne particulates	Most activities carried out inside enclosed building. Regulatory controls and best-practice measures to minimise source strength e.g. FORS Gold, anti-idling policy, auto-shutdown of plant when not in use
Non road going machinery exhaust emissions	Atmospheric dispersion	Local Environment	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength.

Table 7 - Measures used on site to control Dust/Particulates



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Abatement Measure	Description / Effect	Overall consideration and implementation
Preventative Measures		
Enclosure within a building	Creating a solid barrier between the source of dust and particulates and receptors is likely to be the most effective method of control, provided that the building entrances and exits are well managed.	The wash plant is a bespoke system with internal components and is a wet process. There will be concrete storage bays to contain separated materials.
Negative pressure extraction	Within enclosed buildings, controlled extraction can be undertaken to ensure a constant negative pressure relative to the outside air. This system should prevent the emission of particulates from any openings in the building. Extracted air should be treated through a suitable filtration system prior to discharge to atmosphere. This method is more frequently applied for odour control.	This is not necessary as the volumes of potential dust generation is consider medium. The enclosed building operates continuously under a fine mist water-based dust suppression/temperature reduction system.
Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance and downwind from receptors.	The wash plant has been designed to separate the operations from the nearby residents located to the north. The pathway between the source and receptor is prevented using this infrastructure. The risk assessment and controls will prevent dust emissions leaving the site.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Enforcement of a speed limit may reduce re-suspension of particulates by vehicle wheels.	The site speed restrictions will be 5mph for all vehicles and mobile plant. In the event that vehicles are held up to unload, they will be asked to switch off their engines. Banksman will be used to ensure the efficient flow of traffic, control the door opening/closing, and minimise waiting times and reducing unnecessary vehicle manoeuvring. The site entire site is concreted and is remote from the highway to avoid queueing.



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Abatement Measure	Description / Effect	Overall consideration and implementation
Minimising drop heights for waste. Use of enclosed chutes for waste drops/end of conveyor transfers and covered skips / storage vessels.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Enclosing processes will further reduce dispersion.	The process equipment will be set at defined heights. The loading operator will reduce the height of the drop when placing waste into the equipment and loading vehicles.
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	All incoming loads will be unsheeted once ready to discharge. All waste being removed will be in sheeted vehicles.
Good Housekeeping	Having a consistent, regular housekeeping regime will ensure the site is regularly checked and issued remedied to prevent and remove dust and particulate build-up	As part of the daily Site Checks, the TCM carries out 2 hourly checks of the site, but all staff are trained to monitor for any debris or dust on the site and instigate cleaning. The site is cleaned at the end of each working day. On a weekly basis (typically on Saturday), a more detailed clean will take place which will include the process equipment. A hose and brush will be used to clean the yard. A road sweeper will be deployed as necessary to clean the yard and site entrance.
Hosing of vehicles on exit	May remove some dirt, dust and particulates from the lower parts of vehicles.	All vehicles will be checked when leaving the site to ensure vehicle wheels are cleared. All staff will be trained to check on the vehicles. A hose and brush will be used to clean the wheels. All road vehicles will be washed weekly.
Install a wheel wash	Provides a high pressure wash of vehicle wheels and lower parts (including under body) using a series of jet sprays. More effective if vehicles drive through the wheel wash slowly in order that there is sufficient time for dirt to be removed	This is not currently proposed. There will be a hose and brush provided to clean wheels. The entire site is concreted which will allow regularly cleaning. There is 350m of tarmac and concrete estate road between the waste site and highway. Any mud or debris will be reported to the site manager.
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	The Wash Plant is a wet process and activities should not need to stop. The dust suppression system will be activated during operations to prevent the dust becoming airborne. However, in the event of a weather warning from the Met Office, the Site Manager will review the on-site conditions and assess if loading the wash plant can continue.



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Abatement Measure	Description / Effect	Overall consideration and implementation
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Entire site is concreted. A road sweeper will be used to keep the site clean. Daily checks as part of the EMS.
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	The incoming waste will be stored in a concrete bay with three sides. The waste will be kept at 0.5m below the top of the concrete wall. A line will be painted to delineate this. The process will be continuous to maintain capacity.
Reduction in operations (waste throughput, vehicle size, operational hours)	Reducing the amount of activity on site, including no tipping, shredding, chipping or screening of high risk loads during windy weather as well as associated traffic movements should result in reduced emissions and re-suspension of dust and particulates from a site.	The operations are unlikely to be affected by the weather conditions.. The prevailing wind is from the south west. The dust suppression system will be activated during operations to prevent the dust becoming airborne. The wash plant acts as a barrier to wind escaping beyond the site boundary (which is downwind of the prevailing wind). The incoming waste will be contained within a concrete bay.
Use of wheel wash	Vehicles would exit the site via a wheel wash.	It is considered unnecessary given the controls in place and the distance that vehicles travel before reaching the highway.
Remedial Measures		
Netting / micro netting around equipment	Erecting netting around equipment that could give rise to large amounts of dust and particulates may be effective within the site boundary and	The process is wet which will prevent dust emissions.



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Abatement Measure	Description / Effect	Overall consideration and implementation
	prevent their dispersion off-site / their re-suspension within the site.	
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.	The site will be cleaned daily. A road sweeper will be deployed as necessary to clean the external area and entrance.
Site perimeter netting / micro netting	Erecting netting around the site perimeter may capture released debris and dust and particulates prior to it being dispersed off-site.	The use of netting is considered unnecessary as this is a wet process. All waste and products will be stored in bays.
Water suppression with hoses & water jets	Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.	A hose and brush will be provided. This will be used to clean vehicle wheels before exiting the site. The site will be cleaned daily using hose and brushes. A road sweeper can also be used.
Water suppression with mist sprays	Installation of mist sprays around sites, at building entrances/exits and within buildings at point source emissions like conveyors, trommels etc. It can also assist in the damping down of dust and particulates, therefore, reducing emissions from site.	A dust suppression system will be installed to control emissions at source. This will include the reception bay. A mobile system will be used to dampen any products that have dried out. The dust suppression system will be checked daily. Staff will be trained to use the system. The dust suppression system will be activated when receiving waste during dry weather conditions.



Document Reference: EMS OP 03

Dust & Emissions Management Plan

Issue Number: 1

Issue Date: 03/02/2025

Abatement Measure	Description / Effect	Overall consideration and implementation
Shaker grids	Similar to cattle grids, these are installed at a site entrance and exit. The movement of vehicles over the grids shakes dust and particulates from the wheels, thus removing them before vehicles enter the site.	The site is fully concreted and therefore this is not required. Wheel washing will take place before vehicles exit the site, if required.
Water Cannons	Water cannons provide a means for delivery of powerful water streams from a water truck. With variable nozzles, the spray pattern can be controlled and varied between jet and fog. Typical water flows are up to 5000 litres per minute. Water cannons are most often used for fire protection, mining operations, heavy machinery wash down, cleaning and dust and particulate abatement.	Water cannons are usually deployed on sites that store materials outside, for example construction waste and aggregates. These are unnecessary at this site as operations are in an enclosed building.
Screening of buildings / reducing large apertures using plastic strips	Installing plastic strips to cover entrances/exits to buildings may reduce emissions of dust and particulates dispersing through doorways.	Enclosed building provided.
Application of CMA / chemical suppressant	Diluted Calcium Magnesium Acetate (CMA) or other chemical based dust suppressant is regularly applied by spraying using a back-pack applicator for small areas or by road sweeper to cover larger areas. CMA acts as a suppressant with the aim of reducing dust and particulate re-	Typically applied to stockpiles stored outside. This is unnecessary for this operation, no external operations.



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Abatement Measure	Description / Effect	Overall consideration and implementation
	suspension and hence ambient concentrations.	
Heavy Water	Heavy water is used to improve the compaction and stability and reduce dust and particulates on unsealed roads or areas of land. Ideally it is blended into the road construction material as the road is constructed, but where this is not possible it can be sprayed onto the top of the road. Heavy water combines fast acting wetting agents with polymer binders, to allow penetration deep into the material and to 'agglomerate' the dust and particles together.	There are no proposals to utilise heavy water at the site. It is considered that the proposed dust suppression system will be sufficient to achieve adequate dust management.
Foam Suppression	The aggregate and mining industries frequently use foam suppression for the control of dust and particulate emissions, mixing the foam with broken material to increase efficiency. Foaming agents can be added to increase the efficiency of dust and particulate reduction. Foam suppression has seen increased attention in recent years and has previously been applied to waste transfer facilities where crushing of waste occurs. If using foam suppression to control dust and particulates from waste drops, the foam must be entrained within the	There are no proposals to utilise foam suppression at the site. It is considered that the enclosed building equipped with fine mist dust suppression system will be sufficient to achieve adequate dust management.



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Abatement Measure	Description / Effect	Overall consideration and implementation
	waste material and as such must be injected prior to dropping the waste rather than at the bottom of the drop.	

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Other considerations

Water usage/ availability:

Water for dust suppression will be stored in a tank on site. This will be fed with mains water or will use recycled water from the roof water (grey water).

In the event of a drought:

In the unlikely event that there was a ban on the use of water, the operations would continue until such time as the water in the stored tank had run dry. After which time, the operator will assess the conditions and if dust is observed to be leaving the building, the operations will cease until the water supply has been re-established.

Failure of Suppression System:

If the entire dust suppression system fails, the Site Manager will arrange for repair and decide on the best course of action depending on weather conditions. If the downtime is expected to be longer than 48 hours and the weather conditions are dry², the Site Manager will have to provide interim dust suppression measures or cease operations until conditions improve, or the system has been repaired. Interim measures would include hiring mobile dust suppression units for a temporary period.

The system installed will be subject to a service agreement.

² Dry conditions refer to no precipitation (rain, drizzle, sleet, snow)

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4. Monitoring

No monitoring is proposed for this site other than the visual daily checks which are carried out twice a day by the TCM. This will be kept under review and updated in the event of substantiated complaints being received or if the TCM observes increased dust emissions during specific activities. All staff are trained to monitor the cleanliness of the site and implement corrective action if necessary.

Weather conditions will be recorded daily in the Site Diary.

The site diary will also contain details of the various processing operations that take place each day. The site manager will ensure dust management measures are undertaken as appropriate to the site operations and current conditions.

As part of the daily checks, the Site Manager will check the condition of the yard and check if dust is being generated and leaving the site. This exercise will identify whether dust is being generated from other sources in the area.

The DEMP will be reviewed on an annual basis or sooner if requested by the EA. It will also be updated if the operator changes the operation.

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5. Reporting and Complaints Response

The Operations Director, Site Manager and TCM have the overall responsibility for this procedure. It falls under the operator's ISO14001 accredited certification for site operations.

The administration staff will all be responsible for handling complaints and recording on the correct form. All complaints must be referred to the Site Manager.

In this context, a complaint may be received directly from a resident, customer or from a Regulator.

When the site receives a complaint, a record is summarised in the Site Diary. Full details will be provided on the complaints form, see Appendix A.

All staff based in the office will be trained on recording complaints and to make sure they notify the TCM immediately.

The TCM will review the activities that may have given rise to the complaint. If necessary, the CCTV footage will be reviewed to note any specific operational issues that may have given rise to the source of the complaint. Other actions will include:

- Review site diary and establish what site activities were taking place at the time the complaint even occurred.
- Review waste types accepted that day.
- Identify whether there were any other activities in the area taking place that could have generated dust e.g. road works or construction works.
- If it is established that the emissions were attributable to activities being undertaken at the site, as necessary review the relevant operational procedures and implement improvements and provide additional training to site.
- The action taken will be reported to the Environment Agency.

The Site Manager will report the findings to the complainant and implement appropriate corrective action in accordance with a specific management plan or the Operational Procedures.

The TCM will aim to provide feedback within 48 hours of receiving the complaint.

If the site receives several substantiated complaints, the operator will engage the services of an Air Quality specialist to review the site operations and update this DEMP accordingly. Interim measures will be sought to improve conditions until a more permanent solution has been assessed and implemented. If during the interim period, complaints continue to be received, the operator will cease operations until measures have been implemented to prevent dust emissions.

5.1 Engagement with the Community

The immediate neighbours will be contacted, and direct dial telephone details provided for the TCM and main officer number. Email contact details will also be provided. The operator has operated from a nearby facility for many years and fully understands the required commitment to community engagement. The engagement procedure falls within the operator's externally audited ISO14001 systems and procedures.

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Appendix A - Complaint Form

Customer Details	
Customer Name -	
Address -	
Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and speed -	
Investigation findings -	
Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a reoccurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
If different insert reason for delay -	
Does the dust management plan need to be updated -	
Date that the dust management plan was updated -	
Closure	
Site manager review date	
Site manager signature to confirm no further action required	