AC ENVIRONMENTAL CONSULTING

Dust & Emissions Management Plan

Equestrian Surfaces Limited

Phoenix Works, Phoenix Way,
Burnley BB11 5SX

May 2025

Equestrian Surfaces Limited

Ref: ES.PT.DEMP.2505.v5

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Reference & Revision	Issue	Prepared	Approved
ES.PT.DEMP.2005	First Issue	LS	DA
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1. INTRODUCTION

AC Environmental Consulting Ltd, on behalf of Equestrian Surfaces Limited, have prepared a Dust & Emissions Management Plan (DEMP) for the Equestrian Surfaces Limited site located at Phoenix Works, Phoenix Way, Burnley BB11 5SX.

1.1 Site Location

The site is located to the west of the town centre of Burnley and to the south of the M65. The surrounding area of the site is characterised by a mix of uses including industrial and commercial properties to the immediate south, residential properties, the M56 to the north and a railway line to the north.

The nearest residential properties are located to the north of the site, over the M56, and to the south of the site. There are additional commercial and industrial properties within the immediate vicinity of the site, including a vehicle repair shop and car dealer. The M56 and a railway line are located to the north of the site, and Rose Grove train station is situated to the west of the site.

Reference to the DEFRA Air Quality Management Area (AQMA) interactive map indicates that the site is not within an AQMA.

1.2 Site Operations

1.1.1 Equestrian Surfaces Limited is a well-established facility for the recycling of waste and manufacture of equestrian surfaces. The site currently operates under Environmental Permit (EPR/WE2768AB) for the operation of a non-hazardous waste physical treatment facility relating to recycling of carpet waste into equestrian surfaces. The site is currently permitted to accept up to 16,000 tonnes of carpet waste per annum, however, the permit variation seeks to increase this to 60,000 tonnes of carpet waste per annum, which equates to 191 tonnes per day. The site layout will be subject to modification to accommodate the amended throughputs. In addition to creating equestrian surfaces, the site intends to process carpet waste for the production of Solid Recovered Fuel (SRF).

The carpet waste includes carpet underlay material. From a post-consumer and post-industrial perspective, the carpet waste is separated into the waste streams of carpet underlay, synthetic-based carpet, and wool-based carpet.

The site layout is designed to ensure freedom of movement. The permitted area consists of an external yard, three buildings and is entirely surfaced with impermeable concrete. The external yard contains the quarantine area to the northwest, a weighbridge located to the south of the processing building,

two covered areas and two 40 ft ISO containers. The covered areas are used for the storage of product as shown on the Drawing Ref: 250407ES101. The 40 ft ISO containers are primarily used for the structural support of the plastic sheeting roof of the covered areas but are also used for the storage of non-waste equipment. Concrete walls are also used for the structural support of the plastic sheeted covered areas and all external stockpiles will remain 1m below the height of the concrete walls/40ft ISO containers. Within the yard there are numerous concrete storage bays for baled wastes.

The permitted area deals with carpet waste only. The carpet waste includes carpet underlay material. From a post-consumer and post-industrial perspective, the carpet waste is separated into the waste streams of carpet underlay, synthetic-based carpet, and wool-based carpet. The carpet waste is brought onto site using Equestrian Surfaces' own transport and pre-booked deliveries using external contractor vehicles and customer's own transport and is delivered to the tipping area to the west of the site, or the unloading area to the south of the site, depending on the vehicle making the delivery. It is crucial to note that the unloading area is adjacent to the southern concrete block and panel wall which will act as a dust barrier, therefore reducing the risk of the spread of dust from the sorting activities. The tipping area is located in front of the bays to the west, and the concrete block and panel wall to the north will act as a dust barrier from tipping within the tipping area.

The carpet waste is immediately sorted upon arrival and segregated by hand with the assistance of mobile plant into the appropriate waste streams and transferred to one of the concrete walled bays within the external yard prior to processing. The roller shutter doors of the building are standard operation; there are no fast action mechanisms or negative pressure systems implemented. Processing includes the shredding and baling of carpet waste which occurs within the processing building located to the west of the site. Processing occurs only within this building. The locations for the processing, and the storage of the waste and product are shown on Drawing Ref: 250407ES101.

The external yard consists of two covered areas of which an example is shown within Appendix E. It is crucial to note that the stockpiles within the external covered bays will remain 1m below the height of the bay walls at all times to reduce the risk of the spread of dust through wind whipping. The risk of the spread of dust through wind whipping is reduced further by the external bays being covered by plastic sheeting. These covered external bays also have tarpaulin curtains to the front which can be closed to contain the wastes.

External stockpiles (without cover) are used for the storage of unprocessed carpet waste, which have not yet been processed. The concrete walls, the large form storage of the carpet waste, and the short storage duration of the wastes will reduce the risk of the spread of dust from these stockpiles.

This DEMP has been prepared to accompany a bespoke environmental permit variation application to increase the permitted tonnages at the non-hazardous waste treatment facility relating to the recycling of carpet waste into equestrian surfaces. The increase in permitted tonnages will require modifications to the site layout to enhance operational efficiency and accommodate the increased throughput. In addition to creating equestrian surfaces, the site intends to process carpet waste for the production of Solid Recovered Fuel (SRF).

1.3 Potential for Emissions

Due to the type of waste accepted on site, primarily carpet waste, there is the potential for dust to arise. Further information on the potential sources of dust can be found in Section 3.2, which comprehensively outlines activities like material reception, sorting, shredding, baling, and loading.

All areas where vehicles and plant are operated, including the processing and storage areas, are on a impermeable concrete surface. Operating vehicles and plant on the concrete surface will prevent the potential for mud and therefore reduce the risk of material from being transferred onto the public highway by vehicles exiting the site. Regular maintenance, including daily visual inspections, will ensure the integrity of these surfaces. Any accumulation of dust on site will be removed by hand through sweeping, or by using a mechanical sweeper.

The permit variation application seeks to vary the environmental permit to increase the permitted throughput from 16,000 tonnes or carpet waste per annum to 60,000 tonnes.
While this represents a substantial increase in the quantity of waste processed, it is important to clarify that no new activities will be introduced, beyond what is currently permitted. There will be no additional activities associated with this increase. The increase will facilitate the sorting, separation, shredding and baling of carpet waste for the purpose of producing Solid Recovered Fuel (SRF) as well as producing equestrian surfaces.

However, this increased throughput will necessitate a greater intensity of existing operations. Specifically, the expanded operations will facilitate:

- **Enhanced Sorting and Separation:** Increased volumes will lead to a more continuous and extensive sorting process, potentially increasing localised dust generation if not adequately controlled.
- **Intensified Shredding:** The shredding of carpet waste to produce equestrian surfaces and Solid Recovered Fuel (SRF) will be conducted at a higher frequency and volume. This process, by its nature, can be a significant source of particulate matter if appropriate abatement technologies are not fully utilised.

- **Increased Baling Operations:** Baling of both SRF and material for equestrian surfaces will also see a proportionate increase, leading to potential for dust generation during the handling and compaction phases.
- **Greater Material Movement:** The higher tonnage will naturally involve a greater number of vehicle movements for both inbound deliveries and outbound product dispatch, increasing the potential for dust and particulate matter to be tracked out of the site boundary and can lead to re-suspension of dust by other passing vehicles, if not effectively managed.

This necessitates a robust and proactive dust management strategy, as detailed in subsequent sections of this plan, to ensure that the risk of fugitive dust emissions remains below acceptable environmental limits. There are no other expected emissions to be produced on site.

1.4 Emissions Prevention

The operations are governed by the conditions attached to the Environmental Permit. Abatement measures include the use of the onsite mobile mister, manual and mechanical sweeping and the covering of stockpiles with tarpaulin. As part of a management procedure, daily inspections shall take place, and where visible accumulations of dust are present, road sweepers shall be employed to sweep the highway.

A major benefit of the site infrastructure is that the permitted area is entirely concreted through to the highway, making it easy to clean regularly in accordance with the cleaning schedule provided in Appendix B using a manual or mechanical sweeper if any accumulation of dust becomes visible. The easily maintained concrete surface prevents the build-up of potential dust, mud, and debris, therefore reducing the risk of material being transferred to the public highway by vehicles exiting the site.

Beneficial infrastructure includes the external bay walls for the storage of sorted, unprocessed wastes, and the external bays that are covered with plastic sheeting, which both significantly reduce the risk of the spread of dust, particulates and other airborne material through wind whipping. In the event that members of staff detect visible accumulations of dust on the external stockpiles, the mobile mister will be used immediately to dampen the external stockpiles. The mobile mister will be filled using the IBC containers of water on site. The mister system will be activated manually if accumulations of dust become visible upon regular inspection from site staff. The system will work alongside the tarpaulin curtain which is in place permanently across the front of the bay, leaving approximately 1.5m above the ground open, as shown in Appendix G. The means of prevention discussed are based on existing site management procedures and the planning permission guidance. Further details on emission control and maintenance can be found in Table 3.1 and 3.2.

1.4.1 Dust Suppression System

Working alongside the prevention measures above, the processing building, to the west of the site, houses a mist-air dust suppression system. The system implements a dry fog technology which effectively captures dust at shredders, bays, conveyors, and balers, meaning there is less airborne dust.
The mist-air system doesn't create excessive moisture and therefore doesn't wet machinery, stock, or work areas.

The mist-air system is a low power and water consumption system that means that Equestrian Surfaces Limited can operate more safely, efficiently, and sustainably whilst ensuring compliance with dust control regulations.

The system will be operational at all times that the shredder is running.

The maintenance programme for the mist-air dust suppression shall include:

- Regular Inspections:
    - o Daily/Weekly: Visual checks for any visible blockages, inspect for leaks in hoses and connections, confirm the system is activating as expected, observe if the mist is adequately covering the intended dust-generating areas, check the pump operation, check for any fault indicators on the control panel.
    - o Monthly: Check all components for signs of wear, corrosion, or deterioration (hoses, pipes, fittings, electrical connections). This is especially important in hard water areas, as nozzle clogging and system inefficiency can become an issue.
- Preventative Maintenance or Component Replacement:
    - o Regular Cleaning of nozzles
    - o Nozzle replacement: Despite regular cleaning, nozzles can wear out over time due to water pressure and mineral deposits. Establish a schedule for periodic replacement based on manufacturer recommendations or observed performance degradation.
    - o Filter Replacement: Replace water filters regularly, as per manufacturer guidelines, to ensure optimal water purity.

- Record Keeping:
    - Maintain a log of all maintenance activities, including inspections, cleaning, filter replacements, and repairs.
- Professional Servicing:
    - Maintain a comprehensive service of the system at least once a year, by a qualified technician, or the system's supplier

The shredding and baling of carpet waste is anticipated to be the key source of dust on site. It is crucial to note that this activity takes place enclosed within the processing building, which is equipped with the Mist-Air system. Further detail on the Mist-Air dust suppression system is provided within Appendix F.

1.5 Purpose of the DEMP

The purpose of this document is to meet the requirements of and reassure the Environment Agency that the potential for dust produced from the proposed operations mitigated and controlled in every possible way.

The DEMP has been prepared to accompany a bespoke environmental permit variation application for the increase in permitted tonnages and modification to the site layout to enhance operational efficiency and to accommodate the increased throughput.

The audience of this document is the planning authority of Lancashire County Council and Environment Agency for approval, and the operational staff on site. The document will be made available to the onsite operational staff, Environment Agency, and Lancashire County Council officers by being stored in the site office and online. Also, staff will be trained in the requirements of the DEMP via toolbox talks.

1.6 Sensitive Receptors

The site has various sensitive receptors nearby that may be vulnerable to dust emissions. They are referred to as sensitive receptors due to them being in areas where the occupants are more susceptible to the adverse effects of exposure to high levels of dust and particulates. These receptors include residential, commercial, and industrial premises. Mitigation measures in place include the mobile mister and the dust suppression system within the processing building. During any incident, receptors will be notified via phone call or by operatives knocking on doors and informing them of

incident and reassuring them that every dust mitigation measure possible is being undertaken. Their distances to the working area and their sensitivity to dust emissions is shown in Table 1.1.

The nearest residential housing is located 98m to the north of the site on Weavers Fold. The site has several schools nearby, the closest being Ightenhill Nursery School which is located approximately 475m to the north of the site. There are several care homes also within 1km of the site, the closest being the Grove Care Home which is situated approximately 650m to the northwest of the site. There are also several medical centres near the site, the closest being NHS Gannow Lane Resource Centre which is located approximately 187m to the north of the site.

Furthermore, a 0.58-hectare area of deciduous woodland, identified as a priority habitat, is situated 33m to the north of the site.

There are no additional sensitive receptors within 1km of the site.

Due to the nature of the operations on site, the greatest proportion of dust emitted is largely deposited within 100m of the dust source. As stated by The Guidance on the Assessment of Mineral Dust Impacts for Planning 2016, it is acknowledged that the greatest impacts will be within 100m of the source, referring to both small and large dust particles. This indicates that the receptors lying beyond 100m from the site will not be greatly impacted by any potential dust producing operations on the site. The less dense dust material only reaches a maximum of 100m, meaning the receptors beyond 500m of the site are at very low risk of being impacted by fine dust. As stated above, all sensitive receptors, excluding the residential housing and the NHS Gannow Lane Medical Centre, are at a further distance than 500m from the site. The map displaying the locations of the sensitive receptors is shown in Figure 1.1. There are also dust producing operations occurring close to the residential housing, including a scrap metal dealer, a car dealer, and a truck repair shop.

Additional receptors not considered sensitive within the 1000km radius includes the Moorhouse Brewery located approximately 180m to the southeast, the NWF Fuels oil field situated approximately 170m to the south and numerous pubs/bars in the surrounding area. These receptors are not considered to be sensitive as they are not residential properties, schools, medical centres, or care homes. The site is predominantly surrounded by additional industrial and commercial businesses.

There are no other expected emissions to be produced on site besides dust. The operations on site will not cause the receptors positioned further away from the site to be given greater consideration in terms of dust impacts. There are no factors that would cause a receptor close to the site not to be considered a receptor. There are however other sources of dust close to some of the receptors,

including a scrap metal dealer, a car dealer, and a truck repair shop. Detail on the other potential local sources of dust is given in Table 1.2.

A wind rose from the weather station in Burnley, shown in Figure 1.2, indicates that the prevailing winds blow from the northwest. This suggests that the receptors situated to the northwest of the site will be the most impacted by potential dust.

Figure 1.1 Nearby Sensitive Receptors

Care Homes

A. Voyage care
B. The Grove Care Home

Medical

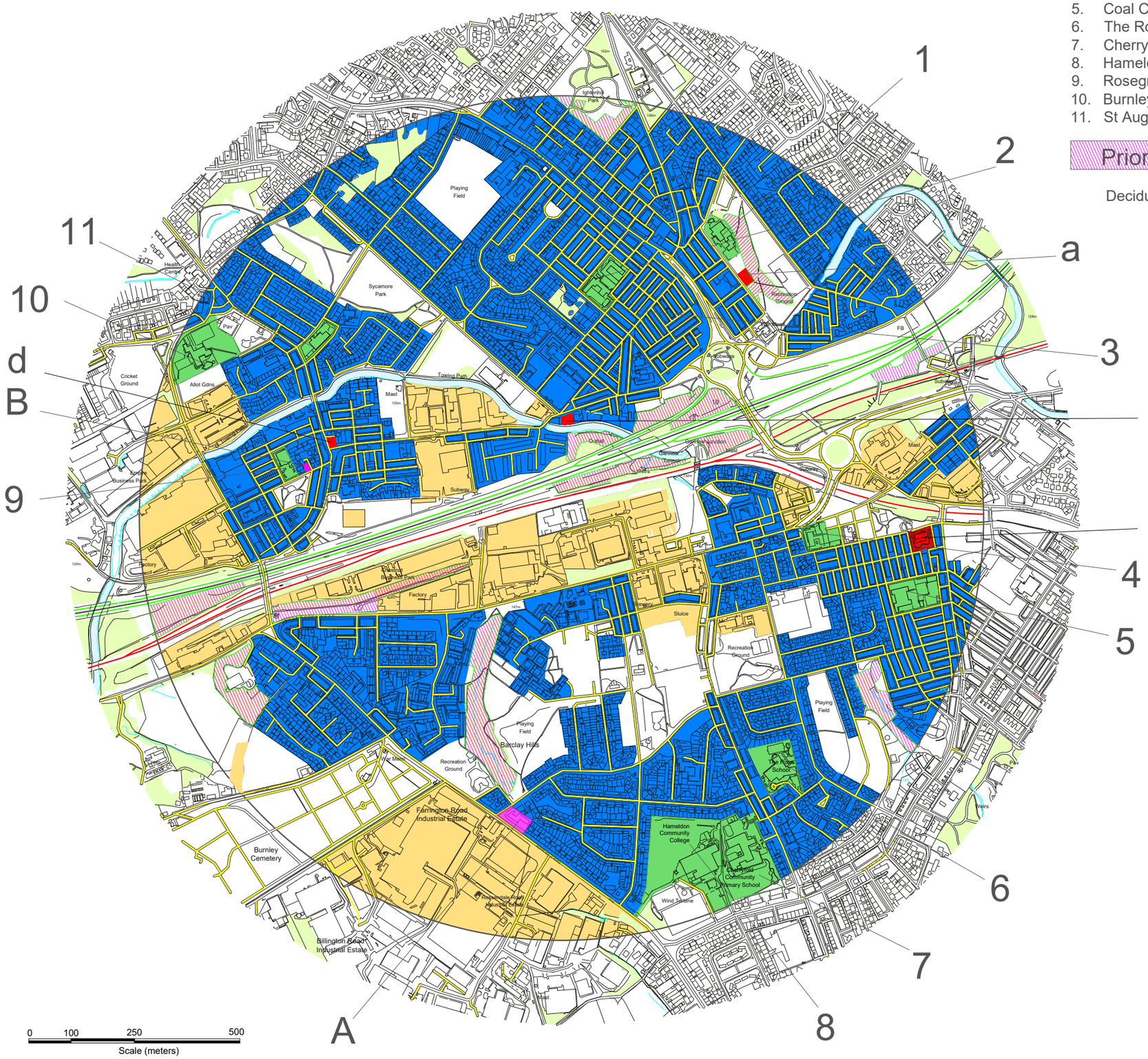
a. Ightenhill Medical Center
b. NHS Gannow Lane Resource Centre
c. Howard Streeet Community Health Centre
d. Rosegrove Surgery

Educational

1. Whittlefield Primary School
2. Ightenhill Primary school
3. Ightenhill Nursery School
4. Taywood Nursery School
5. Coal Clough Academy
6. The Rose School
7. Cherry Fold Community Primary School
8. Hameldon Community College
9. Rosegrove Infant School
10. Burnley Lowerhouse Junior School
11. St Augustine of Canterbury RC Primary School

Priority Habitat

Deciduous Woodland



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Environment House
Werrington Road
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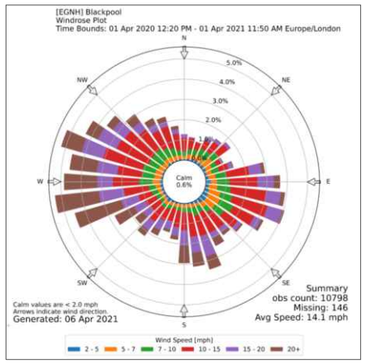
ST2 9AF



- Residential
- Educational
- Medical
- Care homes
- Road
- Rail
- Motorway
- Priority Habitat

REV	DATE	DETAIL

CLIENT
EQUESTRIAN SURFACES

SITE
Phoenix Works,
Phoenix Way,
Burnley BB11 5SX

PROJECT
PERMIT APPLICATION

TITLE
KEY RECEPTOR

SCALE @A3	DATE	DRAWN BY	CHECKED BY
1:10000	June 2025	T Kearns	D Alcock

DRAWING NO	REVISION
250407ES103	

Figure 1.2 Wind Rose showing the average wind direction and strength at Equestrian Surfaces Limited

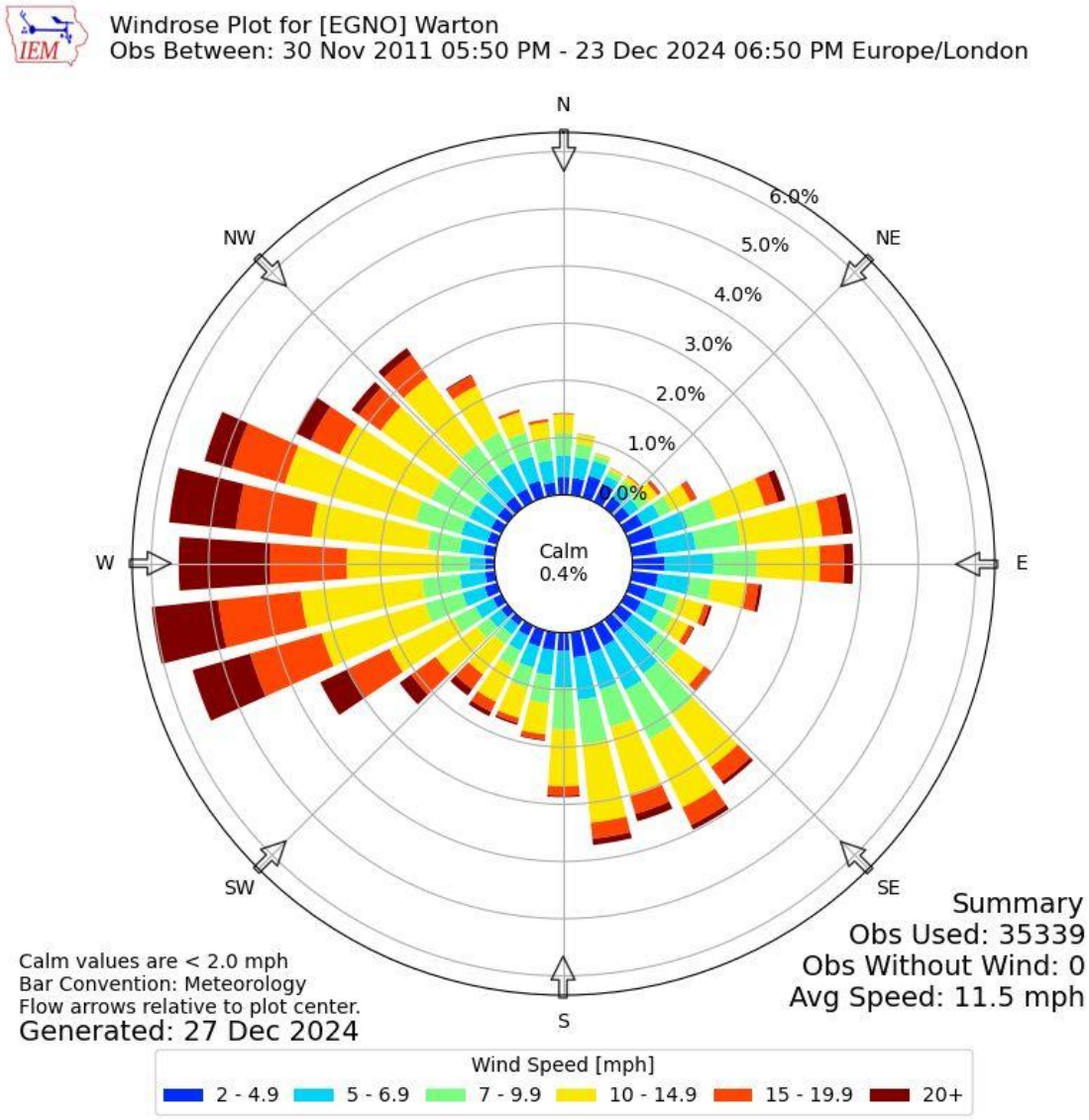


Table 1.1 Distances to Selected, Representative Sensitive Locations

Boundary	**Closest Property**	**Approximate distance to Equestrian Surfaces Limited (m)**
North	Residential properties on Weavers Fold	98
South	Residential properties on Accrington Road.	140
All	Residential properties	140 – 1,000
East	Taywood Nursery School	555
Southeast	Coal Clough Academy	815
Southeast	The Rose School	807
Southeast	Cherry Fold Community Primary School	865
Northeast	Ightenhill Nursery School	515
Northeast	Ightenhill Primary School	595
Northeast	Whittlefield Primary School	755
Northwest	Rosegrove Primary School	725
Northwest	St Augustine of Canterbury RC Primary School	760
Northwest	Rosegrove Infant School	700
Northwest	Burnley Lowerhouse Junior School	980
Northwest	Grove Care Home	650
North	Ashmeade	870
North	Brook House Residential Home	920
North	NHS Gannow Lane Resource Centre	187
Northwest	Rosegrove Surgery	517
Northeast	Ightenhill Medical Centre	690
East	Howard Street Community Health Centre	778

Northwest	Burnley Group Practice - Kiddrow Lane Site	1,000

Table 1.2 Sources of Dust and/or other Emissions

Company	**Address**	**Type of Business**	**Distance from Equestrian Surfaces (m)**
Tufflite	Unit 2 Smallshaw Industrial Estate, Phoenix Way, Burnley BB11 5SX	Civil Engineering	50
Eyre & Elliston	Unit 3, Smallshaw Industrial Estate, Accrington Rd, Burnley BB11 5SX	Electrical Wholesaler	75
AVS Vehicle Services	Smallshaw Industrial Estate, 11 Phoenix Way, Burnley BB11 5SX	Vehicle Repair Shop	200
Tempest Motors Ltd	Unit 4, Phoenix Way, Smallshaw Ind Est, Burnley BB11 5SX	Car Dealer	90
CK Motors	21, Smallshaw Industrial Estate, Phoenix Way, Burnley BB11 5SX	MOT Centre	140
EFS Global Warehousing	Phoenix Way, Burnley BB11 5SN	Warehouse	70
EFS GLOBAL | Express Freight Solutions	EFS HOUSE, Phoenix Way, Burnley BB11 5SX	Logistics Service	125

E.F.S Commercials	Phoenix Way Off, Smallshaw Ln, Burnley BB11 5SX	Truck Repair Shop	150
NWF Fuels	304 Accrington Rd, Burnley BB11 5EU	Oil field	165
Auctio4Cars Burnley	Smallshaw Ln, Burnley BB12 6JJ	Car Dealer	290
Railway Line	N/A	Railway Line	55
M65	N/A	Public Highway	95
Perry's Burnley Vauxhall	Accrington Rd, Burnley BB11 5EX	Car Dealer	210
Linox Stainless Steel Stockholder	Unit 2/A, Hargher Clough Mills, Bruce St, Burnley BB11 4BL	Steel Stockholder and Supplier	605
Carpet Market	Unit 28 Accrington Rd, Burnley BB11 5EF	Carpet Retailer	380
A2z Canopies	Victoria House, Accrington Rd, Burnley BB11 5EF	Plastic Fabrication Company	360
In2 Plastics	Unit 6, Chestnut Business Park, Smallshaw La, Burnley BB11 5SQ	Plastic Fabrication Company	575
Solar 21 (UK) Ltd	508 Accrington Rd, Burnley BB11 5DP	Solar Energy Equipment Supplier	635
Assured Materials Handling	27 Rossendale Rd, Burnley BB11 5DQ	Forklift Dealer	700
Wrong Fuel Burnley	14 Drammen Ave, Burnley BB11 5EA	Vehicle Repair Shop	540
Futaba-Tenneco	50 Liverpool Rd, Burnley BB12 6HQ	Car Factory	925
Seward Precision Fabrications Ltd	Gannow Business Park/Gannow La, Burnley BB12 6JJ	Sheet Metal Contractor	400

Wards Of Burnley Ltd – Vehicle Recovery	15 Gannow Ln, Burnley BB12 6HY	Towing Service	435
A M R (Burnley) Ltd	Unit 3, Gannow Business Park, Gannow Lane, Burnley BB12 6JJ	Laser Cutting Service	480
Burnley Hire Centre	149 Accrington Rd, Burnley BB11 5AL	Tool Rental Service	500

2. OPERATIONS AT EQUESTRIAN SURFACES LIMITED

2.1 Waste Deliveries to Equestrian Surfaces Limited

Wastes are brought to the site by the site's own articulated and rigid lorries, pre-booked deliveries using external contractor vehicles and customer's own transport; therefore, checks are undertaken by staff to ensure the suitability of the wastes accepted and can begin at the client's site prior to pick up. The types of vehicles used consist of articulated lorries and rigid vehicles (mixture of 40cyd skip lorries and curtain sided lorries) which will be Tier 4 emissions rated and keep the waste loads fully enclosed within the trailers. Further detail on the waste accepted on site, the onsite processes and their destinations within the facility are shown in Table 2.1 and Figure 2.1. The site will accept deliveries of waste between the hours of 06:00 – 18:00 Monday to Friday and 06:00 – 12:00 on Saturdays. On occasion the site will need to operate 24/7.

Drivers are required to inspect loads prior to uplift and the checks include load security, potentially dangerous wastes, and hot loads. If a load is deemed to present a risk, then the driver reports this to site management who will advise the customer that the load cannot be collected and the reasons for that.

Loads are also inspected at the site by site staff prior to unloading. Loads being unloaded are also supervised so that any issues which were hidden and not identified prior to unloading can be seen. The aim of this is to ensure that a problematic load is not unloaded and allowed to stand for a period of time, potentially allowing dust and emissions to accumulate. Prior to unloading an accepted load, the load will be dampened down with an onsite mobile mister to reduce the risk of dust becoming airborne and exceeding the height of the boundary walls and being carried on the breeze. The mister will be filled with water from the IBC containers on site. Loads are inspected to ensure the following criteria is met:

i) EWC Code on the waste transfer note conforms to the waste inside the container.
ii) Permit waste acceptance criteria – waste meets with the criteria of the environmental permit and the planning permission for example, waste accepted would be within the permissible tonnage and waste type acceptance criteria.
iii) The waste is not odorous – waste is likely to be odorous if it has elements of putrescible waste and food residue.

If an issue is identified at the site with non-conforming waste, the load shall be transferred to the quarantine area and site management alerted. Action taken may be to segregate and remove the

problematic waste to a secure area or to sort the load, removing acceptable waste to recycling and to invite suitable qualified contractors to collect the problematic waste.

A driver induction will be conducted, and this briefing includes information on dust mitigation. Waste will only be accepted on site where the waste has been pre-booked with the office staff. Waste accepted onto the site from 3rd parties will be visually inspected upon reception to the site in order to ensure that the waste is compliant with the site's permitted waste types and EWC Code description given by the produce/holder as listed on the waste transfer description.

Any wastes that do not comply with the site's permitted waste types shall be reloaded, rejected, and recorded in the rejection log.

There is a weighbridge on site where all vehicles will be weighed on arrival prior to unloading and on exit. All weights will be recorded and kept within the office. Further detail on this procedure can be found in the Site Management Plan.

In terms of records, Duty of Care notes, Waste Transfer notes are all kept. Additionally, input records consisting of EWC Codes as well as the source and quantity of the waste received will also be kept.

2.2 Overview of Waste Processing, Dust and Other Emission Controls

Equestrian Surfaces Limited currently operates under Environmental Permit reference EPR/WE2768AB for the operation of a non-hazardous waste physical treatment facility relating to the recycling of carpet waste into equestrian surfaces. The operator requests a bespoke environmental permit variation to facilitate the increase in the maximum accepted tonnage of carpet waste. The current permit allows for 16,000 tonnes per annum; the proposed variation seeks to raise this to 60,000 tonnes per annum. The site layout will be subject to modification to accommodate the amended throughputs.

The permit variation will enable the site to accept up to 60,000 tonnes of carpet waste per annum, which equates to 191 tonnes per day. The increase in permitted tonnes will facilitate the sorting, separation, shredding and baling of carpet waste for the purpose of producing Solid Recovered Fuel (SRF) as well as equestrian surfaces. The carpet waste includes carpet underlay material. From a post-consumer and post-industrial perspective, the carpet waste is separated into the waste streams of carpet underlay, synthetic-based carpet, and wool-based carpet.

The site layout is designed to ensure freedom of movement. The permitted area consists of an external yard, three buildings and is entirely surfaced with impermeable concrete. The external yard contains the quarantine area to the northwest, a weighbridge located to the south of the processing building,

two covered areas and two 40 ft ISO containers. The covered areas are used for the storage of unsorted carpet bales, reject (waste), and product, as shown on the Drawing Ref: 250407ES101. The 40 ft ISO containers are primarily used for the structural support of the plastic sheeted roof of the covered area but are also used for the storage of non-waste equipment. Concrete walls are also used for the structural support of the plastic sheeted covered areas and all external stockpiles will remain 1m below the height of the concrete walls/40ft ISO containers. Within the external yard there are also numerous concrete storage bays for sorted, unprocessed carpet wastes.

Currently the facility only processes synthetic carpet, and any wool carpet, which is segregated out, is returned to the household waste recycling centres. The permit variation seeks an increase in the permitted tonnages, which will also facilitate the processing of wool carpet to become Solid Recovered Fuel (SRF).

Post-industrial synthetic carpets (carpets received from manufacturers) undergo are processed to produce fibre for blending into an equestrian surface product. Post-consumer synthetic carpets will also be shredded for SRF production.

Post-industrial wool carpets are not handled, as manufacturer-supplied waste predominantly consists of synthetic materials.

Wool carpets and post-consumer synthetic carpets are largely sent for disposal in landfill. Producing Solid Recovered Fuel (SRF) from this carpet waste directly contributes to landfill diversion by transforming non-recyclable materials into a valuable energy source. This process significantly reduces the volume of waste sent to landfill, thereby conserving valuable land space and mitigating the environmental burdens associated with traditional waste disposal.

The carpet waste is brought onto site using Equestrian Surfaces' own transport and pre-booked deliveries using external contractor vehicles and customer's own transport and is delivered to the tipping area to the west of the site, or the unloading area to the south of the site, depending on the vehicle making the delivery. The carpet waste is immediately sorted by hand and with the assistance of mobile plant. It is crucial to note that the unloading area is adjacent to the southern concrete block and panel wall which will act as a dust barrier, therefore reducing the risk of the spread of dust from the sorting activities. The tipping area is located in front of the bays to the west, and the concrete block and panel wall to the north will act as a dust barrier from tipping within the tipping area. The waste is then transferred to the larger building to the west of the site, for processing. The roller shutter doors within the processing building are standard operation; there are no fast action mechanisms or negative pressure systems implemented.

Processing includes the shredding and baling of carpet waste which occurs within the larger building located to the centre of the site. All waste processing occurs indoors.

Depending on the waste stream, the carpet waste is processed to produce SRF, or it is processed to produce equestrian surfaces. The locations of the storage areas for each waste stream and product are shown on Drawing Ref: 250407ES101: The concrete bays within the processing building are for the storage of baled SRF; and the storage building to the boundary at the east will be for the storage of baled equestrian surfaces product. Additionally, product will be stored in one of the covered areas shown as '1' and '2' on Drawing Ref: 250407ES101. Once the product has been produced, it is stored for a maximum of 7 days (depending on the input level).

Product for equestrian surfaces is processed to meet with end-of-waste criteria.

The enclosure of all waste processing and waste and product storage within a building or a covered area will significantly reduce the risk of the spread of dust to surrounding properties.

The covered areas, shown as '1' and '2' on Drawing Ref: 250407ES101, have a roof consisting of plastic sheeting as shown in Appendix E and all external stockpiles will remain 1m below the height of the covered area walls to prevent the spread of dust through wind whipping.

The concrete walled storage bays in the external yard are for the storage of sorted, unprocessed carpet wastes. Storage in these areas will be for the shortest practicable duration, with materials rotated and processed promptly to minimise exposure to weather.

It is important to note that there are two skips stored in the external yard. One contains wood / cardboard waste, and the other contains general waste. These are for the storage wastes generated from the activities on site, and not for the storage of received wastes.

The site is fully enclosed by a perimeter consisting of a concrete block and panel wall along the northern boundary, the south of the western boundary, and the west of the southern boundary. 2.1m high palisade fencing is installed along the remaining boundaries. To the northern boundary, the neighbouring property is at a higher elevation, and there is also palisade fencing sat above the wall at this higher level.

The permitted area is entirely surfaced with impermeable concrete which is easy to clean. The concrete surface will be cleaned consistently in accordance with the cleaning schedule provided in Appendix B using either manual or mechanical sweepers when there is the visible accumulation of dust or immediately following an incident. The site access roads are constructed of tarmac which allows easy and efficient removal of potential dust accumulations.

Table 2.1 Typical waste types brough to Equestrian Surfaces Limited

General waste type	Process	Destination within the facility
Carpet	Once accepted onto site, carpet waste is unloaded and segregated into appropriate waste streams and transferred to the assigned concrete walled bays within the external yard, prior to processing. The wastes within these concrete walled bays will remain 1m below the height of the bay walls at all times. Processing includes shredding and baling and will occur within the processing building, the larger building located to the west of the site.	The concrete bays within the processing building are for the storage of baled SRF; and the storage building to the boundary at the east will be for the storage of baled equestrian surfaces product. Additionally, product will be stored in one of the two assigned covered areas in the external yard. These external waste material stockpiles are covered with plastic sheeting and will remain 1m below the height of the bay walls at all times.

Figure 2.1 Site Layout Plan showing the destinations of the onsite processes.

2.3 Mobile Plant and Equipment

Nitrogen Dioxide gas is a by-product of internal combustion engines, and the site uses several items of plant with internal combustion engines. When not in use and out of hours, the mobile plant is stored in the mobile plant storage area. The following table lists the type of and emission ratings for the mobile plant and equipment used on site:

Description	Make	Emission Rating
JCB Loadall Shovel x 2	JCB 514.70, JCB 542.70	Tier 4
Yanmar Excavator	ViO80	Tier 4

Plant machinery will be maintained by the supplier and will be serviced in accordance with the manufacturer's specifications and recommendations with a LOLER being performed annually. Plant will be cleaned down at the end of the working week. Defect checks will be performed daily by the user of the plant machinery and any defects noted will be recorded on the defect form and the repair will be arranged with the supplier.

In the event of a breakdown, either of vehicles, plant or machinery, a contingency process is followed which involves options such as fixing the item internally, covering the broken down item with a replacement, hiring a supplier to fix the item and renting additional equipment. If not of these options are suitable, operations may have to cease on site and the relevant affected parties will be contacted immediately with a date of when operations can continue.

Equestrian Surfaces Limited will consider, as part of their buying policy and BAT assessment, the emission limits of all new plant due for renewal / replacement.

Both ultra-low and low sulphur fuels are used. Breakdowns will be recorded, and the Environment Agency will be contacted with the nature of the problem and when it is expected for the site to return to normal operations.

Staff are trained on induction and are given refresher training at least annually via toolbox talks. Visitor driver inductions are given to inform them of all dust mitigation measures they can undertake. Control measures in place to reduce emissions include the strong enforcement of a ban on idling site vehicles and plant.

3. DUST AND PARTICULATE (PM_{10}) MANAGEMENT PLAN

3.1 Responsibility for Implementation of the DEMP

The Site Manager will exercise day-to-day control of the site, either personally or by delegation to suitably trained and responsible staff. The Site Manager will be responsible for the satisfactory working of the site and for ensuring compliance with the DEMP.

Daily records will be kept at the start of operations and again in the middle of the working day. The records will be kept on site for a minimum of two years and will be made available on request for inspection by the relevant authorities including the Environment Agency and Lancashire County Council.

Staff at all levels will receive the necessary training and instruction in their duties relating to all operations and the potential sources of dust emissions. Particular emphasis will be given to plant and equipment malfunctions and abnormal conditions. Staff are trained on induction and given training at least annually via toolbox talks.

The Site Manager will ensure that external hauliers and other visitors are aware of the need to comply with the provisions of this plan so far as they are relevant to their activities on site.

Any member of staff who fails to comply with the provisions of the DEMP will be re-trained as necessary. External hauliers and other visitors failing to observe the requirement of the plan will be asked to leave the site.

The DEMP will be reviewed annually or in response to an incident.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

3.2.1 Sources of Potential Emissions

The principal dust sources anticipated would be from waste processing, loading, and offloading operations, and site transport, which may also raise visible dust.

The main site operations with the highest risk of producing dusts is the use of machinery for the processes including the shredding and baling of carpet waste. However, it is crucial to note that all processing occurs indoors within the processing building to the west of the site, and mitigation measures, such as the use of a mobile mister to dampen down stockpiles, and the Mist-Air dust suppression system within the processing building will be in place consistently. The mobile mister will be filled with water from the IBC containers on site. Undertaking all processing operations indoors significantly reduces the risk of potential accumulations of dust being blown off site to neighbouring

properties. The storage of all waste and product on site, excluding the baled waste, is also enclosed indoors or within one of the plastic sheeted covered areas in the external yard. Despite the tipping and unloading areas being located outdoors, this area is for the immediate sorting of waste upon receipt only, and no waste will be stored in this area. It is crucial to note that the unloading area is adjacent to the southern concrete block and panel wall which will act as a dust barrier, therefore reducing the risk of the spread of dust from the sorting activities. The tipping area is also situated near to concrete bays which will act as a dust barrier. Once sorted and segregated, waste will be transferred immediately indoors to the assigned concrete walled bays within the processing building.

As shown in Figure 1.2, the prevailing winds blow from the west. This shows that the wind blows towards the industrial units to the east, and to the residential areas and the commercial and industrial properties beyond.

Below, Table 3.1 details the potential sources of dust from operations being undertaken on site and their pathways, receptors, and suitable mitigation measures.

Table 3.1 Source-Pathway-Receptor routes for dust producing operations on site.

Source	Pathway	Receptor	Mitigation
Vehicles entering and/or leaving the site with mud on wheels and tracking dust on to or off the site.	Tracking of mud and dust onto public highway and subsequent atmospheric dispersion.	All	Misting down of vehicles with the onsite mobile mister if debris is visible. Site based or 3rd party sweepers used to clean the highway if accumulation of mud and dust is visible. The site has a fully concreted surface, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles. The onsite mobile mister will be used in the event of the visible accumulation of dust.
Debris falling off vehicles that arrive uncovered.	Tracking of debris on to the site from external vehicles and subsequent	All	Routine check of vehicles as they enter the site. Consistent sweeping of the site surface when accumulation of debris is visible. The site has a fully concreted surface, making it easy to

	atmospheric dispersion.		clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Vehicles and plant moving around the site kicking up dust.	Atmospheric dispersion from the movement of vehicles around the site.	All	All vehicles and plant only operate on the concrete surface. Site speed limit is strictly set to 5mph and vehicle idling is prohibited. The onsite mobile mister will be used to dampen the concrete surfaces. Consistent sweeping and cleaning of concrete surface in accordance with a strict cleaning schedule. Operations will cease in windy weather where airborne dust is visible. The site has a fully concreted surface, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Road vehicles unloading waste.	Atmospheric dispersion	All	Prior to tipping of the waste, loads will be dampened down using the onsite mobile mister. Mister used to dampen concrete surfaces. Consistent sweeping as part of a cleaning schedule and when accumulation of dust is visible. Operations will cease in windy weather where airborne dust is visible. The site has a fully concreted surface, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.

Shredding and baling of carpet waste	Atmospheric dispersion	All	All shredding and baling of carpet waste is enclosed indoors within the processing building to the west of the site. Within the building the Mist-Air dust suppression system will reduce the level of airborne dust. Consistent sweeping as part of a cleaning schedule and when accumulation of dust is visible. Operations will cease in windy weather where airborne dust is visible. The site has a fully concreted surface, making it easy to clean.
Windblown dust from exposed stockpiles	Atmospheric dispersion	All	External stockpiles consist only of unprocessed carpet waste which are stored in large form. Where there is potential for dust to arise from these stockpiles, these stockpiles will be dampened down with the mobile mister. Additionally, storage in these areas will be for the shortest practicable duration, with materials rotated and processed promptly to minimise exposure to weather. All processed stockpiles are stored indoors or within one of the covered areas which significantly reduces the risk of the spread of dust through wind whipping. All external stockpiles will remain 1m below the height of the bay walls. Stockpiles will be dampened with mobile mister. In windy weather stockpiles will be misted prior to loading materials.

Spread of dust from external product bay	Atmospheric dispersion	All	A tarpaulin curtain will be in place at all times across the front of the bay.
JCB Loadalls	Atmospheric dispersion	All	All plant is operated on the concrete surface. Onsite mobile mister used to dampen concrete surfaces as well as consistent sweeping and cleaning to keep surface free from dust/mud. Operations will cease in windy weather where airborne dust is visible.
Site surfaces	Wind-whipping of surface dust and subsequent atmospheric dispersion	All	Site speed limit is strictly set to 5mph limiting wind-whipping from vehicles. Onsite mobile mister used to dampen concrete surfaces. Concrete surfaces make them easy to consistently sweep during cleaning schedule when accumulation of dust is visible. The site has a fully concreted surface, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Loading waste back onto vehicles	Atmospheric dispersion	All	Misting down vehicles before they exit the site if there is visible accumulation of debris. Operations will cease in windy weather where airborne dust is visible.
Particulate emissions from the exhaust of vehicles/plant/ Machinery on site	Atmospheric dispersion	All	Site speed limit is strictly set to 5mph and vehicle idling is prohibited. The use of low sulphur fuels and downward facing exhausts/blow off valves.

Generators, plant, and other non-road going mobile machinery	Atmospheric dispersion	All	Site speed limit is strictly set to 5mph and vehicle idling is prohibited. Consistent sweeping as part of a cleaning schedule when accumulation of dust is visible.

3.2.2 Controls

The operations will be governed by the bespoke environmental permit which may be granted. The following means of prevention are based on existing site management procedures and the planning permission guidance.

Relevant parts of current best practice for minerals can also be taken to apply to waste management and processing operations and will be referred to as appropriate. The essence of guidance for the minerals industry is that dust impacts can be controlled by effective site management.

Weather Conditions

As an over-riding requirement, if during windy conditions any operations are identified as causing or likely to cause visible emissions across the site boundaries, or if abnormal emissions are observed within the site, the Site Manager will immediately modify, reduce, or suspend those operations until either effective remedial actions can be taken or the weather conditions giving rise to the emissions have moderated.

A propriety windsock will be obtained and installed. This will provide a ready indication of the approximate wind strength and will show the direction in which any airborne dust is likely to be carried.

A trigger system will be adopted to identify those weather conditions when there is an increased or high risk of windblown dust. The trigger levels are detailed in the following matrix.

Table 3.2 Wind-blown dust risk matrix

Wind Speed			**Rainfall**		
Beaufort	ms-1	mph	Dry	Light showers	Heavy rain
5 +	8 +	18 +	Red	Red	Amber
3 – 4	3 – 8	8 – 17	Red	Amber	Green
1 - 2	0 - 3	1 - 7	Amber	Green	Green

The trigger levels will be interpreted as follows:

- Green: Wind-blown dust not normally likely to occur in significant quantities – normal dust suppression measures to be employed;
- Amber: Increased risk of wind-blown dust – additional checks on downwind boundary for visible dust – stockpiles will be inspected and treated as necessary in accordance with management relating to wind-blown dust across stockpiles; and
- Red: High risk of wind-blown dust – no dusty activities to take place if winds blow from the west – stockpiles will be inspected and treated as necessary in accordance with management relating to wind-blown dust across stockpiles.

When "red" conditions occur, and the wind blows from the west, all outdoor, dust generating operations will be immediately suspended.

Loading and Unloading

Prior to unloading, loads will be dampened down using the onsite mister to reduce the risk of potential dust becoming airborne and exceeding the height of the boundary walls, being carried by the breeze, and reaching the residential neighbours. It is crucial to note that the unloading area is adjacent to the southern concrete block and panel wall which will act as a dust barrier, therefore reducing the risk of the spread of dust from the sorting activities. The tipping area is also situated near to concrete bays which will act as a dust barrier. Drop heights will be controlled during all loading and unloading operations to reduce the entrainment of dust into the atmosphere. Routine misting of stockpiles will take place to dampen the material and reduce dust emissions when the material slumps.

Site Traffic

All site traffic will keep to designated routes. The designated routes will be dampened using the onsite mobile mister and will be swept where accumulations of dust are visible to dampen and remove any loose materials.

Standard good practice will be adopted for site traffic, including:

- Avoiding abrupt changes in alignment;
- Regular clearing, wetting and maintenance of yard surfaces;
- Setting site speed limit strictly to 5mph;
- Fitting site plant with upswept exhausts and radiator fan shields;
- Evenly loading vehicles to avoid spillages; and

- Regular application of water in dry conditions

Road Transport

All vehicles carrying material into or out of the site will be securely sheeted. The wheels, chassis, and under-bodies of departing vehicles will be cleaned and further inspected by the driver before proceeding towards the site entrance. A drained hard-standing equipped with a brush will be provided for this purpose.

All site surfaces will be dampened in particular conditions such as dry, hot, or windy weather or when accumulations of dust are visible through the use of the onsite mobile mister. Yard surfaces will be cleaned at least weekly using a road sweeper and swept as necessary to remove loose materials. The concrete surfaces will be cleaned consistently during operational hours in accordance with the cleaning schedule provided in Appendix B. A speed limit of 5mph will be set on site.

The site entrance will be inspected daily to ensure that track-out is not carried out onto the public highway. A road sweeper will be deployed when accumulations of dust are visible to remove any muddy or loose deposits.

Wind-blown across stockpiles and loose materials

Material stockpile areas will be clearly designated. Loose materials both inside and outside these designated areas will be swept to minimise generation of wind-blown dust.

Other Matters

General matters and the management of the site can affect the likelihood of significant dust emissions. These include:

- High standards of housekeeping to minimise track-out and wind-blown dust;
- The use of clean water for dust suppression, to avoid re-circulating fine material; and
- Effective staff training in respect of the causes and prevention of unacceptable emissions of dust.

The water supply to the dust suppression installations will be protected against frost to ensure availability at all times.

3.2.3 Maintenance

Effective control of dust emissions requires the maintenance and proper operation or all plant and equipment, including fixed and mobile dust suppression equipment. A programme of planned

maintenance will be carried out on all plant and equipment in accordance with the manufacturer's recommendations to ensure that it operates at optimum efficiency.

Stocks of essential spares and consumable items will be held at the site of kept readily available for use at short notice.

Any malfunction or breakdown leading to abnormal emissions will be dealt with promptly and operations will be modified or suspended until normal working can be restored. All such malfunctions, and the actions taken, will be recorded in the site logbook. If control measures fail operations will cease and the regulator will be informed.

Table 3.3 Measures that will be used on site to control dust/particulates (PM_{10}) and other emissions.

Abatement Measure	Description/Effect	Overall consideration and implementation	Trigger for implementation
Preventative Measures			
Site / process layout in relation to receptors	The location chosen for the development of the operation is as far as is reasonably practical from local sensitive receptors as can be designed.	Easy to implement as part of good practice. Site activities are strategically positioned to lower the risk of adverse impact on surrounding receptors.	This measure will be used the entire time that the site is operational.
Site speed limit, 'no idling' policy and minimisation of vehicle movement on site	The speed limit on site is 5 mph. Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery. Enforcement of speed limit reduces re-	Easy to implement as part of good practice. Drivers are inducted onto site and speed limits are strictly enforced by site management.	Speed limits are in place at all times. Failure to comply with speed limits shall be a disciplinary matter for staff and cause other drivers to be banned from the site.

	suspension by vehicle wheels.		
Minimising drop heights for waste	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.	Easy to implement as part of good practice.	Site staff are trained in the various dust mitigation measures required on site. This is done at induction and reinforced through annual toolbox talks. Any changes to the DEMP are also introduced to staff via toolbox talks.
Good house-keeping	Having a consistent, regular housekeeping schedule that is supported by management, will ensure site is regularly checked and issues remedied to prevent and remove dust and particulate build up. A cleaning schedule is in place to ensure that any accumulations of dust that do occur are removed weekly. A copy of the cleaning schedule can be found in Appendix B.	Easy to implement and requires minimal equipment. Encourages a sense of pride and satisfaction amongst the staff which promotes vigilance and a positive culture. Staff should target the areas not caught by the road sweeper and other cleaning apparatus. Site management are responsible for ensuring that inspections take place and cleaning is undertaken in compliance with the schedule.	This measure will be used the entire time that the site is operational.
Ceasing operation during high winds and/or	Mobilisation of dust and particulates is likely to be greater during periods of strong winds	Likely to reduce dust and particulate emissions, however, not a long-term solution.	This measure will be used the entire time the site is operational.

prevailing wind direction	and hence ceasing operation at these times may reduce peak pollution events.		
Mechanical sweeper to remove any material spread by vehicle wheels.	A mechanical sweeper will be used to clear any visible deposits made by vehicle wheels from the concrete surface of the site roads.	Easy to implement as part of good practice.	This measure will be implemented in response to observations of accumulations of dust or mud on site roads. In the event that a sweeper cannot be deployed, site management shall consider the potential for dusts to be raised from vehicles travelling on site roads, the potential for dust/mud to be taken off-site onto the public highway or for dusts to be created by vehicles operating on site roads and in the event that any of these situations occur, shall suspend inputs to the site until mitigation measures and normal conditions can be restored.
Tarpaulin curtain	Tarpaulin curtain will remain across the front of the bay at all times.	Easy to implement as part of good practice.	This measure will be used the entire time that the site is operational.
The Mist-Air dust suppression system	The mist-air dust suppression system will operate at all times that the shredder and baler are in use.	Easy to implement as part of good practice.	This measure will be used at all times that the site is operational. The air-mister system will be activated automatically when the

			shredder and baler is in use.
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 particulates generated at ground level by vehicles and site activities.	Considered good overall based on dust and particulate reduction but potentially costly and disruptive to retrofit. There are maintenance and cleaning procedures in place for the concrete surfaces.	This measure will be used the entire time that the site is operational. Cleaning will be undertaken in accordance with the cleaning schedule.
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.	Likely minimal return on potentially costly layout changes. The amount of waste that can be managed on site without causing dust and particulate pollution should be identified in the management system.	This measure will be used the entire time that the site is operational.
Remedial Measures			
On site sweeping	Road sweeping vehicles dampen down dust and particulates whilst brushing and collecting dust and particulates	A mechanical sweeper will be used to clear visible accumulations of dust and mud. Manual sweeping and cleaning	This measure will be used when there is the visual build-up of dust during inspection and in

	from the road surface, particularly at the kerbside. Sweepers shall be hired in as required.	within the building is a daily activity carried out in accordance with a schedule.	compliance with the cleaning schedule.
Water suppression with onsite mobile mister.	Dampening down of site areas and the air using a mobile mister can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping. The mister will be present on site at all times, and will be filled with water from the IBC containers on site.	Effective at controlling the spread of dust emissions and particulates beyond the site boundary.	This measure will be used when observations by staff indicate that stockpiles are dry and weather conditions could give rise to windborne dusts, to ensure stockpiles and the concrete surface are dampened down. All external stockpiles will remain 1m below the height of the bay walls.

3.3 Other Considerations

Water usage / availability:

Mains water will be used to supply water to the Mist-Air dust suppression system within the processing building. This is a low water consumption dust suppression system to use to deliver a dry fog without creating excessive moisture.

There will also be continuous use of a mobile mister on site, which sources water from the IBC containers on site. This spreads a fine mist across all surfaces reducing the wastage of water via runoff. If this is insufficient in mitigating onsite dust, then the site will cease operations.

In the event of a drought:

As mentioned above, in event of a drought, the onsite mobile mister will be used to dampen stockpiles and site surfaces in order to reduce the spread of dust. In the event that the IBC containers cannot be refilled due to a drought, all site operations will cease.

Abnormal conditions and ceasing operations:

If the use of mains water or the use of water from the IBC storage containers is insufficient in mitigating onsite dust, then the site will cease operations until the dust is removed. Extreme winds have the potential to result in an issue with accumulations of dust and airborne dust. 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.

3.4 Enclosure of Waste Processing & Storage Areas

The site employs a comprehensive strategy of enclosure and containment to robustly manage dust and particulate emissions arising from waste processing and storage activities, in line with Best Available Techniques (BAT).

3.4.1 Waste Processing Building

The primary dust-generating operations, including the shredding and baling of all carpet waste, are exclusively undertaken within the fully enclosed processing building, located towards the west of the site. This building serves as a robust engineering control to prevent the fugitive release of process-related dust and particulates to the external environment.

The processing building is equipped with a dedicated air-mister system that serves all shredding and baling machinery. This system is designed to reduce the levels of airborne dust, preventing its accumulation and release within the building and to the external environment.

Bales produced for Solid Recovered Fuel (SRF) are stored within designated bays inside the processing building. This internal storage eliminates the risk of wind whipping and fugitive dust emissions associated with external storage of processed SRF.

3.4.2 External Storage Yard

The external yard is meticulously designed to manage the storage of unprocessed and sorted carpet waste, employing a combination of robust physical barriers and covering techniques to prevent dust liberation. Following tipping, whether in the western tipping area or southern unloading area depending on the delivery vehicle, incoming carpet waste is immediately sorted and directed into designated, concrete-walled bays within the external yard. These substantial walls act as primary physical barriers against wind entrainment and lateral dispersion of dust.

Two permanent covered areas, one structurally supported by 40 ft ISO containers and the other by a concrete walled bay, are specifically designated for the storage of unsorted carpet bales, reject (waste)

material, and finished product (other than SRF bales). In addition to the fixed roofs, all stockpiles within these covered areas are further protected by the application of durable, tear-resistant plastic sheeting, which provides a direct barrier against wind contact with the material surface, effectively eliminating wind whipping and rainfall contact. Photos demonstrating this effective covering are provided in Appendix E. Crucially, stockpiles within these covered areas will be consistently maintained at a minimum of 1 metre below the height of the covered area walls and the roof structure.

For unprocessed wastes stored in uncovered bays in the external yard, strict management protocols are in place to minimise dust generation. These wastes are stored in their largest possible form (unshredded carpet wastes), which inherently reduces their susceptibility for dust generation, compared to finely processed materials. All uncovered stockpiles in the external yard will consistently remain a minimum of 1 metre below the height of the bay walls at all times, ensuring that the bay walls provide a significant barrier against wind erosion and contain any potential dust within the bay footprint.

Furthermore, during dry and/or windy weather conditions, regular dampening of the exposed surfaces of these uncovered stockpiles will be undertaken using a mobile mister. This is a proactive measure to maintain an optimal moisture content on the stockpile surface and prevent dust entrainment. The duration of storage for unprocessed wastes in uncovered bays will also be minimised, with priority given to moving these materials into the processing building as quickly as practicable.

3.4.3 Storage Building (Eastern Boundary)

Bales produced for equestrian surfaces product are stored within the dedicated, fully enclosed storage building located along the eastern boundary of the site. This ensures that this final product is protected from the elements, preventing degradation and the potential for dust emissions. This product is processed to meet with End-of-Waste criteria.

By implementing these comprehensive enclosure and containment measures, the site significantly reduces the potential for fugitive dust and particulate emissions, thereby ensuring protection of human health and the wider environment. Regular inspections and maintenance of all enclosure infrastructure will be undertaken to ensure their ongoing effectiveness.

3.5 Visual Dust Monitoring

Activities that have the potential to cause dust emissions, as detailed in Section 3.2, will be monitored at the start-up of operations and again during the working day. This will include a visual assessment of any impacts downwind within the site boundary. Regular site inspections will also be undertaken by a COTC holder.

All observations and findings, including wind and other weather conditions, will be noted in the daily records.

Should visible dust be generated, the Site Manager will act promptly to identify the sources of dust and take the necessary corrective action. Each event, its cause and the action taken will be noted in the daily records. Formal reporting of dust incidents will be recorded in the site incident log, and any offsite notifications of dust shall be considered as complaints.

If necessary, to avoid potential nuisance, the Site Manager will instruct the reduction or suspension of any operation or process causing visible dust emissions across the site boundary towards any sensitive receptor until the emissions can be controlled.

All site personnel will be instructed to inform the Site Manager whenever visible dust emissions are observed, or appear likely to occur, as a result of any operation or process.

3.6 Out of Hours Prevention and Monitoring

Arrangements for the out of hours prevention of emissions include:

- In the event the accumulation of dust has been identified by site management during their end of day inspection, exposed external stockpiles will be dampened down before closure. The tarpaulin curtains to the covered storage areas will be closed.
- Covering any exposed external stockpiles with tarpaulin, if required, before closure each day.

The site does not have 24/7 security staff and therefore arrangements for the out of hours monitoring of emissions include:

- Site management will undertake perimeter inspections and the start and end of each day. In the event accumulations of dust are observed, they will be swept immediately.
- All exposed external stockpiles with the potential to be dusty will be dampened down before closure, or covered with tarpaulin, if required.
- Closing the tarpaulin curtains to the covered storage areas.

3.7 Dust Suppression

Site management will undertake a site inspection, including the site perimeter, dusty stockpiles, and vehicle movement areas, at the start and end of each day in order to identify any accumulations of dust. In the event that an accumulation of dust is identified during these inspections, they will be swept immediately. The key forms of dust suppression on site are sweeping, the mist-air dust suppression system to the processing building, the use of the mobile misters, rags for the wiping down of machinery, and sweeping around the processing plant.

Tipping and unloading of the carpet wastes takes place on the concrete surface, and these locations are near to concrete block and panel wall to stop dust leaving the site boundary to the nearby receptors.

There are several aspects of the site infrastructure that also contribute to dust suppression. All waste processing occurs within the processing building, which is equipped with a Mist-Air dust suppression system (as detailed in Section 1.4).

Carpet wastes stored on the yard will be unprocessed and stored in their largest form. The site has various concrete bays in the external yard for storage of sorted, unprocessed carpet wastes. The structure of the bay walls, where all wastes will remain 1m below the height of the bay walls, will act as a barrier reducing the risk of the spread of dust, and additionally protecting them from potential wind-whipping. This will reduce the risk of the spread of dust to nearby receptors.

Additionally, the site has mobile mister for washing wheels and dampening stockpiles.

At the end of each working day, any potentially dusty stockpiles will be damped down or will be covered with tarpaulin to reduce the risk of the spread of dust via wind-whipping out of hours.

As detailed within Appendix B, a daily cleaning schedule is strictly adhered to in line with the insurance recommendations which includes sweeping and vacuuming of the areas on a daily basis. The vacuuming procedure will ensure that the dust is captured and stored securely.

The location, type of dust suppression, and frequency of dust suppression is detailed within the cleaning schedule provided in Appendix B.

4. PARTICULATE MATTER MONITORING

Reference to the AQMA interactive map from DEFRA indicates that the site is not within an Air Quality Management Area.

Given the nature of the wastes accepted, the type of operation and the controls in place, it is not considered that PM10 monitoring is necessary. Should PM10 particulates be an issue at the site, a revised DEMP will be submitted including a detailed monitoring programme.

The management and monitoring of particulate matter will therefore be undertaken by visual assessment. An action plan will be implemented on the basis that:

i) there is an unacceptable visual emission of particulate matter from the site or

ii) a complaint is received in relation to emissions to air. An unacceptable visual emission of particulate matter from the site comprises a visual observation of dust or particulate matter crossing the site boundary. The initial observation will be made by the site personnel who has identified the emission and will be verified by the technically competent manager. If an unacceptable visual emission is observed by on-site personnel, the action plan will be implemented immediately. It is deemed that PM_{10} monitoring equipment is not required at this time. Should this situation change in the future then this plan would be updated, and a copy sent to the Environment Agency for their consideration and incorporation into the site's permit.

5. PREVENTATIVE HOUSEKEEPING MEASURES

There are various housekeeping measures in place on site which significantly reduce the risk of the accumulation and spread of dust across and off site including:

- Enclosing all waste processing within the processing building.
- Enclosing all external waste with the potential to produce dust within a concrete walled bay.
- External stockpiles will be dampened down, if required, to reduce the likelihood of dust generation.
- Ensuring any external stockpiles remain 0.5m below the height of the retaining wall.
- Washing and dampening down any dusty / dirty vehicles upon arrival and exit with the site hoses in accordance with the cleaning schedule in Appendix B.
- Yard surfaces will be swept manually once a week or whenever necessary.
- Hiring a mechanical sweeper weekly or within 24 hours after an incident to clean and remove dust, mud, litter and other debris on the nearby haul roads and Highway.
- Site management to undertake site inspections at the start and end of each working day, and before and after deliveries, including perimeter inspections, to ensure no accumulation of dust, debris, or litter. Any accumulations will be immediately swept.
- Undertaking a weather forecast check once every 24 hours in anticipation of potential windy weather.

6. ACTIONS WHEN AND INCIDENT OF DUST IS REPORTED

The following actions are taken:

1. The Site Manager assesses yard activities and the nature of waste handling and deliveries immediately prior to the incident being reported, to work out the cause.
2. If the source cannot be ascertained with 100% confidence, the Site Foreman on duty suspends the likely dust/particulate generating activities.
3. If the source is within the site's control, the Site Foreman on duty takes appropriate action in terms of dust/particulate abatement, to ensure that the alarm is not re-activated. This may take the form of the following;

a) Investigating the source of the dust/particulates to prevent a re-occurrence.
b) Suspending operations which are not being conducted using best-practice controls as set out in Table 3.1.
c) Additional use of the dust abatement measures.

d) Logging findings of a – c in the site diary, and also in the reporting template within the relevant appendix of the Environmental Permit.

If an effective abatement technique cannot be identified and implemented, and dust levels remain visible at the site boundary, then operations should be suspended. In addition, the site will commit to the suspension of operations on site if numerous complaints are received to allow for remedial measures to be implemented.

Site management will contact neighbouring businesses by email or telephone and local councillors (as representatives of residents) in the event that an incident of dust is reported which may result in complaints or a change in site practice to mitigate any issues raised.

In all cases, any new “lessons learnt” from the Site Manager’s investigations are considered by the company directors and implemented into dust & particulate emission management plan (if not already included), to prevent a re-occurrence of the incident.

7. REPORTING AND COMPLAINTS RESPONSE

In line with the Site Management Plan and the ISO9001 quality system, a complaints form will be completed for every complaint received about Equestrian Surfaces Limited. All complaints will be recorded in a complaint register, a copy of which is attached in Appendix A. These records will be stored on file for a period of 6 years. In the event of a dust complaint, the complaint will be investigated with immediate effect and the Environment Agency will be informed to assist within the investigation. The site will respond to a complaint within 2 working days. A record of all copies of correspondence and telephone file notes will be made in the complaints register.

7.1 Engagement with the Community

Community engagement is key to Equestrian Surfaces Limited's operations and local residents will be able to contact the site manager directly should they wish to discuss any concerns. The site manager or supervisor will visit any complainant to substantiate and discuss the issue. A record of any community engagement will be shared with the local EA officer.

To avoid the event of a compliant, site management will contact neighbouring businesses by email or telephone and local councillors (as representatives of residents) in the event that an incident of dust is reported which may result in complaints or a change in site practice to mitigate any issues raised.

7.2 Reporting Complaints

The site operates a complaints procedure as part of its ISO9001 quality system. All complaints will be recorded in a complaint register (see Appendix A), and reported to the Site Manager, who will investigate the circumstances and ensure that the necessary corrective measures are taken. A prompt response will be made to the complainant and a record, including copies of all correspondence and telephone file notes, will be made in the complaints register. Relevant authorities, e.g. Lancashire County Council will be advised in writing within one week of any dust complaint received, together with details of the findings of Equestrian Surfaces Limited management investigations as regards to the source of the dust and what corrective measures which have been taken.

In the event of any substantiated complaint, the effectiveness of the dust management plan will be reviewed.

If numerous complaints are received, particularly in regard to fugitive emissions, operations will cease until onsite conditions have been improved.

7.3 Management Responsibilities

Site management will alter Company Directors of any complaints in accordance with the equality system. Complaints registered will be discussed at monthly management meetings and any trends will be analysed. The monthly management meetings will instigate further remedial measures including reviews of the DEMP in response to any issues arising. Also, the site will commit to the suspension of operations on site if numerous complaints are received to allow for remedial measures to be implemented.

7.4 Complaints Response

In the event of a complaint, site management will respond to the complaint within 2 working days. The person/organisation that issued the complaint will be contacted within 2 working days of the site receiving the complaint to ensure that they are aware that the matter is being addressed and taken seriously.

In the event that a number of complaints are received, the complaints and trends will be discussed at management meetings. Consideration will be given to the causes of the complaint. A full review of all procedures and plans will be carried out to address any identified causes of the complaints.

If complaints are received from several sources, site management will carry out an off-site and on-site investigation to identify the nature, severity, and cause of the issue. If, in the opinion of site management, that no immediate practical action can be taken to mitigate the issue and the issue is sufficiently serious as to constitute pollution, then this would be escalated up to the Directors. The Directors would then take a view on whether operations should be suspended in order to deal with the immediate situation.

The site has been designed and will be operated to ensure that there would be no impact on neighbouring properties. However, should the neighbouring businesses, the regulator or local residents request regular liaison meetings, a liaison committee would be created, and any such committee would be free to decide the members and frequency of meetings.

8. SUMMARY

This DEMP has been produced on behalf Equestrian Surfaces Limited in order for the site to meet the requirements of and reassure the Environment Agency that the potential for dust produced from the site's operations is mitigated and controlled in every possible way. This DEMP accompanies a bespoke environmental permit application with the aim to obtain an environmental permit for the Equestrian Surfaces Limited site to operate as a household, commercial and industrial waste transfer station with treatment relating to the recycling of carpet waste into equestrian surfaces.

The DEMP aims to control any potential sources of dust to prevent dust emission impacts on the surrounding receptors, including several that are sensitive. All possible source-pathway-receptor routes have been identified, and suitable abatement measures have been assigned to each one to minimise the potential dust caused from onsite operations.

The DEMP will be reviewed annually to ensure it is up to date or following a dust incident by the ineffectiveness of the plan.

APPENDIX A – DUST 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	

APPENDIX B – CLEANING SCHEDULE

Area	Equestrian Surfaces Limited						
	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Site Surfaces							
Access Roads							
Mobile Plant							

APPENDIX C – VISUAL MONITORING CHECK SHEET

Name:	**Date:**	**Time:**
Weather	Wind strength / direction	
	Conditions e.g. dry, showers	

Location of visible accumulation of dust	**Time**	**Visible Dust**	**Dust Mitigation Action**
Access road surface			
Yard surface			
Internal surface of buildings			
Airborne			
Stockpiles			

APPENDIX D – RECORD OF ACTIONS

Name:	**Date:**	**Time:**
Location of visible accumulation of dust	**Dust control measure used**	✓ **or** ×
Access Road Surface	Mechanical sweepers	
	Mobile mister unit to dampen surface	
Yard Surface	Mechanical sweeper	
	Manual sweeper	
	Mobile mister unit to dampen surface	
Internal surface of buildings	Manual sweeper	
	Mobile mister unit to dampen surface	
Airborne	Mobile mister unit to dampen air	
	Mist-air system fixed to the ceiling above the shredder and baler within the processing building, activated to form a mist curtain to dampen air	
	Mist-air system fixed to the ceiling above the conveyors activated to form a mist curtain to dampen air	
	Extreme circumstances: cease operations	

	immediately	
Stockpiles	Mobile mister unit to dampen stockpiles	

APPENDIX E – PLASTIC SHEETED COVERED AREA

APPENDIX F – MIST-AIR DUST SUPPRESSION SYSTEM

t: +44 (0)1691 828 487 f: +44 (0)1691 828 487 e: info@mist-air.co.uk

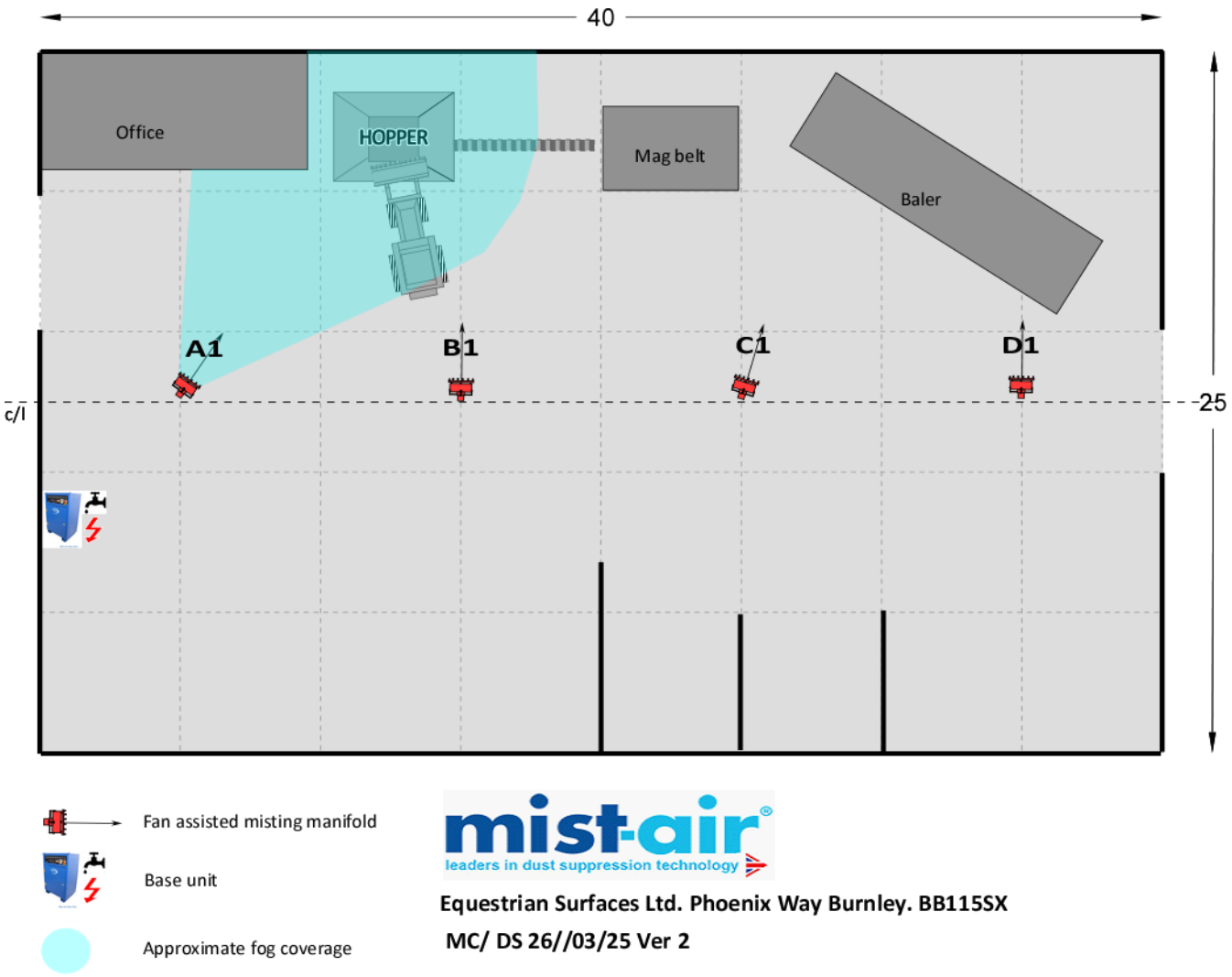
Equestrian Surfaces Ltd
Phoenix Works,
Phoenix Way,
Burnley
BB11 5SX
Attn: Mr James Harper
Tel: 01282 834 970
Mob: 07814 528 749
Email: james@equestriansurfaces.co.uk

26/03/25

Dear Mr Harper

Reference Dust Suppression System Ver 3

Further to our site meeting, please find a drawing of the proposed new layout as discussed.



The Misting System

The **mist-air®** Base Unit, is housed in a free-standing lockable steel cabinet which provides all the power for the system, this can be positioned anywhere convenient indoors or outside.
All wetted parts throughout the system are stainless or non-ferrous materials

Mist Air Base Unit

Dimensions 1200mm h x 900mm w x 600 mm d. Weight 120 kg
There are various models available to providing sufficient fog for any size of building or buildings simultaneously.
The Base Unit has 6 independent circuits, allowing each area to be treated separately or simultaneously. Each circuit could be on or off or operated by timers to operate intermittently at times set by the operator.

Methods of switching.

- Switches on the control panel (standard)

Reinforced circulation hose and SY armoured cable is then fed from the base unit to the various Fan Assisted manifolds.

There are 6 circuits available, but initially we will be using just 4 A.B,C,D.
If you require more fans for other areas at a later date the rental charge will be reviewed.

I believe you prefer to hire the system at £140 per week, which payable quarterly in advance.
The minimum hire period is 60 months.

Hire Per week £140 +vat

Customer to supply

Power

415v 3 phase and neutral 16 amps per phase to an isolator within 1 meter of the base unit.

Water

Clean Potable water to a 25mm poly-pipe and a ¼ turn inline poly-tap within 1 meter of the Base Unit.
3 bar pressure, 13 lpm flow.

We require no other wiring or water supplies, but additional expenses incurred by these above facilities not being provided on the agreed installation date are chargeable as it entails additional travelling time, hotels, etc.

Installation time. Approximately 2-4 days depending on Access.

Health & Safety.

Safety information, insurance cover, risk assessment, and method statements are provided, prior to installation. All staff are fully qualified to undertake their respective tasks.
We have a 35-year unblemished record of satisfaction and safety for all our products and services.

If you require any further information, please do not hesitate to contact me.

Kind regards

David

David Smith.
Sales Director UK & Ireland

APPENDIX G – TARPAULIN CURTAIN