Smurfit Westrock | Recovered Fiber

DUST MANAGEMENT PLAN

Birmingham depot

Contents

Introduction

This Dust Management Plan covers the location of land owned by Smurfit Westrock Recovered Fiber Birmingham.

This Dust Management Plan only considers the waste operations to be undertaken on site.

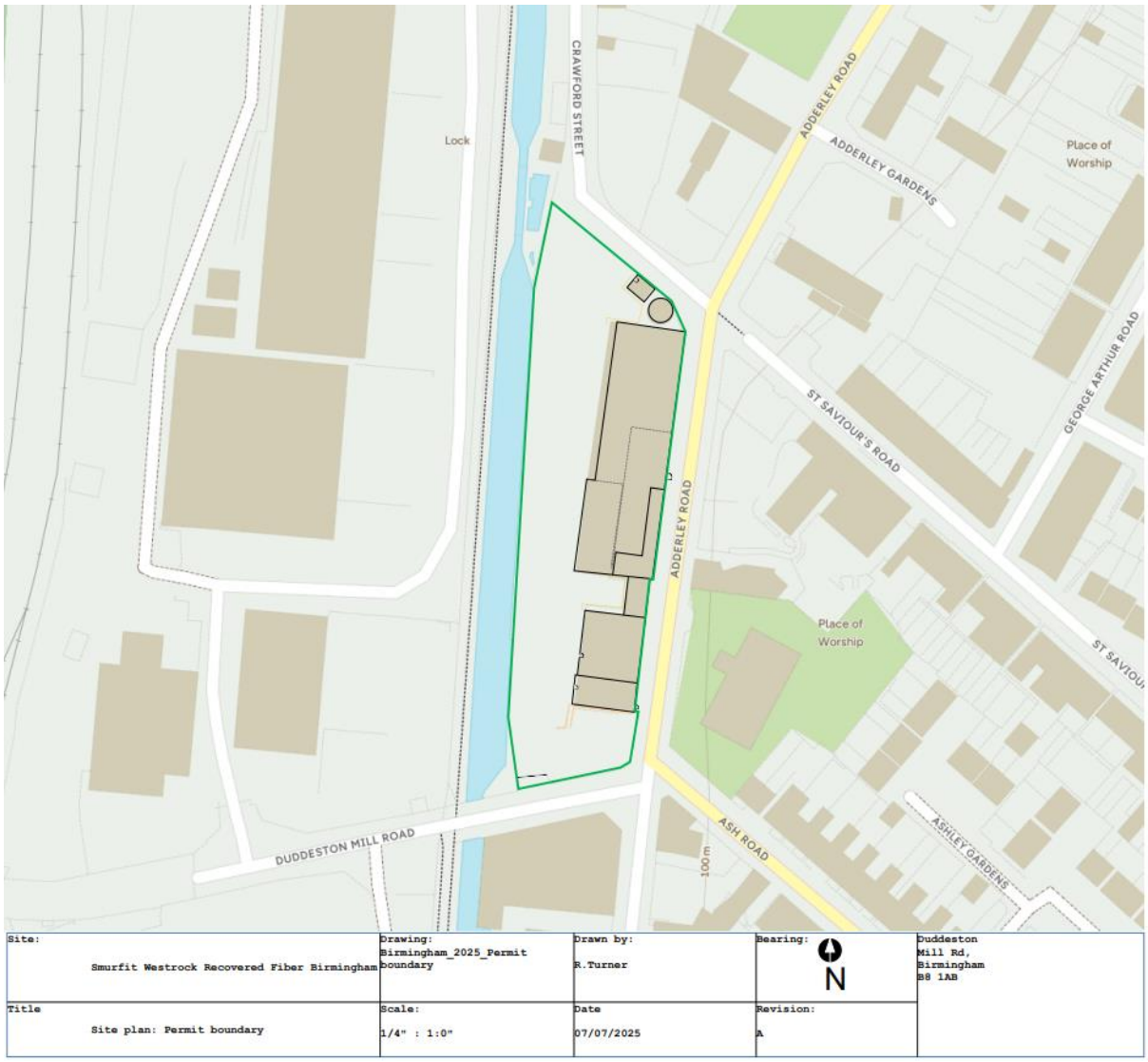
Many of the mitigation measures listed in this Dust Management Plan for Waste Operations are in use at the Site already to mitigate the impact of dust.

The site has been operating with exemptions (T4 S2) since 2005.

The Site is located 1.5 miles East to the city centre.

The boundary of the Permitted Site is shown in figure 1.5

Figure 1.5 Proposed New Permitted Boundary from Environmental Permit



This Dust Management Plan provides detailed information on the sources, risks and mitigation measures related to the potential of dust from the recycling of waste operations proposed to be undertaken at the Site.

The aim of the Dust Management Plan is to provide a document that is used to management and prevent where possible and reduce dust and other emissions such as debris on the road causing environmental risk and damage and nuisance as well a risk to human health.

This Dust Management Plan will form part of the integrated management System (IMS) for the Site. Procedures and forms referenced within this Dust Management Plan will be included within the EMS. Completed forms (records) will be kept, as required by conditions of any Environmental Permit to be obtained for the Site.

Relevant Legislation

The Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland fulfils the requirement under Part IV of the Environment Act 1995 for a national air quality strategy which sets out policies for improving ambient air quality and keeping these under review. The first strategy, the National Air Quality Strategy (NAQS), was published in March 1997. In January 1999, proposals to amend the strategy were put out for consultation and a consultation document was produced. Following consultation, a revised version of the strategy was published in January 2000. This was further revised in July 2007 and has not been revised since this date.

The AQS provides a framework for air quality control through air quality management and air quality standards and objectives for different pollutants (including particulate matter). These air quality standards and objectives were transposed into English Law by the Air Quality (Standards) Regulations 2010. The AQS was published on the gov.uk website in March 2011 under the 2010 to 2015 Conservative and Liberal Democrat coalition government.

Air Quality Management Area (AQMA)

The system of local air quality management (LAQM) was introduced under the Environment Act 1995. LAQM requires local authorities to periodically review and assess the current and future quality of air in their areas. Where it is determined that an air quality objective is not likely to be met within the relevant time period, the authority must designate an AQMA.

The Site is not located within an AQMA for PM10.

Low Emission Zone (LEZ)

A LEZ is an area that has restrictions on the type and age of vehicles permitted in it, therefore, vehicles emitting high levels of pollution can be prevented from entering and operating within the zone.

The Site is not located within a LEZ.

Site Location and Sensitive Receptors

Site Location

The site is located in Birmingham, Satley.

The Site is located 2,200km to the East of the city centre.

The boundary of the Site is shown on Permit Boundary Plan, Drawing No. 1.5 Permitted Boundary. A masonry perimeter wall/ building forms the site boundaries.

The activities are restricted to the one site.

The Site is accessed via dedicated access road via Duddeston mill road.

Land-uses surrounding the Site include light commercial, rail and housing.

The Site is not located within a Flood Plain and is situated 4m above the adjacent canal.

Sensitive Receptors

This Dust Management Plan identifies receptors within 1,000m of the Site that may be sensitive to dust emissions.

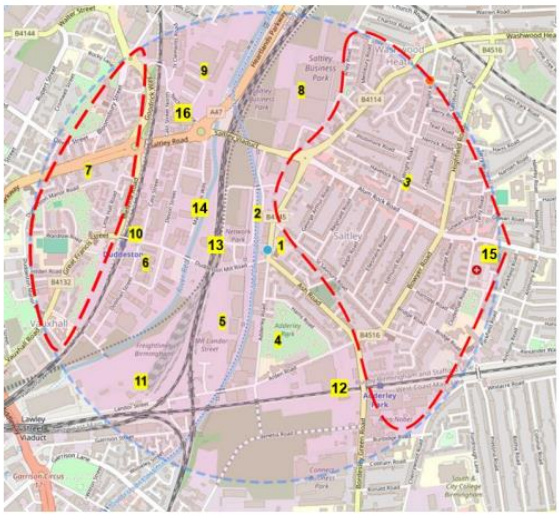
The distance from the Site boundary to the sensitive receptor plays an important role in the potential impact experienced from airborne dust. Concentrations of airborne dust reduce significantly, further away from the source.

Due to the nature of the waste being handled on this Site the particle size of the dust emitted is to small particles. Therefore, it can be concluded that these particles are highly unlikely to be deposited within 50m of the source. The area in which the recoverable material is processed is contained with a shelter housing the baling equipment.

The direction and distances from the boundary of the Site to the boundary of sensitive receptors are provided in Table 3.1 Sensitive Receptors. The references 1 - 16 are shown on the Sensitive Receptors Plan, Figure 3.1 Sensitive Receptors Plan.

Table 3.1 Sensitive Receptors

Sensitive Receptors



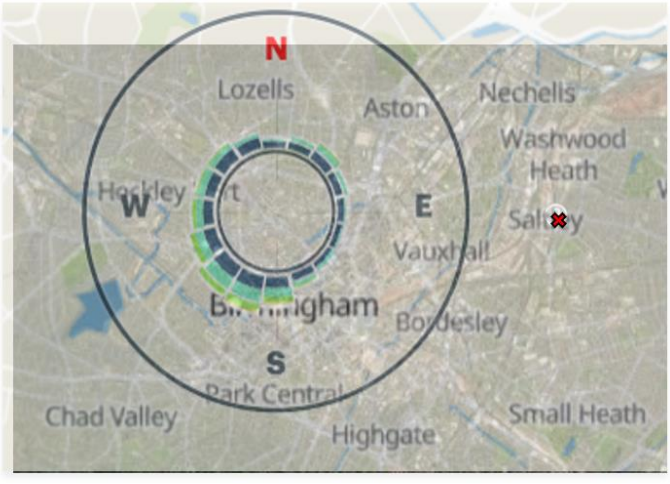
Ref	Receptor	Description	Direction from site boundary	Approximate distance from Site Boundary (m)
1	Mosque/ school	Community/ Religious centre	E	50
2	Grand union canal	Protected site/ area	W	50
3	Dwellings	Area East of site (highlighted)	E	100 - 1000
4	Playing fields	Communal park space	S	350
5	Business park	Duddeston mill trading estate	SW	300
6	Business park	Vauxhall trading estate	W	500
7	Dwellings	Area West of site (Highlighted)	W	650
8	Business park	Saltley business park	N	650
9	Paper Mill	Smurfit Westrock Paper Mill (SSK)	NW	700
10	Railway	Duddeston Railway station	W	500
11	Railway	Freightliner terminal station	SW	800
12	Railway	West coast main line	S	900
13	Railway	Rugby/ Birmingham main line	W	350
14	River Rea	Water source	W	400
15	Medical centre	Community medical centre	E	1000
16	Dual carriageway	Saltley Rd – Heartlands Parkway	NW	700

Meteorology

Unlike many other atmospheric pollutants, the generation of dust is particularly dependent upon weather conditions.

The predominant meteorological conditions at any site will be dependent upon many factors, including its location in relation to macroclimatic conditions as well as more site specific, microclimatic conditions. Clearly the most significant meteorological factor is the predominant wind direction and wind speeds, and consequently data has been collected regarding the predominant wind speeds and directions appropriate to

Prevailing wind direction



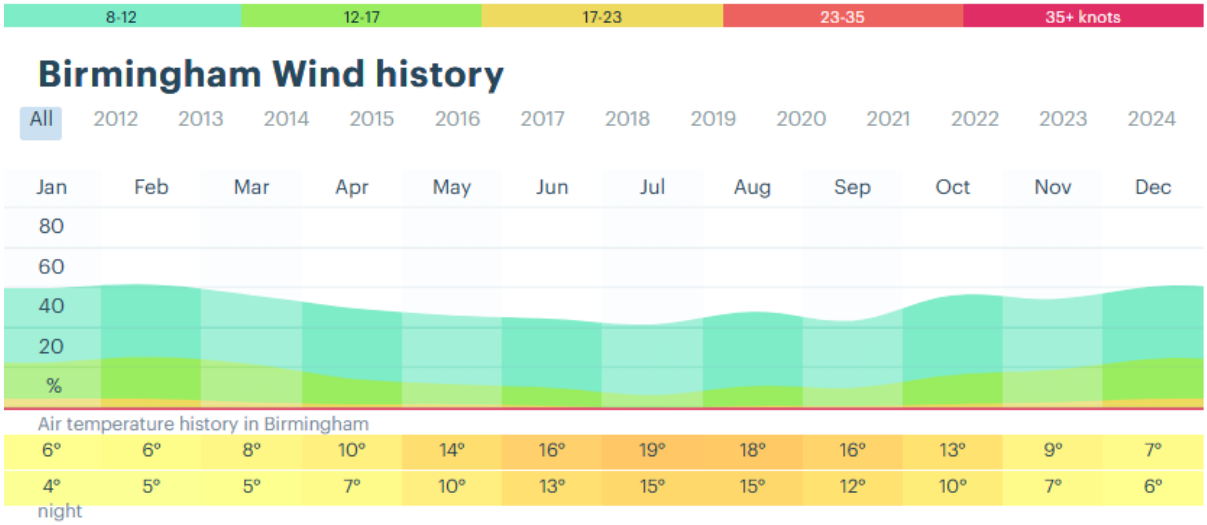
Wind data from 2012 – 2024 show wind direction predominantly West, Southwest.
Site location marked ✖

Wind data measured at 5. 79 away from selected destination, site is located 3.09km East of area shown.

[Birmingham wind and weather statistics — Windy.app]

Impact on receptors with prevailing wind

With the prevailing wind blowing from the North, northeast those receptors to the West, Southwest would be worse affected.These are namely two small business parks approximately 300m – 500m from the site boundary, Duddeston train station approximately 500m, Freightliner terminal station 800m from the site boundary with smoke inhalation being the main impact and smoke affecting visibility of the carriageway being the predominant impact from a fire. Dust, if



any emitted from the site will unlikely have any impact on these receptors.

The predominant wind blows from the South / Southeast towards receptors to the Northwest of the Site. Receptors to North / Northwest of the Site include commercial properties, waste management facilities and domestic dwellings (see Table 3.1: Sensitive Receptors).

The direct impacts would be domestic dwelling to the East, the Grand union canal adjacent to the site to the West and commercial properties to West, South of the property.

The closest receptors to the Northwest are over 100m away and are unlikely to effected by any dust emitted from the site activities.

Other Sources of Dust

There is the potential for dust to be emitted from local commercial properties and waste management facilities and from railway works being undertaken within the area that runs directly to the North and South of the site.

The site benefits from a windshield perimeter wall and as a result the site can monitor and control windborne materials from site, if any are produced.

Access to the site

The site is accessed from the Duddeston mill road via a public highway road.

All vehicles carrying pre accepted recoverable materials to the site will be sheeted until the vehicle is received on site and is at the unloading area on site.

In dry weather the yard activities will be monitored for any dust generation and if required, water will be used to suppressed any dust emitted from the activities, predominately mobile plant movements.

The site has an enforced a 7 mph speed limit for its entire length.

Operations at the Site

Accepted material Deliveries

All waste deliveries will be accompanied by a Waste Transfer Note (WTN) which is obtained from the load driver. The WTN will provide information on the driver, waste haulier name, permit number, description of waste etc. Loads not accompanied by a WTN or that do not match the description on the WTN will be rejected.

Accepted targeted materials (predominantly Paper and cardboard) will be brought onto the Site for the purpose of recycling. Waste acceptance procedures will be applied to ensure that only suitable material is accepted. Non target material consisting solely or mainly of dusts, powders or loose fibres will not be accepted on Site.

Recovered Fiber will be delivered onto the Site by Heavy Good Vehicles. The movement of vehicles visiting the site and moving around within the Site has the potential to cause dust emissions, particularly in dry and windy conditions.

All vehicles entering / exiting the Site will be sheeted to minimise the likelihood of dust emissions. Vehicles entering the Site will be visually inspected prior to unloading to ensure that excessively dusty loads are not accepted. The waste acceptance procedure implemented through the Site's EMS does not allow for the acceptance of dusts or powders. Therefore, overly dusty loads will be rejected from the Site in accordance with the Waste Rejection Procedure in the EMS.

Dusty loads are those that are primarily dry and made of light particles such as clay that when tipped have the potential to become wind born.

Mud could be tracked out of the site by vehicles potentially causing dust emissions from the road surface. The Site has vehicle washing facilities in place to help reduce the occurrence of significant dust emissions. Material is brought into the site through the entrance on the south boundary of the site from the sites main access road from Duddeston mill Road.

Overview of Waste Operations

The activities carried out at the Site will include the acceptance, storage and treatment of target material to produce recycled baled paper and cardboard.

Waste Handling

Waste Handling and Movement

Mobile plant movements can be considered to be dusty if the ground conditions are dry. Movement of accepted waste types and materials therefore has the potential to cause dust emissions.

Loading and off-loading of vehicles and equipment has the potential to cause dust emissions.

The materials accepted to site may emit dust when being processed via the baler conveyor feeds.

Waste Storage

Waste Storage

The Operator ensures that baled materials are stored below the perimeter walls of the site. The storage of bales is limited to 4.2m high.

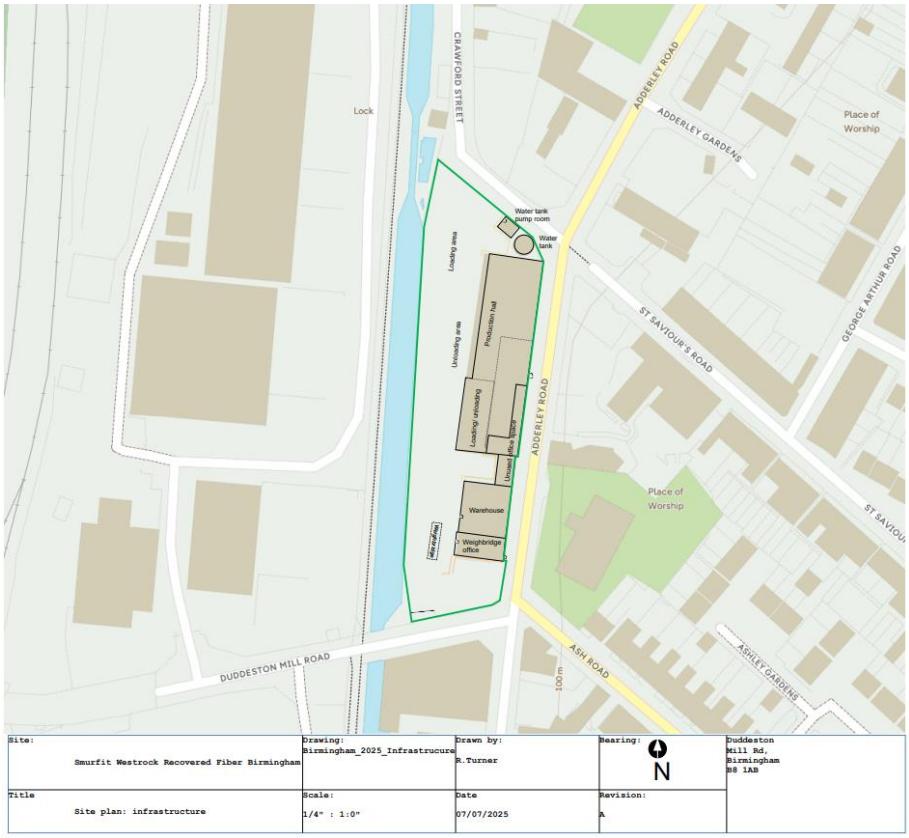
It is also a requirement that stockpiles are not cross contaminated and the Operator has procedures and site infrastructure in place to ensure that all material stored on site are clearly identifiable to ensure that materials are not cross contaminated.

The Operator will ensure that stock rotation is followed to ensure a first in first out procedure; The site will manage the feedstock and produced stock daily to ensure that the capacity is not exceeded through regularly contracted collections.

If in the future dust emissions are noted at the site boundary, the DEMP will be reviewed and additional measures will be put in place as required, which may include covers.

Site Layout

Figure 7.0 Proposed Site Layout



Mobile Plant

Plant and Equipment Storage

The company stores roughly 6 HGV RoRo vehicles on site as well as 6 mobile plant vehicles and baling equipment at locations around the sites. The areas used to store plant and equipment around the site are laid to hardstanding. This hardstanding can dry out in prolonged dry weather.

This means that the surfaces can produce dust from the movement of this equipment. In addition, wind can whip up dust from these surfaces.

Dust Management and Mitigation

Dust Management and Mitigation

Responsibility for Implementation of the Dust Management Plan. The Site Manager is responsible for the implementation of the Dust Management Plan for Waste Operations and for ensuring that the mitigation strategies are implemented at the Site.

Where the Site Manager is unavailable to oversee the implementation of dust suppression measures, a suitably experienced and trained Site Operative is allocated responsibility.

The Dust Management Plan for Waste Operations will be reviewed every two years or when a change in operations is deemed to have a potential effect on increasing dust emissions. The review process will amend any mitigation measures that have been identified as areas for improvement in reducing dust emissions on Site.

All staff members will have the necessary training to deliver dust suppression measures detailed within this Dust Management Plan. All staff are given training on the EMS for the Site, which includes a Dust Procedure, see Appendix 1 Dust Procedure. All staff on the Site are trained on the Dust Procedure which includes details regarding mitigation measure and monitoring/recording visual inspections. Where new dust suppression measures are to be implemented refresher training will be provided to ensure staff remain competent. This training is delivered by the Site Manager.

Decision to deploy dust control measures

checks are carried out by staff members in line with those in section 11 to decide if dust suppression measures are to be deployed such as the rainbird system or the use of road sweeper. However, in normal operations site surfaces are to be dampened down through the day when required and site surfaces are to be kept free from debris.

Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	How source and pathway can be interrupted by mitigation
Mud	Transportation of dust from mud on wheels and vehicles.	Public highways.	Mud on surrounding highways. Resuspension of mud as dust.	Vehicles delivering waste will be sheeted. Where mud is identified as an ongoing issue a road sweeper will be deployed. All areas will be subject to regular housekeeping in accordance with the procedures in the EMS. Due to all site surfaces around the wash plant and the access road being laid to concrete they can be cleansed easier, and a loading shovel bucket can be used to clear debris form the site.
Vehicle / Plant movements	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	A 7mph speed limit and a 'no-idling' policy will be implemented on site. The Site will be subject to regular housekeeping in accordance with the procedures in the EMS.

Tipping, loading and storage of wastes	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	Potential dust emissions will be reduced by minimising drop heights when moving dusty wastes. Waste may be stored in stockpiles which will be dampened down in periods of dry weather or when wind whipping is identified to be excessive. Dowsing the stockpiles causes a crust to form that reduces the amount of dust emitted from the site from wind-whipping of stockpiles. Operations will temporarily cease when winds are deemed to cause excessive movement of dust from wastes and materials. Wastes will be tipped next to baling equipment conveyor feeds for immediate processing. No loose materials are stored in any other area other on site.
Treating waste	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	Baling equipment is cleaned regularly and also will be in the range of the sites sprinkler system. This sprinkler system is capable of dampening down material being processed when required.
Operation of plant	Atmospheric dispersion	Surrounding sensitive receptors	Visual soiling and dust emissions	Operations will be temporarily ceased in periods of very high winds.

Figures and Drawings

Figure 1.5 Permitted boundary and location

Figure 3.1 Sensitive Receptors Plan Drawing

Figure 3.16 Wind rose

Figure 7.0 Site Layout Plan