

1-4 Peter James Business Park

DUST & EMISSION MANAGEMENT PLAN (DEMP)

VERSION NUMBER: 2025/TW/01

DATE: 23/01/25

Name – Dust & Emission Management Plan – 2025/TW/01 23/01/2025

Issue and Revision Record	Date	Originator	Checker	Description of Changes
Revision	23/01/2025	Tara Weaver	Peter Norman	Original

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Appendix A: Dust Complaint Form

1. Introduction

Towers Associates Ltd have been instructed by JS Gulati & Co and Rose Properties Ltd to prepare a Dust and Emissions management plan to release condition 7 on planning approval 41186/APP/2022/3491.

Which states:

A) No development shall commence until a Construction and Demolition Emission Reduction Plan has been submitted to, and approved in writing by, the LPA. This must demonstrate compliance (drawn up accordance with) the GLA Control of Dust and Emissions from Construction and Demolition SPG (or any successor document).

B) All Non-Road Mobile Machinery (NRMM) of net power of 37kW and up to and including 560kW used during the course of the demolition, site preparation and construction phases shall comply with the emission standards set out in chapter 7 of the GLA's supplementary planning guidance "Control of Dust and Emissions During Construction and Demolition" dated July 2014 (SPG), or subsequent guidance.

Unless it complies with the standards set out in the SPG, no NRMM shall be on site, at any time, whether in use or not, without the prior written consent of the local planning authority. The developer shall keep an up-to-date list of all NRMM used during the demolition, site preparation and construction phases of the development on the online register at <https://nrmm.london/>.

Under permission granted under application 41186/APP/2022/3491, an additional floor has been granted for units 1-4. Unit 1-3 is currently owned and occupied by Rose Properties who conduct contract maintenance including cleaning and gardening on sites.

No processes creating waste materials are conducted on site, the site is only used for day-to-day running of the company and storage of materials.

This site falls within the London Borough of Hillingdon and is located within an Air Quality Management area in regard to NO2.

Currently there are not any abatement controls on site, however the construction of the recently approved development is likely to generate some dust.

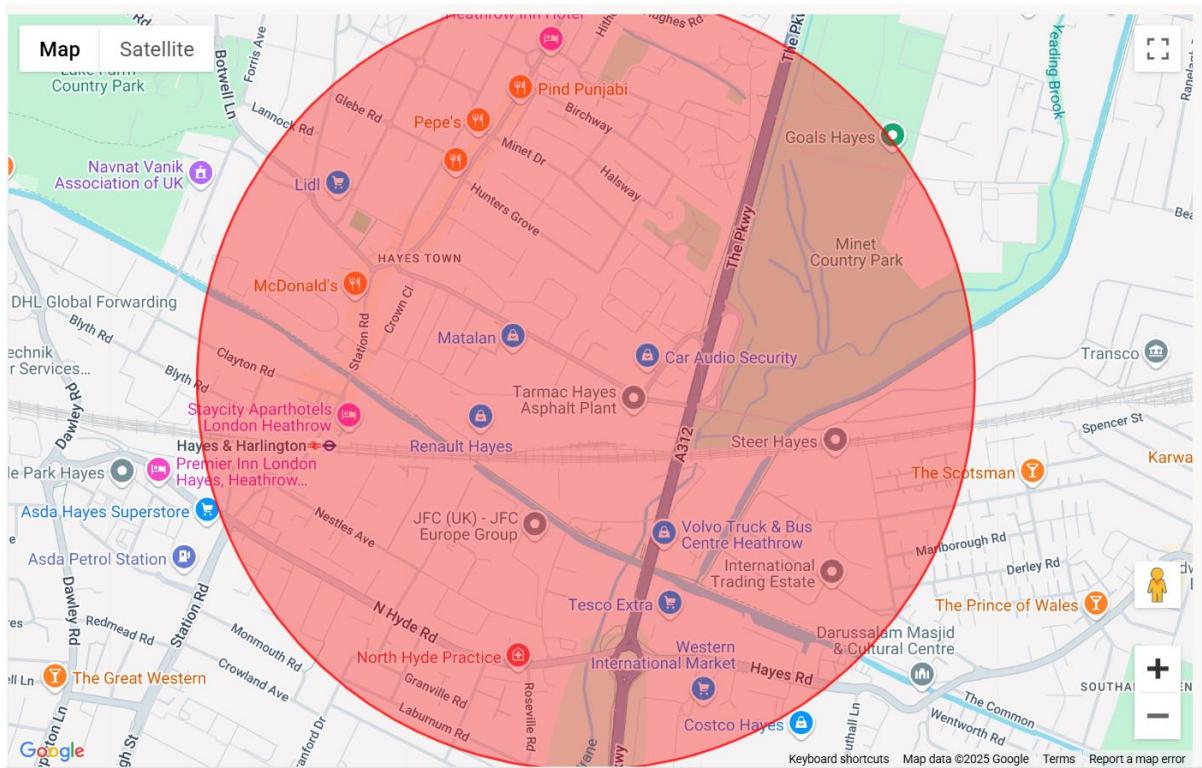
This document has been created to release the above-mentioned planning condition but has been put in place to minimise harm caused by dust and emissions on site where possible.

This DEMP is to be used alongside approved drawings, construction logistics plan and Low Emissions strategy.

This document has been written so that site staff can use and refer to it at all times.

1.1 Sensitive Receptors

There are several receptors close to the site which may be impacted by dust and emissions within a 1000m range of the site.



Map showing 1000meter radius from site.

Table 1.1

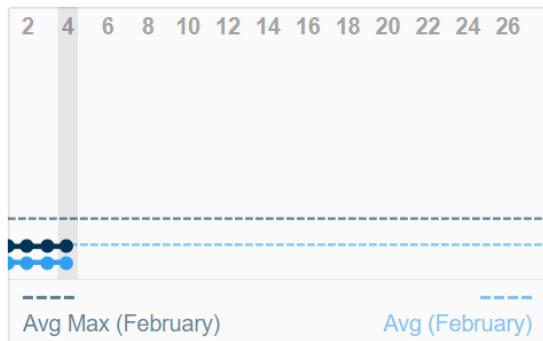
Receptor	Distance from Site (meters)
North Hyde Medical Practice	766.30
HESA Centre	598.88
Hayes Medical Centre	898.21
Botwell House Catholic Primary School	711.04
Minet Junior School	723.43
Minet Infant School	770.27
Avondale Children's Playground	769.56

The above table shows potential sensitive receptors, also worth considering is the residential estates around the site.

Hayes Town Wind Statistics

February Wind

Heathrow (4km)



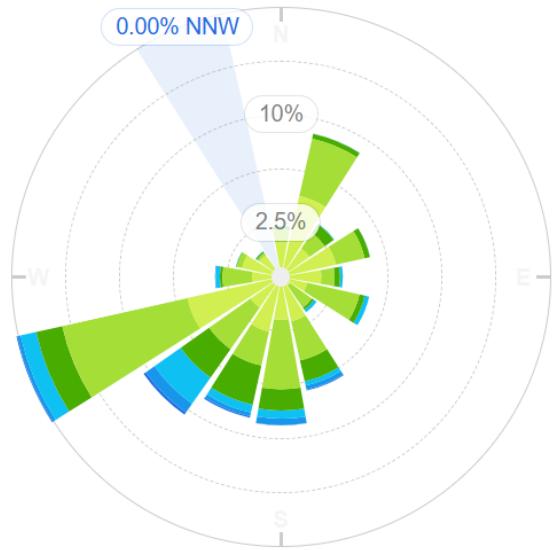
2025

January

February

Wind Rose

Annual (5 Year Average)



Wind Rose for Hayes

2. Operations at 1-4 Peter James

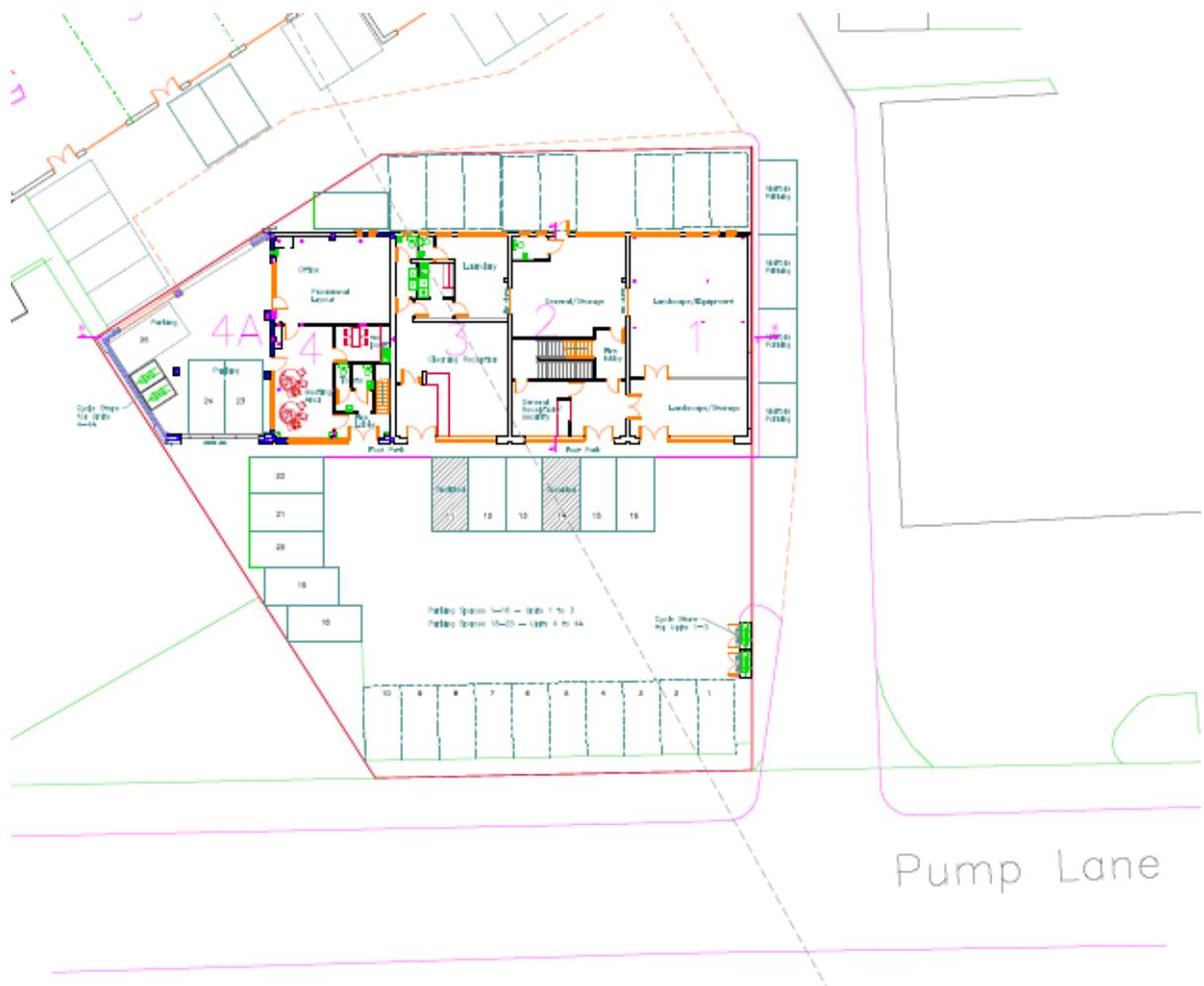
2.1 Deliveries to 1-4 Peter James

Due to the location of site deliveries via road are the only feasible option. Due to the site falling within the Ultra Low Emissions Zone it is expected delivery vehicles are to meet EURO 6 emission ratings (NOx and PM) where possible.

All material deliveries will be asked to be covered to reduce the spread of particulates.

The site manager is to keep records of deliveries to site, including but not exclusive to vehicle type and size.

2.2, Dust, and Other Emission Controls



Site Layout

The location of buildings are already as existing on site, this causes limitation to certain special mitigations that can be used. Despite this the construction plan shown has been designed to limit double handling of materials where possible and minimise disturbance.

The SOURCE-PATHWAY-RECEPTOR model has been carefully considered to minimise dust and particulate emissions.

The parking area of the site is currently concrete and thus is considered easy to clean and prevent dust and particulate generation in comparison to other surfaces.

2.3 Mobile Plant and Equipment.

Nitrogen Dioxide gas is a by-product of internal combustion engines, and the site will require the use of several items of plant with internal combustion engines. It is probable that these will be leased or hired for the duration of construction. All equipment will be the lowest emission standard available at the time of acquisition. If these are to be replaced for any reason it will be for an item of the same or better emission standard. All maintenance of these items will be in accordance with manufacturer's specifications.

From the 1st of January 2025, NRMM LEZ standards are to be EU stage IV as a minimum across London.

The lead contractor on site will be required to have an [account on the Governments NRMM website \(Non-Road Mobile Machinery \(NRMM\) | London City Hall\)](#) and:

- Create and review their NRMM register.
- ensure that all registered NRMM complies with the required standards.
- continue to log all NRMM between 37kW – 560kW.

As per the exemption and retrofit policy, if site operators cannot source compliant NRMM or if they are using an engine which has been retrofitted with an emission reduction system, they are required to apply for an exemption.

Full details of the exemption criteria and evidence required when applying for an exemption can be found in NRMM LEZ Exemptions and Retrofit Policy March 2024. Exemptions and Retrofit Procedures for the Non-Road Mobile Machinery (NRMM) Low Emission Zone (LEZ)

Where the equipment allows ultra-low/low sulphur fuel is to be used.

Controls will be in place to reduce emissions such as anti-idling protocols.

3. Dust and Particulate (PM10) Management

3.1 Responsibility for Implementation of the DEMP

The construction manager is responsible for the DEMP and making sure it is working and functional at all times. They are to instruct a ‘deputy’ who is responsible for the DEMP and any operations and queries in relation to this in their absence. Once these roles have been assigned, contact details for both responsible persons will be recorded and attached to the front of the DEMP.

The construction manager is to review the DEMP every three months or until an issue is identified. (Whichever is earlier.)

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

There are many activities relating to construction work that have the potential to produce dust and particulates.

Examples include:

- Vehicles entering and/or leaving the site with mud on wheels and tracking dust on to or off the site.
- Debris falling off lorries which arrive uncovered.
- Vehicles moving around the site kicking up dust.
- Stored Materials– consider wind-whipping on the surface of the waste.
- Loading waste materials back on to vehicles.
- Particulate emissions from the exhaust of vehicles/plant/machinery on site.
- Generators, plant, and other non-road going mobile machinery.

Table 3.1: Source-Pathway-Receptor Routes Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Please see table 1.1 above	Visual soiling, also consequent resuspension as airborne particulates	Remove mud before vehicles leave site.
Debris	falling off lorries	Please see table 1.1 above	Visual soiling, also consequent resuspension as airborne particulates	Cover lorries before leaving site.
Tipping, storage, and sorting of Materials in the open	Atmospheric dispersion	Please see table 1.1 above	Visual soiling and airborne particulates	Minimise source strength by means of low drop heights, profiling and shielding of piles from wind whipping, positioning sources away from receptors. Also wetting of certain materials (not plasterboard)
Vehicle exhaust emissions	Atmospheric dispersion	Please see table 1.1 above	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength
Non road going machinery exhaust emissions	Atmospheric dispersion	Please see table 1.1 above	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength

Table 3.2: Measures that will be used on site to control dust/particulates (PM10) and other emissions.

Abatement Measure	Description / Effect	Overall consideration and implementation	Trigger for implementation
Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance and downwind from receptors may reduce receptor exposure, provided that emissions from the source are not dispersed over significant distances.	May be worthwhile in combination with other measures to reduce dust and particulate generation. As site is existing we need to consider proposing temporary areas in inclement weather.	When weather scenarios are adverse, materials are to be stored in areas less likely to be wind-whipped.
, 'no idling' policy and minimisation of vehicle movements on site	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.	Easy to implement as part of good practice. As identified earlier in reported and implemented as appropriate measures.	To be used from commencement of work on site.
Minimising drop heights for Materials.	Minimising the height at which materials are handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Enclosing processes will further reduce dispersion.	Relatively easy to implement at many sites. These steps should be identified clearly in the site management system and implemented as appropriate measures.	To be used where possible from commencement of work on site.
Good housekeeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure site is regularly checked and issues remedied to prevent	Easy to implement and requires minimal equipment. Encourages a sense of pride and satisfaction amongst the staff which	This should be undertaken from commencement of construction activity on site. This should be undertaken more frequently if an issue is

	<p>and remove dust and particulate build up.</p>	<p>promotes vigilance and a positive culture.</p> <p>Staff should target the areas not caught by other cleaning apparatus.</p> <p>At the beginning and end of the working week, a site walk-around should be undertaken and remedied by lead contractor or deputy.</p>	<p>identified or work which may exacerbate dust or emissions on site is undertaken.</p>
Sheeting of vehicles	<p>Prevents the escape of debris, dust, and particulates from vehicles as they travel.</p>	<p>Relatively easy to implement at many sites. Undertaken as part of the site management system and implemented as appropriate measures.</p>	<p>To be used at all times</p>
Hosing of vehicles on exit	<p>May remove some dirt, dust, and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.</p>	<p>May be worthwhile where wheel wash installation is not feasible, or where the wheel wash does not achieve the desired outcome.</p>	<p>To be used instead of/in addition to wheel washing when required from site commencement.</p>
Ceasing operation during high winds and/or prevailing wind direction	<p>Mobilisation of dust and particulates is likely to be greater during periods of high winds and hence ceasing operation at these times may reduce peak pollution events.</p>	<p>Likely to reduce dust and particulate emissions, however, not a long-term solution.</p> <p>Procedures should be in place to identify when operations will cease.</p>	<p>When high wind speeds are predicted, Site manager to cease all dust producing works on site.</p>

Installed wheel wash	Provides a high-pressure wash of vehicle wheels and lower parts (including under body) using a series of jet sprays. More effective if vehicles drive through the wheel wash slowly in order that there is sufficient time for dirt to be removed.	Proven results where wheel wash is well designed, and vehicles drive through slowly on entry and exit.	To be used if hosing is found to be inefficient.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on-site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Considered good overall based on dust and particulate reduction, as there are existing concrete surfaces ensure they are maintained and cleaned.	To be used whenever feasible. Many surfaces on site are existing so the ability to change is limited but choosing impermeable surfaces for storage of materials to be preferable.
Minimisation of material storage heights and volumes on site	Minimising the height at which material 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.	Limited by existing layout on site. The amount of materials that can be managed on site without causing dust and particulate pollution should be identified and may have to be reduced if it is considered an appropriate measure.	To be used throughout the development from commencement where possible.

Reduction in operations (waste throughput, vehicle size, etc.)	Reducing the amount of activity on site of high risk loads during windy weather as well as associated traffic movements should result in reduced emissions and re-suspension of dust and particulates from a site.	Effective in terms of dust and particulate reduction but unlikely to be popular due to cost of delaying work on site. It may be the only option when other steps fail. Ensure the site has procedures to reduce activity on site if required through complaints or known issues, or adverse weather conditions.	To be used if complaints are made or adverse weather conditions occur.
Netting / micro netting around equipment	Remedial Measures Erecting netting around equipment that could give rise to substantial amounts of dust and particulates may be effective within the site boundary and prevent their dispersion off-site / their re-suspension within the site.	Reduces wind speed across the site which indirectly controls the potential for dust and particulate emissions. Effective for use as litter netting, but not for stopping dust from leaving the site boundary.	To be used if substantial amounts of dust particles are visualised around equipment or if preventative methods are not found to be effective.
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles..	Easy to apply but less effective than other measures.	To be used under 'general housekeeping' dampening of surfaces and then sweeping to be considered if substantial amounts of dust/ smaller particulates are visualised.
Site perimeter netting / micro netting	Erecting netting around the site perimeter may capture released debris and dust and particulates prior to it being dispersed off-site.	Reduces wind speed across the site which indirectly controls the potential for dust and particulate emissions. Can look untidy. Not very effective at reducing dust and emissions from leaving the site boundary.	To be used if preventative methods are deemed inadequate or complaints are made.

Water suppression with hoses & water jets

Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.

Quite water intensive.

To be used if preventative methods are deemed inadequate or complaints are made.

Dust and particulate monitor with trigger alarm

Installation of a dust and particulate monitor with specified alarm trigger level can alert site staff when short-term particulate concentrations are elevated in order that site practices can be reviewed or application of mitigation measures increased.

Worthwhile installing as a real-time tracker of dust and particulate concentrations. Helpful to monitor environmental performance and also to track the effectiveness of improvements made at the site. The operator should stop once the alarm sounds and if they believe they are the source then they should modify their operations and report to the EA. If the dust is not coming from their operations then they should note it down and continue with their operations. A limit of less than 75 ug/m³ (over a 5 min average) for PM10 should be considered by operators initially and reviewed down after the system has been in place for some time.

To be used from commencement on site.

3.3 Other considerations

Water usage/ availability:

In the event of a water shortage, the site is still required to abate fugitive emissions and not cause pollution, in this scenario all other possible abatements must be used, so as to not cause pollution so that the site remains able to operate at all times.

3.4 Visual Dust Monitoring

Routine dust monitoring is to take place regularly around the perimeter of the site. This is to be increased if particularly dusty activity such as crushing or chipping is taking place.

It is understood that despite visual monitoring small particles like PM10 and PM2.5 may be present and affect human health, but they are not visible by the naked eye.

Hence, why the presence of a dust and particulate monitor with trigger alarm has been recommended on site.

Results of visual monitoring and any alarm triggers must be recorded in a site log. If substantial amounts of dust are visualised or alarm is triggered. Work is to cease until cause is identified. If cause is not the site, the reason for the trigger is to be recorded and work can continue.

If the site is believed to be the cause, further abatement or remedial measures are to be put in place until reasonable levels have been met.

Particulate Matter Monitoring

The reliability of optical based particulate monitoring systems has increased dramatically, and the cost has reduced as a result of competition. Systems should operate to the Environment Agency's MCERTS standards.

It is important to understand that there are two forms of MCert standard.

There is the full MCert Standard that required instruments to perform to a relatively high level, it must have demonstrated considerable reliability, precision, and accuracy.

There is also an "Indicative" form of MCerts where a reduced requirement of precision and accuracy are needed. Instruments that are given this form of certificate have demonstrated that they have an acceptable level of reliability, and the data can usefully be used to gain an indicative understanding of dust concentrations.

In this situation where relative levels are more important than absolute levels an indicative analyser is believed to be adequate.

Analysers

We proposed the use of the Temtop PMD 351 Aerosol Monitor Handheld Particle Counter, PM1.0, PM2.5, PM4.0, PM10, TSP Monitor.

It is recommended that is collected on a 5-minute averaging period and that levels should be below **75µg/m3** for this period at the site boundary.

4.1 Monitoring Location

The wind direction is most commonly from the southwest to the northeast so a monitoring location to the northeast of the site is most likely going to collect the most useful and relevant data.

The construction manager is to choose a safe monitoring location on site. Advice may be sought from local environmental teams if the decision is not straight forward.

The inlet of the instrument should be at a height of 2m above ground and the wind speed and wind direction instruments should be located so they are not shielded by buildings and other obstructions.

4.2 Operation of the PM Monitoring Equipment

The site manager is responsible for the appropriate management *and* operation of the monitoring system.

4.3 Quality Assurance/Quality Control and Record Keeping

Records to be kept for Quality control purposes.

- i The make and model of the monitoring equipment
- ii The serial number of the monitoring equipment.
- iii When, how and by whom the data is checked.
- iv When the equipment is calibrated.
- v How the equipment is calibrated.
- vi Copies of the qualifications and training records of who carries out the calibration.
- vii When and by whom the equipment is routinely inspected.
- viii If the equipment is damaged and/or no longer able to collect reliable data.

4.4 Equipment and Data Management

The site manager is responsible for ensuring appropriate measures are in place for collection of data, filter and flow checks, and basic standard maintenance to keep the instrument in good order.

If they are unable to correct or solve a query, they are to contact the manufacturer for advice as soon as possible.

4.5 Reporting of Data

At this present moment in time, it is not deemed necessary to report data findings to the Local Authority / Environmental Agency. However, records will be held in the event these are requested.

When the level of 75 µg/m³ (as a 5-minute average) is exceeded repeatedly a detailed investigation is required in order to work out the source of the pollution, whether it be from dust/particulate sources on site (as listed in Table 3.1), sources of dust/particulates beyond the site boundary, background sources affecting the whole region, or more local sources.

5. Actions when alarm is triggered.

When monitoring system alarm is triggered.

The following actions are taken:

1. The Site Foreman assesses Construction activities and the nature of the material handling and deliveries immediately prior to the alarm being activated, to work out what has caused the alarm to be activated.
2. If the source cannot be ascertained with 100% confidence, the Site Foreman on duty suspends the **likely** dust/particulate generating activities.

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: Investigating the source of the dust/particulates to prevent a re-occurrence.

Suspending operations which are not being conducted using best-practice controls as set out in Table 3.1.

Additional use of the dust abatement measures.

Logging findings in the site diary.

If an effective abatement technique cannot be identified and implemented, and observed PM10 levels remain above the action level for 6 consecutive, 5-minute mean readings (i.e. 25 minutes) concurrent with recorded wind directions suggesting that the source of particulate could be from the site activities, then operations should be suspended until measured PM concentrations drop below the action level of 75 µg/m³ for 6 consecutive, 5-minute mean readings.

In all cases, any new "lessons learnt" from the Site Foreman's investigations are to be considered by and implemented into dust & particulate emission management plan (if not already included), to prevent a re-occurrence of the alarm.

The alarm is not the sole indicator of a dust event at the site; the continuous visual monitoring of potential dust sources and activities safeguard all play a very important part in managing dust and particulates.

6. Reporting and Complaints Response

Complaints received to site will be acknowledged within 48 hours.

Within two weeks an investigation is to take place, and a resolution communicated to the complainant.

All complaints to site will be recorded in the format of the Dust complaint form and kept within the site booklet.

6.1 Engagement with the Community

Details of the site manager will be made available to all surrounding businesses to update all those who wish to be notified and allow them to voice any concerns of complaints that may be

had during the construction. All complaints to site will be recorded in the format of the Dust complaint form and kept within the site booklet.

-Dust Complaint Form

Customer Name -

Address -

Postcode -

Customer Contact Details -

Tel -

Email -

Date -

Complaint Ref Number -

Complaint Details -

Investigation Details

Investigation conducted by -

Position -

Date & time investigation conducted -

Weather conditions -

Wind direction and speed -

Investigation findings -

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