# **Odour Emissions Management Plan**

Prepared on Behalf of: Keeble Container Services Ltd

Site Name:

**Paynes Lane** 

Nazeing

**Waltham Abbey** 

EN<sub>9</sub> 2EX

Environmental Permit Application Reference: EPR/LB3804LQ/A001

## **DOCUMENT CONTROL SHEET**

Site:	Paynes Lane
Project:	Bespoke Permit Variation Application
Title	Odour Emissions Management Plan
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#### 1. Introduction

#### 1.1 Reasons for an Odour Emissions Management Plan

- 1.1.1 This Odour Emissions Management Plan has been produced on behalf of the Keeble Container Services (the applicant), in line with current Environment Agency guidance, 'Risk Assessment for your Environmental Permit' available on Gov.uk, to support an application for a new bespoke environmental permit for a Waste operation under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).
- 1.1.2 The application seeks to authorise the acceptance, manual and mechanically assisted sorting and separation and the storage of wastes for recovery and disposal.
- 1.1.3 Reference has been made to the following documents:
  - Control and monitor emission of your environment Permit (February 2016) Environment Agency.
  - Environment Agency Technical Guidance Note H4-Odour Management.

#### 1.2 Objectives of this Odour Emissions Management Plan

- 1.2.1 This Odour Emissions Management Plan demonstrates appropriate measures to prevent or minimise the release of Odour emissions from the additional waste related operations for which the Bespoke Permit is being sought such that they do not cause pollution.
- 1.2.2 To achieve these objects, this Odour Emissions Management Plan includes a risk assessment and then identifies the following:
  - Controls in place to prevent the generation of Odour;
  - Measures in place to control Odour emissions should they arise;
  - Ongoing monitoring to assess effectiveness of these controls; and
  - Measures to monitor conditions onsite and the locality on a preventative basis.
- 1.2.3 All applicable staff members will be trained on the requirements of this Odour Emissions Management Plan by a Responsible Person by use of toolbox talks that will explain the requirements of the document & what is required of them in the event that an odour is identified with refresher training (i.e., a toolbox talk) completed as required to ensure sufficient understanding of the requirements and everyone will have ready access to this Management Plan.
- 1.2.4 The site is operational 7:30am-17:30pm.
- 1.2.5 This Odour Emissions Management Plan will be stored within the permitted area.

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## 2. Site Setting

#### 2.1 Application Site Context

2.1.1 The operation is located off Paynes Lane, which is an area benefitting from numerous Commercial & industrial activities as well as an existing recycling operation adjacent to the site, which would not be deemed sensitive in nature. The operation is within 90 metres of the Lea Valley Central Local Wildlife Site (LWS), which is to the north-west of the site, as well as being within 394 metres of a European Eel Migratory Route (Protected Species), which is to the northwest-west of the site. The nearest residential receptor is over 325 metres away, which is located at the bottom of Paynes Lane.

## 2.2 Designated Environmentally Sensitive Sites

2.2.1 There are no European Designated Sites such as Ramsar, Protection Areas, Biosphere Reserve, Special Areas of Conservations within 1000 metres of the site. However, the site is within 90 metres of the Lea Valley Central Local Wildlife Site (LWS), which is to the north-west of the site, as well as being within 394 metres of a European Eel Migratory Route (Protected Species), which is to the northwest-west of the site as evidenced in Figures 1/2. Furthermore, the site is not within an AQMA area for the management of PM10 Pollutants, but for NOx Pollutants, as evidenced in Figure 3.

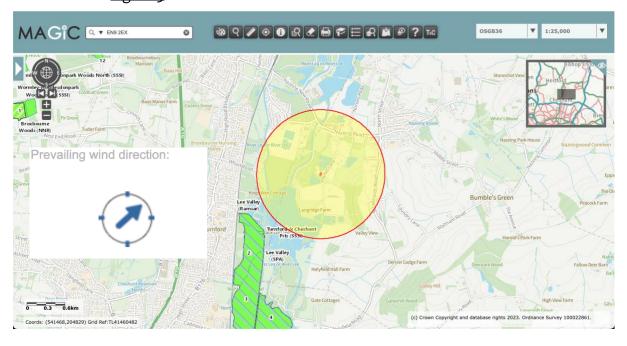
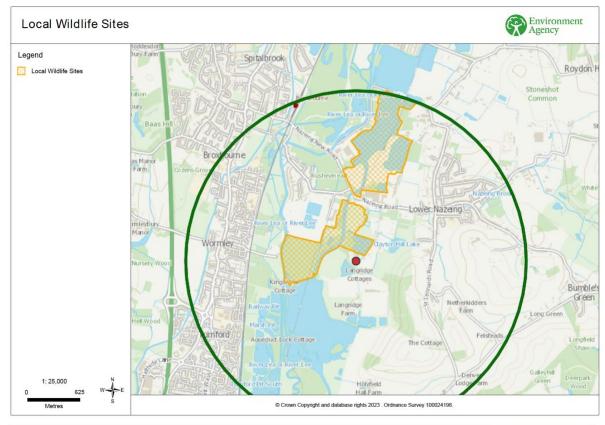


Figure 1: Map Showing Proposed Application Site.

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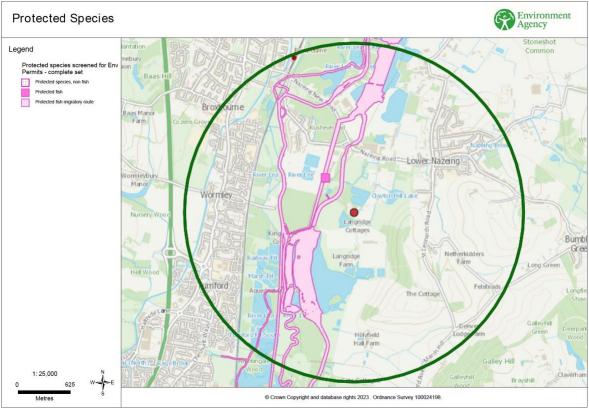


Figure 2: Showing Proposed Application Site in Relation to Identified Receptors (EA Screening)

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## 2.3 Air Quality Management Area

2.3.1 The site is located within an Air Quality Management Area for PM10 & NOx designated pollutants as evidence in <u>Figure 2</u> below.

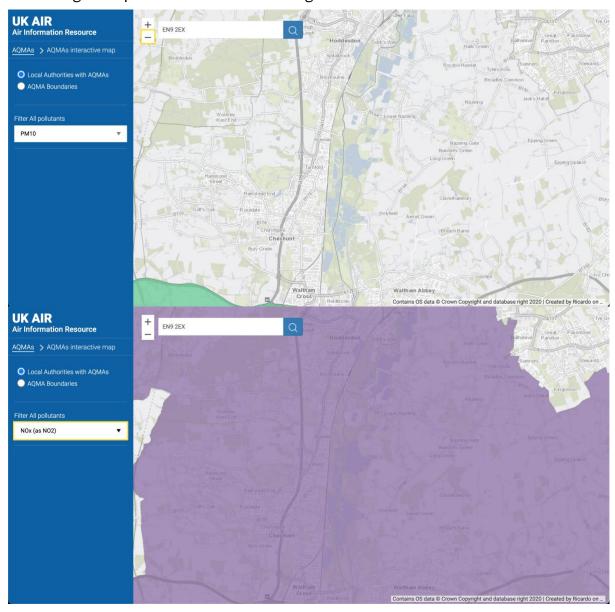


Figure 3: Application Site in Relation to Air Quality Management

#### 2.4 Wind Vector

- 2.4.1 The most important climatic parameters governing the generation and dispersal of fugitive dust are:
  - Wind speed which can potentially affect dust entrainment and the distance it may travel; and
  - Wind direction which determines the broad transport of emissions and the sector of the compass into which the emissions are dispersed.
- 2.4.2 Figure 3 below shows the overall wind patterns with the prevailing wind direction to the Northeast as illustrated below. Freemeteo sources its wind information from various weather models. The wind rose provides a long-term graphical view of how wind speed and directions are distributed at Nazeing. In determining the potential primary receptors (as detailed in <a href="Section2.3.3">Section2.3.3</a>) those within the North-East and adjacent have been included to fact in any fluctuations of the data that has been reviewed.

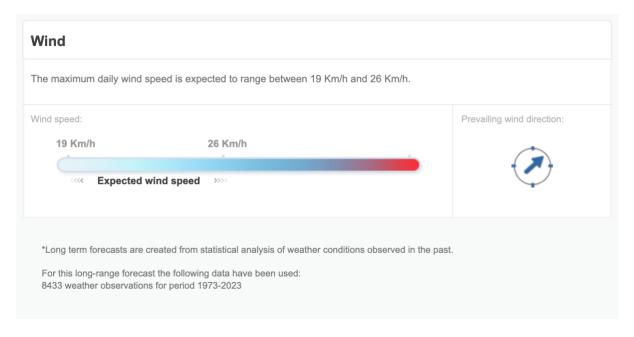


Figure 4: Nazeing (Overall Wind Data) Prevailing Wind Direction.

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## 2.5 Potential Local Receptors

- 2.5.1 A screening exercise has been undertaken to identify possible receptors in the vicinity of the site. A 1000-metre buffer zone has been applied, as this is stated criterion under the Environment Agency Bespoke Application Guidance.
- 2.5.2 Possible receptors are indicated in Figure 4 (overleaf) and listed in Table 1 below:

Table 1: Possible Receptors, Distance & Direction from Proposed Operation

Receptor Reference	Receptor Description	Direction From Site	Approximate Distance From Site Boundary (Metres)	
Α	Local Wildlife Sites (LWS) Lea Valley Central	North & West	90	
В	Recycling Operation	Northwest/West	Adjacent	
С	Commercial & Industrial Activities	Northeast	Adjacent	
D	Open Fields/Land	Southeast	795.9	
E	Clayton Hill Lake	Northeast	401.1	
F	River Lea (Protected Species European Eel & Migratory Route)	West	394	
G	River Lea (Protected Species European Eel & Migratory Route)	West	828.8	
Н	Kings Weir Cottage Residential	Southwest	893	
I	Holyfield Lake	Southwest	707	
J	Commercial & Industrial Activities	Northwest	558.6	
К	Residential	Northwest	902	
L	Nazeing Road (Infrastructure)	North/Northeast	726.5	
М	Commercial & Industrial Activities	North/Northeast	740.8	
N	Residential	North/Northeast	671.4	
0	Residential	North/Northeast	674.8	
Р	Commercial & Industrial Activities	Southeast	522.1	
Q	Commercial & Industrial Activities	East	135.1	
R	Paynes Lane (Infrastructure)	South	84.1	
S	Residential	East	857.6	
T	Residential	Northeast	968.7	
U	St Leonards Road (Infrastructure)	East	965.1	
V	Waterbody	Southwest	69.5	
Х	Waterbody	Northeast	930.4	
Υ	Commercial & Industrial Activities	Northeast	516.8	
Z	Commercial & Industrial Activities	Northeast	383.3	
AA	Residential	Southeast	971.6	
ВВ	Residential	South	325	
CC	Commercial & Industrial Activities	Northeast	464.1	
DD	Open Fields/Land	East	468.2	
EE	Open Fields/Land	West	672.2	
FF	Langdridge Farm	South	536.4	
GG	Open Fields/Land	Southwest	290	

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- 2.5.3 It is considered that the primary receptors listed below are most likely to be affected by potential dust emissions generated at the Site. The list reflects those receptors within the predominant wind direction (i.e., northeast), adjacent and within proximity (150 metres of the site):
  - Commercial/Industrial Recycling Operations (Adjacent Reference B)
  - Commercial/Industrial (Adjacent Reference C)
  - Commercial/Industrial
     (Distance 135.1 East Reference Q)
  - Local Wildlife Site (LWS) Lea Valley Central
     (Distance 90 North & West Metres Reference A)
  - Paynes Lane Infrastructure
     (Distance 84.1 Southeast Reference R)
  - Waterbody
     (Distance 69.5 Southwest Southeast Reference V)

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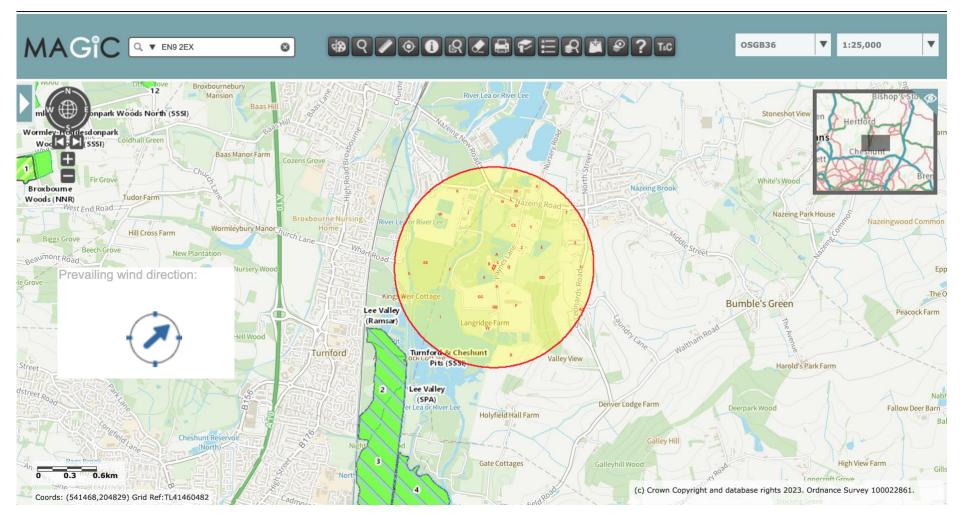


Figure 5: Possible Receptors Identified within 1000m of the Application Site (Magic)

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## 3. Odour Risk Assessment

- 3.1.1 The Environmental Management System & governing Environmental Permit Conditions will be monitored to ensure ongoing compliance with the Environment Permit. The Environmental Management System (including supporting Documentation) is underpinned by a Risk Assessment, which has identified the following operations as having the potential to give rise to Odour emissions:
  - 1. Delivery of Waste Material
  - 2. Deposit of Waste Material;
  - 3. Processing of Waste Material (Including the Production of Non-Waste Products);
  - 4. Storage of Materials
  - 5. Loading of Materials
- 3.1.2 Once onsite particulate matter mitigation measures have been enacted the magnitude of risk is reduced to low.

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## 3.2 Sources, Pathways, Receptors & Risk Management Measures

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Release of Particulate Matter (Odours)	Odour from Delivery of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in Table 1.	Low	Low	Medium	Vehicles are sheeted during the transportation of all waste materials to the proposed site.  Drivers follow strict pre-acceptance inspections to ensure no malodorous wastes are delivered to site. If the load is judged to be too malodorous the driver will contact the weighbridge office for further instruction on transporting the waste to another waste management facility (if deemed necessary).  In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document).  Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary).  Wind conditions will be monitored.	Low
Stra. Paynas t	Odour from Deposit of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities	Low	Low	Medium	Wastes are deposited in the Waste Acceptance area (depending on material composition & type), is constantly monitored during the unloading process.	Low

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			Workforce.  Receptors listed in <u>Table 1</u> .				Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour.  In the event that malodorous wastes are inadvertently accepted, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival.  In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document).  Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary).  Wind conditions will be monitored.  Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.	
Pr	Odour from Processing If Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed	Low	Low	Medium	Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.  Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour.	Low

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		in <u>Table 1</u> .				In the event that malodorous wastes are identified during the processing operations, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival.  In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document).  Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary).  Wind conditions will be monitored.	
Odour from Storage of Waste	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in Table 1.	Low	Low	Medium	Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.  Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour.  Storage time limits as specified in the submitted Fire Prevention Plan Document.  Ongoing monitoring and inspection of wastes stored within the Depot.  In the event that malodorous wastes are identified whilst being stored onsite, they will be isolated within an	Low

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						enclosed skip and removed from the site within 48 hours of arrival.  In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document).  Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary).  Wind conditions will be monitored.	
Odour from Loading of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce.  Receptors listed in Table 1.	Low	Low	Medium	Only competently trained operatives complete loading operations to ensure they are carried out efficiently and effectively.  Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour.  Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.  Vehicles are sheeted during the transportation of all waste materials to the proposed site.  In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document).	Low

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	Odour Suppression Equipment Hoses
	utilised to limit Odour emissions (as
	deemed necessary).
	Wind conditions will be monitored.

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## 4. Odour Management & Control

4.1.1 The site operates on the basis that prevention of Odour emissions in the first instance are more effective than implementing Odour emission response actions/procedures such as operation of the suppression equipment (powered misting hoses/misting system). It is primarily controlled by good waste acceptance procedures (i.e., to avoid odorous waste being deposited within the facility) and good operational practice through effective implementation and monitoring of this Odour Emissions Management Plan.

#### 4.2 Potentially Odorous Wastes

4.2.1 Based on the strict waste acceptance procedures implemented and the types of wastes accepted, processed, and stored at the site, the potential for odour emissions to be generated is considered very low. Potentially odour emissions could be generated via waste acceptance and through the degradation of wastes during storage, however it is not anticipated that wastes will be stored for sufficient periods with the correct conditions for degradation to commence.

**Table 2:** Potentially Odorous Wastes

Waste Description (Potentially Odorous Materials)	Applicable EWC Codes	Odour Risk Potential	Handling/Processing Arrangements	Maximum Quantity at Any Time (Tonnes)	Maximum Storage Time	Maximum Storage Time (In the Event of Odour Identification)
Mixed C&D & C&I/ Mixed Municipal Wastes (Waste Acceptance Area)	17 09 04 20 03 01	Medium/High	Deposited within the waste acceptance area, sorted (manual/mechanical) and processed through the processing equipment.	100	3 Months	24-48 Hours
Biodegradable Wastes (Food Wastes Potential to Generate Odours)	20 01 08 20 02 01	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	50	3 Months	24-48 Hours
Bulky Wastes	20 03 07	Low	Deposited, sorted, and shredded externally.	100	3 Months	24-48 Hours
Wood	15 01 03 17 02 01 19 12 07 20 01 38 20 02 01	Medium	Stored in the building or within external bays pending removal.	100	3 Months	24-48 Hours
Paper/Cardboard (If Soaked in Water)	15 01 01 19 12 01 20 01 01	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	100	3 Months	24-48 Hours
Plastic	15 01 02 17 02 03 19 12 04 20 01 39	Low	Deposited, sorted, and shredded externally.	100	3 Months	24-48 Hours
Plasterboard (If Soaked in Water)	17 08 02	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	100	3 Months	24-48 Hours
Glass (If Contaminated with Food Wastes)	15 01 07 17 02 02 17 02 04 19 12 05	Medium/High	Accepted, sorted (manual/mechanical), and stored within the building & external storage bays.	100	3 Months	24-48 Hours

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	20 01 02					
	15 01 07 17 01 01					
	17 01 02					
	17 01 03					
	17 01 07		Accepted, sorted			
Soil & Hardcore	17 02 02	Medium/Low	(manual/mechanical), and	500	3 Months	24-48 Hours
Joil & Hardcore	17 03 02	Medium/Low	stored within the building & external storage bays.			24-46 Hours
	17 05 04					
	17 05 08					
	19 12 09					
	20 01 02					
	20 02 02					
	15 01 04					
	17 04 05		Accepted, sorted			
Metals	17 04 07	Low	(manual/mechanical), and	100	3 Month	24-48 Hours
Mictals	19 12 02	LOW	stored within the building &	100	3 141011111	24-40 Hours
	19 12 03		external storage bays.			
	20 01 40					

Table 3: Odour Intensity Scale

Score	Intensity				
0	No Detectable Odour				
1	Very Faint Odour				
2	Faint Odour				
3	Distinct Odour				
4	Strong Odour				
5	Very Strong Odour				
6	Extremely Strong Odour				

#### 4.2.3 Hedonic Tone Scale

Table 4: Hedonic Tone Scale

Score	Intensity					
4	Very Pleasant					
3	Pleasant					
2	Moderately Pleasant					
1	Mildly Pleasant					
0	No Odour/Neutral					
-1	Mildly Unpleasant					
-2	Moderately Unpleasant					
-3	Unpleasant					
-4	Very Unpleasant					

#### 4.3 Waste Acceptance Arrangements

- 4.3.1 Wastes are delivered to the site during operational hours, which are delivered in skips & roll on roll off bins.
- 4.3.2 The site will implement strict waste acceptance procedures, which will ensure that no odorous wastes are delivered to the facility. Driver's will inspect every load prior to collection and will notify the Site Office in the event of potentially odorous load being identified. The Site Office will then confirm want the Driver should do and if the load is going to be completely rejected or if they wastes will be deposited at another waste management facility. The Site Office will liaise with the Driver and Customer regarding the agreed arrangements.
- 4.3.3 Business terms and conditions will be clearly stated before any skip/container is delivered to a customer's site and will be clearly stated to any third-party companies that deposit wastes within the proposed site.
- 4.3.4 All non-hazardous wastes (i.e., potentially odorous wastes) are deposited within the Waste Acceptance Area. If odorous wastes are identified within incoming wastes, it will be identified, isolated, and removed within 24-48 hours of isolation.
- 4.3.5 Third party deliveries are not accepted.
- 4.3.6 In the event of odorous emissions being identified the suppression equipment (locations as shown in <u>Appendix DEMPE</u>) will be activated to control emissions levels whilst the isolation of the wastes takes place and if required to control emissions pending the removal of the material.

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#### 4.3.7 **Processing**

- 4.3.8 It is not anticipated that the mechanical handling of wastes will result in odour emissions being generated from the operation.
- 4.3.9 In the event of odorous emissions being identified the suppression equipment (locations as shown in <u>Appendix DEMPE</u>) will be activated to control emissions levels whilst the isolation of the wastes takes place and if required to control emissions pending the removal of the material.
- 4.3.10 If necessary, operations giving rise to odour will cease until the material has been isolated and conditions improve (i.e., the intensity has reduced).

#### 4.4 Material Storage

- 4.4.1 Materials are removed in sheeted vehicles, ensuring a steady turnover, and avoiding the build-up of material.
- 4.4.2 First In First Out Procedure:
  - Operatives will deposit all 'new' incoming wastes at the front of any accumulation.
  - Operatives must load all collection vehicles with the oldest materials first
    (accumulations at rear of bay), therefore materials at the back of the bay will
    be loaded in the first instance (i.e., a first in first out policy);
  - Skips/Containers once full are removed from site, with no residual materials remaining once they have been removed, which will ensure no older materials are left onsite for a prolonged period.
  - Operatives will inspect designated bays/receptacles that have been emptied prior to commencing refilling (i.e., visual inspections).

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#### 4.5 Housekeeping Arrangements

- 4.5.1 Operatives adopt good housekeeping practices and will clean the operations areas daily via the handheld brooms and sweeping completed by mechanical equipment, which will ensure the surfaces are clean/tidy, with all waste materials located within their piles/locations.
- 4.5.2 Operatives conduct daily visual inspections of the public highway, the site access road and the sites internal surfaces and surfaces are cleaned as required (Public Highway immediately and internally as soon as possible, but by the end of the working day).
- 4.5.3 The concreted area is a completely sealed surface and has been laid to fall so all surface water run-off will be directed to the sealed catchment tank.

**Table 5:** Cleaning Arrangements

Cleaning Arrangements	Frequency	Responsibility	Supervision
Housekeeping (Sweeping)	Daily	Operatives	Yard Manager
Concrete Surfacing	Daily	Operatives	Yard Manager
Storage Bays/Receptacles	Monthly	Operatives	Yard Manager

## 5. Odour Suppression Equipment

5.1.1 The procedure for deploying the Odour suppression system is as follows:

#### **Proactive**

- 1. Check site conditions for Odour potential risk (hourly inspections by onsite operatives as a minimum);
- 2. When preparing to accept deliveries, moving, or loading materials ensure the suppression equipment is ready for deploy if required (i.e., identification of an offensive smell); and
- 3. Be prepared to suspend operations giving rise to excessive Odour, isolate and contain wastes within a skip & remove within 24-48 hours.

#### Reactive

- 1. In the event of Odour emissions being amber or red (as detailed within Table 2) enact the following procedures;
- 2. Deploy Odour suppression equipment, isolate and contain wastes within a enclosed skip;
- 3. Notify the Site Office that odorous material must be removed from the site within 24-48 hours;
- 4. Record the incident on a Odour Assessment Form in (Appendix OEMPB), the file for which is located within the site office; and
- 5. Report incident to the Management or Supervisor for further investigation.

**Table 6: Odour Management Action Levels** 

Action Level	Operation Conditions	Onsite Procedures
	Normal Operating	Ongoing monitoring by all site personnel for potential
	Conditions	odorous smells/emissions (Intensity >2).
		Hourly inspections undertaken by Operatives and on-
		going monitoring by Senior Management.
		Suppression Equipment ready for deployment.
	Odour emissions	Odour (i.e., subjective smell detective by onsite
	arising from within	personnel) Intensity >2 identified; suppression equipment
	the operation	deployed, contain odorous wastes within enclosed skip
		pending removal. Incident recorded within Odour
		Assessment Form <u>Appendix OEMPB</u> .
	Odour emissions	Odour (i.e., Intensity >2 identified) suppression
	escaping the site	equipment deployed, contain odorous wastes within
	boundary.	enclosed skip pending removal.
		Incident recorded within Odour Assessment Form
		Appendix OEMPB.

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## 6. Monitoring

#### 6.1 General

- 6.1.1 A thorough monitoring schedule will be implemented to assess the effectiveness of the controls put in place to prevent the escape of Odour emissions causing an adverse impact.
- 6.1.2 In addition, the following are also included in the monitoring schedule:
  - Process controls;
  - Odour releases;
  - Transport through the atmosphere; and
  - Impacts
- 6.1.3 Furthermore, the following are also included in the monitoring schedule:
  - Compliant response;
  - Site, pathway, and community monitoring undertaken by official bodies; and
  - Detailed record keeping and reporting.
- 6.1.4 Monitoring Point Descriptions are detailed below:

**Table 7: Odour Monitoring Points** 

Ref	Receptor Type	Address	Approximate Distance From Site Boundary
R1	Activity	Operational Area	N/A
R2	Adjacent Commercial/Industrial Activities	Industrial/Commercial Estate	Adjacent
R3	Infrastructure	Paynes Lane	48
R4	Infrastructure	Paynes Lane	49
R5	Infrastructure	Paynes Lane	179

- 6.1.5 Routine daily subjective Odour (factory) assessments are conducted at locations within the site boundary as shown in (<u>Appendix OEMPD</u>). The assessor will walk slowly along the site boundary and breathe normally. The assessor will stand still at the identified monitoring locations and inhale deeply facing upwind where possible.
- 6.1.6 Specific attention to the following points of detail shall be noted:
  - The assessor should not smoke or consume strongly flavoured food or drink for at least an hour before the assessment is carried out;
  - The consumption of confectionary or soft drinks should be avoided immediately before the during the assessment.
  - Perfumes/deodorants or any other strong scented toiletries should not be applied immediately before or during and assessment.

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- If the monitoring personnel has a cold or sore throat that inhibits the ability to detect odours, then alternative personnel will be utilised. If this is not possible then the assessor's condition should be noted in the assessment report and site diary.
- 6.1.7 The procedure for undertaking an Odour assessment is detailed in <u>Appendix</u> OEMPA.
- 6.1.8 If odour is detected in this manner, then sensitivity should be recorded as 2 (faint). If odour is detected while walking, the intensity should be recorded as at least 3. Criteria for assessing odours detected are detailed below.

#### Intensity

- No detectable odour
- Very faint odour
- Faint odour
- Distinct odour
- Strong odour
- Very strong odour
- Extremely strong odour

#### Extent (assuming odour detectable, if not then o)

- Local and impersitent (only detected during brief periods when wind drops or blows)
- Impersitent as above but detected away from site boundary
- Persistent but fairly localised
- Persistent and pervasive up to 50m from site boundary
- Persistent and widespread (odour detected >50m from site boundary)

#### Sensitivity (assuming odour detectable, if not then o)

- Remote (no housing, commercial/industrial premises, or public area within 500m)
- Low sensitivity (no housing etc. within 100m of area affected by odour)
- Moderate sensitivity (housing etc. within 100m of area affected by odour)
- High sensitivity (housing etc. within area affected by odour)
- Extra sensitive (complaints arising from residents within area affected by odour)
- 6.1.9 In the event of Odour emissions being identified beyond the permitted boundary during the operational day, a Responsible Person will go to each of the identified monitoring locations identified within <u>Appendix OEMPD</u>.
- 6.1.10 On reporting results, additional observations as detailed in the odour assessment form (Appendix OEMPB) are recorded. Abnormal site operating conditions at the time of the survey e.g., maintenance to process equipment will also be recorded. The classification system for odour parameters is detailed below and attached to the Odour Assessment Report (see (Appendix OEMPA).
- 6.1.11 If an Odour assessment indicates that Odour present has arisen from the site recently, an assessment of the site processes will be carried out to trace the source

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- of the identified Odour so that appropriate corrective action can be taken. This will include deployment of the Odour suppression system if odour is still present.
- 6.1.12 This feedback loop will ensure that corrective and preventative measures are in place if such conditions arise in the future.
- 6.1.13 In the event of on-site emissions sources being identified, or as a result of any assessments made by the Environment Agency and/or Local Authority Environmental Health Officers, the site management will be informed, and the appropriate corrective and preventative measures taken.

## 7. Complaints

- 7.1.1 The intention will be to ensure all complaints are responded to with 24-48 hours of being received, depending on when the complaint is received. A Complaint Log Form (Appendix OEMPC) will be completed as soon as the complaint is received and actioned as required.
- 7.1.2 The Operator will engage with the wider community as often as possible in order to alleviate against negative site perception. The Company Directors will sure that the publicly accessible website is maintained and contains all the necessary contact information is provided so members of the public can contact the site. Furthermore, a noticeboard will be erected outside of the site that will provide contact information to anyone that requires it, which will include an emergency contact for out of hours concerns/issues.
- 7.1.3 In order that the veracity of any Odour complaints can be substantiated it is imperative that the site is immediately informed either by the complainant themselves or by the Environment Agency or Local Authority. The site telephone number is clearly displayed at the site entrance and residents are encouraged to immediately contact the site and/or Environment Agency in the event of any off-site Odour that might be attributable to site operations being detected.
  - On receipt of an Odour complaint, a Responsible Person will visit the location of reported event to determine Odour presence/absence, Odour characteristics and intensity. The time of the complaint will be correlated with on-site activities the site diary will be checked for 'abnormal' site operations/conditions at the time of the complaint.
- 7.1.4 The details will be recorded on the Complaint Log Form (Appendix OEMPC).
- 7.1.5 The duration of the Odour release to which a substantiated complaint relates will be recorded in the Site Diary and Complaint Log Form (Appendix OEMPC).
- 7.1.6 Site management will be advised, and details of the Odour complaint recorded on the Log Forms (Appendix OEMPC) in addition to complaint validation results and any corrective and preventative actions taken in response to the complaint.
- 7.1.7 In the event of an odour compliant or odour being identified beyond the site boundary the Environment Agency will be notified (i.e., the local officer will be contacted via email in the first instance).

# 8. Contingency Plans

**Table 8:** Contingency Measures

Eventuality	Procedures/Measures
Contingency	Measures could include: -
Planning in the	The site will cease all operations and will not accept any further waste material (contact appropriate)
event of a fire	customers/contractors if necessary) until FRS arrives.
event of a fire	2. Employees will be advised of the situation.
	3. Enact fire procedures as detailed within FPP.
	4. The site will only reopen once FRS has advised it is safe to do so.
	5. Fire damaged waste will be processed as appropriate. If this is not possible then it will be stored in the isolation
	facility and then removed from site.
Flooding	Measures could include: -
riodding	The affected area will be isolated
	2. The site will cease all operations and will not accept any further waste material (contact appropriate
	customers/contractors if necessary)
	3. Employees will be advised of the situation.
	4. Contact wastewater Management Company to remove water accumulated on the impermeable site surfacing.
Absences	Measures could include: -
Absences	Hiring in temporary workers to ensure sufficient staff coverage of operations onsite
	Temporality require Drivers to complete onsite tasks/jobs as well as completing day-to-day
	collections/deliveries
	3. Suspend or delay collection of containers/skips to enable staff to be distributed to essential area and prevent
	the build-up of wastes if sufficient staff members aren't present
Accident	Measures may include: -
Accident	1. The affected area will be isolated and an appointed 'first aider' will be contacted to attend to any injured party.
	2. If necessary, the emergency services will be contacted.
	3. A Responsible Person will decide on a case-by-case basis if cessation of operations around the affected area
	and reception of waste is necessary until the appropriate emergency services have arrived.
Seasonality	4. A Responsible Person will complete an Accident Investigation Report.  Measures could include: -
(Including	Confirm current storage times for materials accumulated onsite.
Transportation	2. Contact outlets for the specified stream and arrange transportation.  2. Contact outlets for the specified stream and arrange transportation.
Shortages)	3. Transport all waste accumulated within a designated container/skip/area/bay, even if it may be economically
Siloi tages)	undesirable to do so, i.e., the container for transportation is not full.
	4. In the event of no outlet being viable a last resort would be to transport the specified material to a landfill site
	via a third-party haulier to ensure that the storage limit maxima are not exceeded.
	5. Stop accepting waste until the situation improves.
Supply Chain	Measures could include: -
Failure	Confirm current storage times for materials accumulated onsite.
(Including	Increase monitoring of material stockpiles onsite.
Transportation	3. Contact outlets for the specified stream and arrange transportation.
Shortages)	4. If the outlet is not receiving the specified waste stream, contact other outlets.
3	5. Conduct investigations into potential alternative outlets if potential outlets are not accepting specified
	streams.
	6. Require cessation of deliveries until further notice and potential transportation to alternative sites.
	7. Seek advice from EA.
Breakdowns	Measures could include: -
(Mechanical	Immediate isolation of the affected machinery.
Equipment)	External contractors notified to complete repairs
=======================================	3. Hire in relief equipment in interim if needed.
	4. Reschedule material despatch to align with scheduled repairs and or relief machinery availability.
	5. Suspend or delay collection of containers/skips to enable equipment to be up and running
Queuing Trucks &	Measures could include: -
Lorries	Banksman/Senior Management to take immediate control of the situation to manage traffic arrangements;
	2. Site Office could delay the arrival of incoming vehicles by requesting Drivers take breaks earlier than scheduled
	to reduce the amount of incoming traffic to the site.
	3. Customers (third party) could be asked to return later once the traffic has been reduced.
	4. Vehicles could be directed to park within the wider site (external yard) and directed as required.
L	1

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## 9. Odour Emissions Management Plan Review

- 9.1.1 This plan will be reviewed on a regular (annual or as frequently as required) basis as part of the operation of the Site Environmental Management System. This will include:
  - Review of any complaints received, and remedial action taken.
  - Review of reported incidents of Odour release to establish effectiveness of mitigation measures.
  - Recommendation on additional measures to be implemented as appropriate.

## **Appendix OEMPA: Odour Assessment Procedure**

Routine assessments can be used to build up a picture of the impact odour that might emanate from the site could have on the surrounding environment over time. You can develop 'worst case' scenarios by doing assessments during adverse weather conditions or during particularly odorous cycles of an operation. Ideally, you should use the same methodology to follow up complaints.

#### Please note:

- Staff normally exposed to the odours may not be able to detect or reasonably judge the intensity of odours off-site. You might be better off using office staff or people who have not recently been working on the site to do this.
- Anyone who has a cold, sinusitis, or a sore throat, is likely to underestimate the odours.
- To improve (or to check) data quality, you can get two people to do the test independently at the same time.
- Those doing the assessment should avoid smoking, strong food, or drinks, including coffee, for at least half an hour beforehand. They should also avoid strongly scented toiletries and deodorisers in the vehicle used during the assessment.

#### Where you test will depend on:

- whether you are responding to a complaint;
- whether you are checking your state of compliance at sensitive receptors;
- whether you are trying to establish the source of an odour;
- wind direction.

The assessment will involve someone walking along a route around the site perimeter checking at the identified monitoring points (<u>Appendix OMP D</u>).

Also keep a note of any activities beyond the site boundary that could be the source of the odour, contribute to the odour, or be a confounding factor.

# **Appendix OEMPB: Odour Assessment Form**

			(	Odour Assessn	nent Form					
Start Time Of Check		AM		PM	Finish Time			AM		PM
Duration (Of Check)		1								
Location Of Check If Not On Site										
Weather Conditions	Dry		Rain		Fog		Snow		Other	
Temperature	Hot		Very Warm		Warm		Mild		Cold	
Wind Strength	None		Light		Steady		Gusting		Strong	
Wind Direction From	North		NE		E		SE			
	S		SW		W		NW			
Intensity	o No Odour	1 Very Faint	2 Faint	3 Distinct	4 Strong	5 Very	6 Extremely			
	present	Odour	Odour	Odour	Odour	Strong Odour	Strong odour			
Odour Detection	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7			
Intensity (Using Above Scale)										
How Far Was It Travelling		1		1		1		"		
Is The Source Evident?										
If Yes-Name It										
Any Other Comments Or Observations										

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# **Appendix OEMPC:** Odour Complaint Form

ODOUR COMPLAINT REPORT FORM						
Time and date of complaint:	Name and address of complainant:					
Telephone number	of complainant:					
Date of odour:						
Time of odour:						
Location of odour, i	f not at above address:					
	(i.e., dry, rain, fog, snow):					
	warm, warm, mild, cold or degrees if know	/n):				
Wind strength (non	e, light, steady, strong, gusting):					
Wind direction (eg	from NE):					
Complainant's desc	ription of odour: s it smell like?					
o Intensity	(see below):					
o Duration						
	or intermittent in this period:					
o Does the odour?	complainant have any other comments ab	out the				
Are there any other complaints relating to the installation, or to that location? (either previously or relating to the same exposure):						
Any other relevant information:						
Do you accept that	odour likely to be from your activities?					
What was happening on site at the time the odour occurred?						
Operating conditions at time the odour occurred (eg flow rate, pressure at inlet and pressure at outlet):						
Actions taken:						
Form completed by	:	Date	Signed			

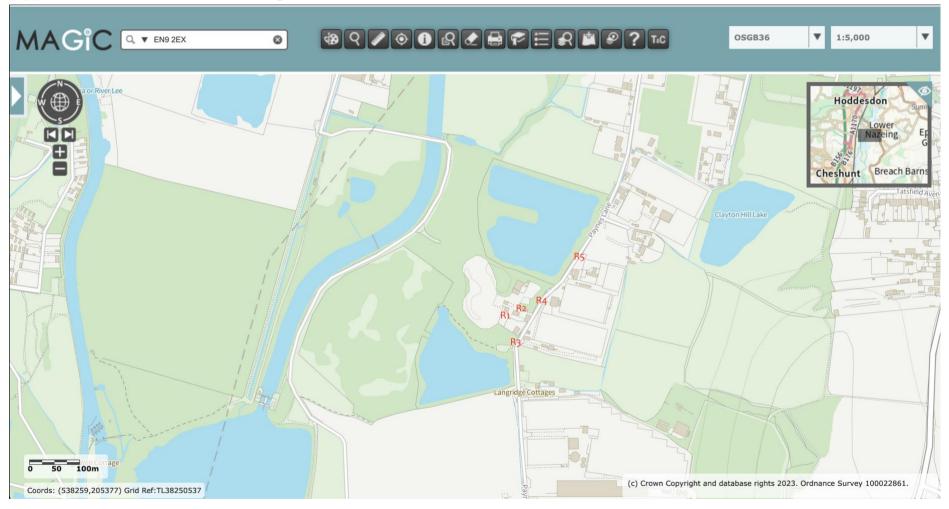
- 0 No odour 1 Very faint odour 2 Faint odour
- 3 Distinct odour 4 Strong odour

5 Very strong odour 6 Extremely strong odour

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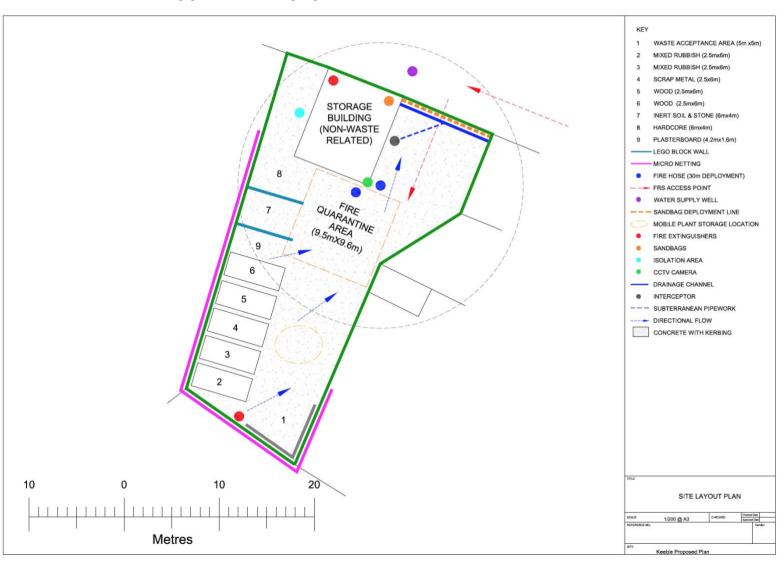
# **Appendix OEMPD:** Monitoring Point Locations



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# **Appendix OEMPE: Odour Suppression Equipment Locations**



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