

Dust Management Plan

RAM Utility Solutions Ltd, Pitt Street, Widnes

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Appendix

Appendix 1 - Reporting Forms

1.0 INTRODUCTION

1.1 Background

1.1.1 Redmore Environmental Ltd was commissioned by RAM Utility Solutions Ltd to produce a Dust Management Plan (DMP) to control potential impacts associated with a proposed Waste Transfer Facility (WTF) at the existing head office and depot operated by the company on land off Pitt Street, Widnes.

1.1.2 The purpose of this DMP is to:

- Establish dust emission sources arising from operations at the facility;
- Set out the procedures followed at the site in order to prevent or minimise dust emissions during normal operating scenarios;
- Set out corrective actions and remedial measures utilised to prevent or minimise dust emissions during abnormal and emergency events;
- Formalise the procedures for dust monitoring at the facility; and,
- Formalise the procedures for dealing with any complaints.

1.1.3 The DMP has been prepared with reference to the following best practice guidance:

- Air Emissions Risk Assessment for your Environmental Permit, Environment Agency (EA), 2016¹;
- Control and Monitor Emissions for your Environmental Permit, EA, 2016²; and,
- Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste, EA, 2004³.

1.1.4 In accordance with the stated guidance, this DMP has been designed to:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise dust pollution;
- Prevent unacceptable dust pollution at all times; and,

¹ <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>.

² <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>.

³ Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste, EA, 2004.

- Reduce the risk of dust pollution releasing incidents or accidents by anticipating them and planning accordingly.

1.2 Site Location and Context

1.2.1 The proposed WTF is located at the existing head office and depot operated by RAM Utility Solutions on land off Pitt Street, Widnes, at National Grid Reference (NGR): 351135, 384440. Reference should be made to Figure 1 for a map of the site and surrounding area.

1.2.2 The proposals comprise the installation of a new WTF at the site. This will be used to dewater and agglomerate non-hazardous waste materials collected by RAM Utility Solutions as part of commercial drainage and confined space clearance operations, prior to bulk transfer offsite to suitable disposal facilities.

1.2.3 The WTF will include the following infrastructure:

- Concrete transfer bays; and,
- A silt interceptor.

1.2.4 Reference should be made to Figure 2 for a layout plan of the proposed WTF.

1.2.5 The operation of the WTF may result in dust emissions from a number of activities. These have the potential to cause adverse effects at sensitive locations in the vicinity of the site. As such, suitable measures to ensure impacts are effectively controlled have been formalised within this DMP.

2.0 PROCESS DESCRIPTION

2.1 Introduction

2.1.1 The proposed waste transfer process is briefly summarised in the following Sections.

2.2 Management

2.2.1 The overall management responsibility for the WTF will lie with RAM Utility Solutions Ltd. Day to day management will be undertaken by an appointed Site Manager who will deal specifically with the operation of the facility.

2.3 Waste Transfer Process

2.3.1 The WTF will be used to dewater and agglomerate non-hazardous waste materials collected by RAM Utility Solutions as part of commercial drainage and confined space clearance operations, prior to bulk transfer offsite to suitable disposal facilities.

2.3.2 The maximum quantity of waste materials that will be stored on site at any one time prior to transfer will not exceed 250t. A summary of the material types that will be accepted by the facility and associated European Waste Codes (EWCs) is provided as follows:

- 17 05 04 - Soil and stones other than those mentioned in 17 05 03;
- 17 05 06 - Dredging spoil other than those mentioned in 17 05 05;
- 20 03 03 - Street cleaning residues;
- 20 03 04 - Septic tank sludge; and,
- 20 03 06 - Waste from sewage cleaning.

2.3.3 Waste materials will be delivered to the facility in tankers which form part of the existing RAM Utility Solutions fleet. Following arrival, the tankers will enter the central section of the main yard and reverse into the transfer bays located in the south-east corner of the site. The waste will be then unloaded and inspected by a site operative in order to identify any evidence of contamination, dusty materials or wastes which are not permitted for acceptance at the facility. In the event that any non-compliant waste is identified, the material will be loaded back onto the delivery vehicle and transferred off-site for disposal at a suitable facility.

- 2.3.4 Following inspection and acceptance, the waste will remain stockpiled within the transfer bays for a period of approximately 1 to 2-weeks. During this interval, natural gravity driven dewatering of the material will occur.
- 2.3.5 All water which drains from the waste will flow via the concrete base of the transfer bays to a silt interceptor featuring a permeable cover. This will be used to capture residual solids within the runoff and ensure that only desilted water is transferred to the public sewer via the outfall pipe.
- 2.3.6 The level of solids within the silt interceptor will be monitored daily. When it is identified that the level is approaching the base of the outfall pipe, the solids will be removed using a RAM Utility Solutions tanker and redeposited in the waste transfer bays.
- 2.3.7 Following completion of dewatering, the material will be periodically removed from the bays using a front-end loading shovel or similar and transferred into bulk haulage vehicles for onward transportation to a suitable waste disposal facility.
- 2.3.8 Reference should be made to Figure 2 for a site layout drawing.

3.0 AIR QUALITY LEGISLATION AND POLICY

3.1 Legislation

3.1.1 The Air Quality Standards Regulations (2010) came into force on 11th June 2010 and include Air Quality Limit Values (AQLVs) for the following pollutants:

- Nitrogen dioxide (NO₂);
- Sulphur dioxide;
- Lead;
- Particulate matter with an aerodynamic diameter of less than 10µm (PM₁₀);
- Particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5});
- Benzene; and,
- Carbon monoxide.

3.1.2 Air Quality Target Values have also been provided for several additional pollutants. It should be noted that the AQLV for PM_{2.5} stated in the Air Quality Standards Regulations (2010) was amended in the Environment (Miscellaneous Amendments) (EU Exit) Regulations (2020).

3.1.3 Part IV of the Environment Act (1995) requires UK government to produce a national Air Quality Strategy (AQS) which contains standards, objectives and measures for improving ambient air quality. The most recent AQS was produced by DEFRA and published in July 2007⁴. The AQS sets out Air Quality Objectives (AQOs) that are maximum ambient pollutant concentrations that are not to be exceeded either without exception or with a permitted number of exceedences over a specified timescale. These are generally in line with the AQLVs, although the requirements for the determination of compliance vary.

3.1.4 Table 1 presents the AQOs and AQLVs for pollutants considered within this DMP.

⁴ The AQS for England, Scotland, Wales and Northern Ireland, DEFRA, 2007.

Table 1 Air Quality Objectives/ Air Quality Limit Values

| Pollutant | Air Quality Objective/ Air Quality Limit Value | |
|-------------------|--|--|
| | Concentration ($\mu\text{g}/\text{m}^3$) | Averaging Period |
| PM ₁₀ | 40 | Annual mean |
| | 50 | 24-hour mean, not to be exceeded on more than 35 occasions per annum |
| PM _{2.5} | 20 | Annual mean |

3.2 Local Air Quality Management

3.2.1 Under Section 82 of the Environment Act (1995) (Part IV) Local Authorities are required to periodically review and assess air quality within their area of jurisdiction under the system of Local Air Quality Management (LAQM). This review and assessment of air quality involves comparing present and likely future pollutant concentrations against the AQOs. If it is predicted that levels at locations of relevant exposure are likely to be exceeded, the Local Authority (LA) is required to declare an Air Quality Management Area (AQMA). For each AQMA the LA is required to produce an Air Quality Action Plan, the objective of which is to reduce pollutant concentrations in pursuit of the AQOs.

4.0 BASELINE

4.1 Introduction

4.1.1 Existing air quality conditions in the vicinity of the site were identified in order to provide a baseline for assessment and to inform the requirements of the DMP. These are detailed in the following Sections.

4.2 Local Air Quality Management

4.2.1 As required by the Environment Act (1995), Halton Borough Council (HBC) has undertaken Review and Assessment of air quality within their area of jurisdiction. This process has indicated that concentrations of NO₂ are above the annual mean AQO within the council's administrative extents. As such, two AQMAs have been declared, these are described as follows:

"Halton Widnes No 1- Deacon Road from the junction at Sayce Street, Albert Road from the Bradley public house to 150 Albert Road, Robert Street, Peelhouse Lane from the junction with Albert Road to the junction with Belvoir Road"

"Halton AQMA No 2 - Milton Road (starting at the junction with Kingsway heading east), Gerrard Street (incorporating the roundabout by Lugsdale Road)"

4.2.2 HBC has concluded that concentrations of all other pollutants considered within the AQS, including PM₁₀, are currently below the relevant AQOs. As such, no further AQMAs have been declared and in accordance with EA guidance⁵, the stated designations have not been considered further in the context of the DMP.

4.3 Air Quality Monitoring

4.3.1 Monitoring of pollutant concentrations is undertaken by HBC throughout their area of jurisdiction. The closest particulate matter survey site is situated approximately 1.2km north of the facility at a kerbside location on Milton Road. Due to the distance between the

⁵ <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>.

locations and difference in surrounding land use, similar pollutant concentrations would not be anticipated at the two positions. As such, this source of information was not considered further in the context of the DMP.

4.4 Background Pollutant Concentrations

4.4.1 Predictions of background pollutant concentrations on a 1km by 1km grid basis have been produced by DEFRA for the entire of the UK to assist Local Authorities in their Review and Assessment of air quality. The site is located in grid square NGR: 351 500, 384500. Data for this location was downloaded from the DEFRA website⁶ for the purpose of the assessment and is summarised in Table 2.

Table 2 Background Pollutant Concentration Predictions

| Pollutant | Predicted 2022 Background Pollutant Concentration ($\mu\text{g}/\text{m}^3$) |
|-------------------|--|
| PM ₁₀ | 12.99 |
| PM _{2.5} | 9.20 |

4.4.2 As shown in Table 2, predicted background PM₁₀ and PM_{2.5} concentrations are below the relevant AQO and AQLV at the site.

4.5 Sensitive Receptors

4.5.1 A sensitive receptor is defined as any location which may be affected by changes in air quality. These have been defined for human and ecological receptors in the following Sections.

Human Receptors

4.5.2 A desk-top study was undertaken in order to identify any sensitive human receptor locations in the vicinity of the site that required specific consideration as part of the DMP. These are summarised in Table 3.

⁶ <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>.

Table 3 Sensitive Human Receptor Locations

| Receptor | | NGR (m) | | Distance from WTF (m) | Direction from WTF |
|----------|-----------------------------|----------|----------|-----------------------|--------------------|
| | | X | Y | | |
| R1 | Commercial - Milton Street | 351077.9 | 384421.7 | 50 | West |
| R2 | Commercial - Pitt Street | 351086.4 | 384447.8 | 40 | North-west |
| R3 | Commercial - Pitt Street | 351134.9 | 384455 | 12 | North |
| R4 | Commercial - Pitt Street | 351162.6 | 384466.9 | 30 | North-east |
| R5 | Commercial - Pitt Street | 351197.2 | 384458.4 | 60 | North-east |
| R6 | Commercial - Milton Street | 351157.5 | 384438.7 | 15 | East |
| R7 | Commercial - Milton Street | 351140.8 | 384408.9 | 15 | South |
| R8 | Residential - Waterloo Road | 351164.2 | 384320.3 | 110 | South |
| R9 | Residential - Waterloo Road | 351137.5 | 384318.4 | 100 | South |
| R10 | Residential - Waterloo Road | 351103.4 | 384309.4 | 120 | South |

4.5.3 The human receptors identified in Table 3 are considered to represent locations that are sensitive to impacts as a result of PM₁₀ and PM_{2.5} emissions, as well as adverse amenity effects associated with dust deposition.

4.5.4 Reference should be made to Figure 3 for a visual representation of the identified receptors.

Ecological Receptors

4.5.5 Dust emissions from the facility also have the potential to impact on receptors of ecological sensitivity within the vicinity of the site. A study was therefore undertaken to identify the following sites of ecological or nature conservation importance within 1 km of the facility boundary:

- Special Areas of Conservation (SACs);
- Special Protection Areas (SPAs);
- Ramsar sites;
- Sites of Special Scientific Interest (SSSIs);
- National Nature Reserves (NNRs);

- Local Nature Reserves (LNRs); and,
- Ancient Woodland (AW).

4.5.6 The study was completed using the Multi-Agency Geographic Information for the Countryside (MAGIC) web-based interactive mapping service⁷ which draws together information on key environmental schemes and designations. A summary of the identified ecological receptors is provided in Table 4.

Table 4 Ecological Receptor Locations

| Receptor | | NGR (m) | | Distance from WTF at Closest Point (m) | Direction from WTF |
|----------|--|---------|--------|--|--------------------|
| | | X | Y | | |
| E1 | Mersey Estuary SSSI, SPA and Ramsar site | 350844 | 383849 | 620 | South-west |

4.5.7 Reference should be made to Figure 4 for a map of the ecological receptor.

4.6 Prevailing Meteorological Conditions

4.6.1 The potential for air quality impacts and adverse amenity effects at sensitive locations depends significantly on the meteorology, particularly wind direction, during emissions. In order to consider prevailing conditions at the site review of historical weather data was undertaken. The closest observation station to the WTF is Liverpool John Lennon Airport at NGR: 343488, 381791, which is approximately 7.9km west-south-west of the boundary. It is considered that conditions are likely to be reasonably similar over a distance of this magnitude and the information is a suitable source of data for an assessment of this nature.

4.6.2 Meteorological data was obtained from Liverpool John Lennon Airport meteorological station over the period 1st January 2015 to 31st December 2019 (inclusive). The frequency of wind from the twelve sectors which best describe the directions which may cause impacts in the vicinity of site is shown in Table 5. Reference should be made to Figure 5 for a wind rose of the meteorological data.

⁷ Multi-Agency Geographic Information for the Countryside, www.magic.gov.uk.

Table 5 Wind Frequency Data

| Wind Direction (°) | Frequency of Wind (%) |
|--------------------|-----------------------|
| 345 - 15 | 3.31 |
| 15 - 45 | 2.52 |
| 45 - 75 | 5.56 |
| 75 - 105 | 6.05 |
| 105 - 135 | 7.46 |
| 135 - 165 | 12.12 |
| 165 - 195 | 10.24 |
| 195 - 225 | 8.71 |
| 225 - 255 | 10.31 |
| 255 - 285 | 12.92 |
| 285 - 315 | 13.20 |
| 315 - 345 | 5.88 |
| Sub-Total | 98.27 |
| Calms | 0.61 |
| Missing/Incomplete | 1.12 |

4.6.3 All meteorological data used in the assessment was provided by Atmospheric Dispersion Modelling Ltd, which is an established distributor of meteorological data within the UK.

4.6.4 As shown in Table 5, the prevailing wind direction at the facility is from the north-west, with significant frequencies from the west and south-east. Winds from the north and east are relatively infrequent, which is indicative of conditions throughout the UK.

5.0 DUST MANAGEMENT PLAN

5.1 Overview

5.1.1 The DMP for the facility follows and addresses the various activities which have the potential to create dust emissions. The following steps were undertaken in order to produce the DMP:

- Identification of dust emission sources;
- Formalisation of emission control measures;
- Risk assessment of potential issues and identification of control measures;
- Production of a dust monitoring procedure;
- Formalisation of process and plant monitoring procedures;
- Production of emergency operating procedures and emission control measures;
- Production of a complaints handling procedure; and,
- Production of a DMP modification procedure.

5.1.2 The results are detailed in the following Sections.

5.2 Sources

5.2.1 Potential emission sources were identified based on review of the activities that will be undertaken at the site. These are summarised Table 6.

Table 6 Dust Sources

| Source | | Source Description | Emission Characteristics |
|--------|-------------------------------------|---|--------------------------|
| 1 | Waste delivery | Dust emissions associated with the unloading of waste materials | Fugitive emissions |
| 2 | Waste storage | Dust emissions from waste materials during storage within the transfer bays | Fugitive emissions |
| 3 | Waste loading and transfer off-site | Dust emissions associated with the loading of materials into the bulk transportation vehicles and transfer off-site | Fugitive emissions |

| Source | | Source Description | Emission Characteristics |
|--------|--|--|--------------------------|
| 4 | Onsite material delivery, transfer and dispatch routes | Resuspension of particulates as a result of onsite vehicle movements | Fugitive emissions |
| 5 | Trackout | Dust emissions associated with trackout | Fugitive emissions |

5.3 Additional Local Emission Sources

5.3.1 Additional potential dust emission sources located in the immediate vicinity of the site are summarised in Table 7. Reference should be made to Figure 6 for a visual representation of the source locations.

Table 7 Local Emission Sources

| Source | | NGR (m) | | Source Description | Emission Characteristics |
|--------|-------------------|---------|--------|---|--------------------------|
| | | X | Y | | |
| 1 | Cemex Readymix | 351007 | 384421 | Dust emissions associated with concrete production operations | Fugitive dust emissions |
| 2 | Milton Metals Ltd | 351176 | 384442 | Dust emissions associated with scrap metal operations at the site | Fugitive dust emissions |
| 3 | Landscape World | 351266 | 384547 | Dust emissions associated with storage of landscaping products | Fugitive dust emissions |
| 4 | UK Pallets | 350889 | 384439 | Dust emissions associated with pallet production operations | Fugitive dust emissions |

5.4 Dust Control Measures

5.4.1 Appropriate measures will be employed at the facility in order to control and minimise dust pollution. These have been determined with reference to relevant best practice guidance and are summarised in Table 8.

Table 8 Dust Control Measures

| Source | | Control Measures |
|--------|----------------|--|
| 1 | Waste delivery | <p>During unloading, all reasonable measures will be undertaken to reduce the drop height of materials in order to minimise disturbance and the associated potential for dust emissions</p> <p>Where practicable, wastes will be tipped as bulk loads to reduce material separation and the overall emitting surface area that is exposed to atmosphere</p> <p>Any spillages which occur during unloading will be cleared immediately by a site operative</p> <p>If required, water will be applied to waste materials as they are unloaded using a directional hose in order to aid particulate suppression</p> <p>Full training in the use of relevant unloading and suppression equipment will be provided to all staff in order to ensure that the correct procedures are adhered to at all times</p> <p>Following completion of unloading, wastes will be inspected by a site operative in order to identify any evidence of dusty materials or wastes which are not permitted for acceptance at the facility. In the event that any non-compliant or significantly dusty waste is identified, the material will be loaded back onto the delivery vehicle and transferred off-site for disposal at a suitable facility</p> <p>Regular checks of tipping operations will be undertaken by a site operative. In the event that the inspections indicate that there is the potential for significant dust emissions from waste delivery operations, despite application of the relevant controls, corrective actions and if required contingency/ backstop measures will be utilised in order to restore control. Reference should be made to Section 5.8 of the DMP for full details of the relevant measures</p> <p>Dust Monitoring will be undertaken daily in order to ensure impacts do not occur as a result of emissions from waste delivery operations. Reference should be made to Section 5.6 for full details of the monitoring procedure</p> |

| Source | | Control Measures |
|--------|--|--|
| 2 | Waste storage | <p>The transfer bays will feature concrete retaining walls on three sides in order to provide partial containment of materials during storage. A minimum gap of 0.5m will be maintained between the top of stockpiled waste and the upper edge of the retaining walls at all times to reduce the potential for surface wind stripping of particulates</p> <p>Stockpiles within the transfer bays will be inspected daily by a site operative in order to assess the overall condition of materials. Should the findings indicate an increased potential for dust emissions, wastes will be covered using protective sheeting and removed from the facility at the earliest practicable opportunity</p> <p>Wastes within the transfer bays will remain static at all times other than when material unloading and loading is taking place in order to limit disturbance and the associated potential for dust emissions</p> <p>Dust Monitoring will be undertaken daily in order to ensure impacts do not occur as a result of emissions from waste delivery operations. Reference should be made to Section 5.6 for full details of the monitoring procedure</p> |
| 3 | Waste loading and transfer off-site | <p>During loading, all reasonable measures will be undertaken to reduce the drop height of materials in order to minimise disturbance and the associated potential for dust emissions</p> <p>Any spillages which occur during loading will be cleared immediately by a site operative</p> <p>Full training in the use of relevant unloading equipment will be provided to all staff in order to ensure that the correct procedures are adhered to at all times</p> <p>Regular checks of loading operations will be undertaken by a site operative. In the event that the inspections indicate that there is the potential for significant dust emissions from waste dispatch operations, despite application of the relevant controls, corrective actions and if required contingency/ backstop measures will be utilised in order to restore control. Reference should be made to Section 5.8 of the DMP for full details of the relevant measures</p> <p>Dust Monitoring will be undertaken daily in order to ensure impacts do not occur as a result of emissions from loading operations. Reference should be made to Section 5.6 for full details of the monitoring procedure</p> |
| 4 | Onsite material delivery, transfer and dispatch routes | <p>A speed limit of 5mph will be enforced on site at all times to reduce dust resuspension as a result of vehicle movements</p> <p>All onsite transfer routes will be constructed of impermeable concrete. This will help to reduce the quantity of dust generated at ground level as a result of vehicle movements</p> <p>Mechanical sweeping of onsite loading and dispatch routes will be undertaken in order to remove residual debris, if required</p> <p>Inspection of all onsite transfer routes will be undertaken daily by a site operative. Should the findings indicate that there is significant potential for dust emissions, water will be applied to the routes using directional hoses in order to aid particulate suppression</p> |

| Source | | Control Measures |
|--------|----------|---|
| 5 | Trackout | <p>All delivery and dispatch vehicles will be inspected prior to leaving site and if required, directional hoses fitted will be utilised in order to remove residual debris and reduce the potential for material trackout</p> <p>Mechanical sweeping of the site access points and local highways will be undertaken in order to remove residual debris, if required</p> |

5.5 Risk Assessment

5.5.1 The Risk Assessment has been undertaken in accordance with the general principles of EA document 'Risk Assessments for your Environmental Permit'. This included consideration of the following:

- Receptor - what is at risk? What do I wish to protect?
- Source - what is the agent or process with potential to cause harm?
- Harm - what are the harmful consequences if things go wrong?
- Pathway - how might the receptor come into contact with the source?
- Probability of exposure - how likely is this contact?
- Consequence - how severe will the consequences be if this occurs?
- Magnitude of risk - what is the overall magnitude of the risk? and,
- Justification for magnitude - on what did I base my judgement?

5.5.2 Based on the Risk Assessment outcomes potential mitigation and control options were identified.

5.5.3 Further explanation for the key assessment areas is provided below.

Receptor

5.5.4 The first step was to consider how the activity could harm the environment. This involved identifying 'receptors' that may be affected and included people, property, and the natural and physical environment.

Probability of Exposure

5.5.5 The probability of exposure was defined based on the likelihood of exposure of the specific receptor to the identified source. This depended on several factors, such as:

- Distance between source and receptor;
- Dispersion potential of emission;
- Duration of emission; and,
- Frequency of emission.

Harm

5.5.6 The severity of harm from a risk depends on:

- How much a person or part of the environment is exposed; and,
- How sensitive a person or part of the environment is.

5.5.7 Some parts of the environment can be very sensitive. For example, serious health effects can occur if humans are exposed to certain chemicals for only short periods of time.

Magnitude of Risk

5.5.8 The level of risk is a combination of:

- How likely a problem is to occur; and,
- How serious the harm might be.

5.5.9 Risk is highest where both the likelihood of a problem is high and the potential harm is severe. Risk is lowest where a problem is unlikely to occur and the harm that might result is not serious.

Assessment

5.5.10 The risk assessment of potential dust impact is provided in Table 9.

Table 9 Dust Risk Assessment

| Data and Information | | | | Control Measures | Judgement | | | |
|--|--|---|---|---|--|--|--|--|
| Receptor | Source | Harm | Pathway | | Probability of exposure | Consequence | Magnitude of risk | Justification for magnitude |
| What is at risk? What do I wish to protect? | What is the agent or process with potential to cause harm? | What are the harmful consequences if things go wrong? | How might the receptor come into contact with the source? | | How likely is this contact? | How severe will the consequence be if this occurs? | What is the overall magnitude of the risk? | On what did I base my judgement? |
| Human and ecological receptors in the vicinity of the site | Waste delivery | Impacts and loss of amenity | Wind-blown emissions | <p>All reasonable measures will be undertaken to minimise the disturbance of materials during unloading and the associated potential for dust emissions</p> <p>Where practicable, wastes will be tipped as bulk loads to reduce material separation and the overall emitting surface area exposed to atmosphere</p> | Low due to the limited frequency and duration of unloading operations, as well as the stated control measures | Medium if impacts and loss of amenity occur regularly at the receptor locations | Low | The limited frequency and duration of unloading operations and proposed control measures are considered to result in low risk of impact and loss of amenity occurring |

| Data and Information | | | | Control Measures | Judgement | | | |
|--|--|---|---|--|---|---|--|--|
| Receptor | Source | Harm | Pathway | | Probability of exposure | Consequence | Magnitude of risk | Justification for magnitude |
| What is at risk? What do I wish to protect? | What is the agent or process with potential to cause harm? | What are the harmful consequences if things go wrong? | How might the receptor come into contact with the source? | | How likely is this contact? | How severe will the consequence be if this occurs? | What is the overall magnitude of the risk? | On what did I base my judgement? |
| Human and ecological receptors in the vicinity of the site | Waste storage | Impacts and loss of amenity | Wind-blown emissions | <p>The quantity of waste stored within the bays will not exceed 250t</p> <p>The bays will feature concrete retaining walls in order to provide partial containment of materials</p> <p>The height of stockpiles will be limited to minimise the potential for surface wind stripping of dust</p> <p>Any waste which is identified as dusty will be covered using protective sheeting and removed from the facility at the earliest opportunity</p> | <p>Low due to partial containment of wastes within the bays, the static nature of materials during storage and the stated control measures</p> | <p>Medium if impacts and loss of amenity occur regularly at the receptor locations</p> | <p>Low</p> | <p>The limited quantity of materials that will be stored within the bays and proposed control measures are considered to result in low risk of impact and loss of amenity occurring</p> |

| Data and Information | | | | Control Measures | Judgement | | | |
|--|--|---|---|---|--|--|--|--|
| Receptor | Source | Harm | Pathway | | Probability of exposure | Consequence | Magnitude of risk | Justification for magnitude |
| What is at risk? What do I wish to protect? | What is the agent or process with potential to cause harm? | What are the harmful consequences if things go wrong? | How might the receptor come into contact with the source? | | How likely is this contact? | How severe will the consequence be if this occurs? | What is the overall magnitude of the risk? | On what did I base my judgement? |
| Human and ecological receptors in the vicinity of the site | Waste loading and transfer off-site | Impacts and loss of amenity | Wind-blown emissions | <p>All reasonable measures will be undertaken to minimise the disturbance of materials during loading and the associated potential for dust emissions</p> <p>Full training in the use of loading equipment will be provided to all staff</p> <p>Regular checks of loading operations will be undertaken by a site operative</p> | Low due to the limited frequency and duration of loading operations, as well as the stated control measures | Medium if impacts and loss of amenity occur regularly at the receptor locations | Low | The limited frequency and duration of loading operations and proposed control measures are considered to result in low risk of impact and loss of amenity occurring |

| Data and Information | | | | Control Measures | Judgement | | | |
|--|--|---|---|--|---|--|--|---|
| Receptor | Source | Harm | Pathway | | Probability of exposure | Consequence | Magnitude of risk | Justification for magnitude |
| What is at risk? What do I wish to protect? | What is the agent or process with potential to cause harm? | What are the harmful consequences if things go wrong? | How might the receptor come into contact with the source? | | How likely is this contact? | How severe will the consequence be if this occurs? | What is the overall magnitude of the risk? | On what did I base my judgement? |
| Human and ecological receptors in the vicinity of the site | Onsite material delivery and dispatch routes | Impacts and loss of amenity | Wind-blown emissions | <p>A speed limit of 5mph will be enforced on site at all times</p> <p>Mechanical sweeping of onsite loading and dispatch routes will be undertaken, if required</p> <p>Water will be applied to the onsite transfer routes using directional hoses to minimise the potential for resuspension of particulates, if required</p> | Low due to the limited frequency and duration of vehicle movements, as well as the stated control measures | Medium if impacts and loss of amenity occur regularly at the receptor locations | Low | The limited frequency and duration of vehicle movements and proposed control measures are considered to result in low risk of impact and loss of amenity occurring |

| Data and Information | | | | Control Measures | Judgement | | | |
|--|--|---|---|---|---|--|--|---|
| Receptor | Source | Harm | Pathway | | Probability of exposure | Consequence | Magnitude of risk | Justification for magnitude |
| What is at risk? What do I wish to protect? | What is the agent or process with potential to cause harm? | What are the harmful consequences if things go wrong? | How might the receptor come into contact with the source? | | How likely is this contact? | How severe will the consequence be if this occurs? | What is the overall magnitude of the risk? | On what did I base my judgement? |
| Human and ecological receptors in the vicinity of the site | Trackout | Impacts and loss of amenity | Wind-blown emissions | <p>All delivery and dispatch vehicles will be inspected prior to leaving site. If required, directional hoses will be used to remove residual debris</p> <p>Mechanical sweeping of the site access points and local highways will be undertaken in to remove residual debris, if required</p> | Low due to the stated control measures | Medium if impacts and loss of amenity occur regularly at the receptor locations | Low | Full implementation of the stated control measures is considered to result in a low risk of impact and loss of amenity occurring |

5.5.11 As indicated in Table 9, the magnitude of risk as a result of dust emissions from the identified sources was **low** in all cases.

5.6 Dust Monitoring Procedure

5.6.1 A programme of Dust Monitoring will be undertaken at the facility in order to assess the effectiveness of the previously stated control measures and ensure that significant impacts do not occur as a result of normal operations. Visual inspection of the following areas will be undertaken by a site operative daily to assess potential dust releases:

- The site perimeter;
- The onsite waste delivery and dispatch routes;
- The waste storage bays;
- The site access points; and,
- The local highway in the immediate vicinity of the site.

5.6.2 The inspections will be principally undertaken during operational periods whilst delivery and dispatch activities are taking place in order to ensure that they provide a representative assessment of dust emission potential.

5.6.3 In the event that significant dust emissions are observed at any of the stated inspection locations, action will be taken to suppress releases. The exact measures will be determined based on the dust source and the magnitude of observed emissions. However, the process will typically involve:

- Implementation of one or a combination of the non-continuous control measures specified in Table 8;
- Changes to operational procedures;
- Implementation of one or a combination of the backstop measures specified in Section 5.8; and,
- Completion of additional visual inspections in order to assess the effectiveness of any implemented control measures and to identify any residual issues.

5.6.4 The findings of the visual inspections and any changes made to the DMP as a result of the monitoring will be recorded on the relevant forms included at Appendix 2. These will be kept within a file maintained by the Site Manager.

5.6.5 It should be noted that there may be the requirement for additional visual inspections to be undertaken at the stated positions and other locations in the vicinity of the site in response to any complaints received. These may need to be completed during non-operational periods and will be coordinated by the Site Manager in the first instance.

5.7 Process Monitoring and Maintenance Schedule

5.7.1 A programme of monitoring and maintenance will be undertaken to ensure that all plant and systems operate correctly and provide effective control of emissions. All observations will be recorded by relevant personnel to allow examination of long-term performance trends. Details of the proposed monitoring and maintenance schedule are provided in Table 10.

Table 10 Process and Plant Monitoring and Maintenance Schedule

| Activity | Frequency | Details | Persons Responsible |
|--|---------------------------|--|---------------------|
| Waste acceptance | All waste deliveries | On arrival to the site, a visual inspection of materials will be undertaken by a site operative in order to identify any evidence of contamination. Any deliveries which do not meet the relevant acceptance criteria will be transferred off-site immediately for return to the producer or disposal via alternative routes | Site operatives |
| Waste storage | Daily | The waste storage bays will be inspected visually on a daily basis by a site operative in order to assess the overall condition of materials. Should the findings indicate that there is an increased potential for dust emissions as a result of the nature or form of stored materials, the wastes will be covered using protective sheeting and removed from the facility at the earliest practicable opportunity Records of all inspections and any control measures implemented to reduce the potential for dust emissions as a result of waste storage will be made and maintained in accordance with the requirements of the site management systems | Site operatives |
| Delivery and dispatch vehicle inspection | All vehicles leaving site | All vehicles will be inspected by a site operative prior to leaving site. If required, directional hoses will be utilised in order to remove residual debris and reduce the potential for trackout | Site operatives |

| Activity | Frequency | Details | Persons Responsible |
|--|-----------|---|---------------------|
| Inspection of onsite material transfer routes | Daily | All onsite material transfer routes will be inspected daily by a site operative in order to determine the potential for surface dust resuspension as a result of vehicle movements | Site operatives |
| Inspection of site access points and local highway | Daily | Inspection of the facility access points and local highway will be undertaken daily by a site operative in order to ensure that they are free from debris Any material spillages will be reported to the Site Manager and cleared by an operative within the working day Mechanical sweeping of the site access points and local highways will be undertaken to remove residual debris, if required | Site operatives |
| Inspection of loading operations | Daily | Daily checks of loading operations will be undertaken by a site operative. Should these indicate that the relevant control measures are not being utilised, further training will be provided in relation to the use of equipment and loading operations | Site operatives |

5.8 Corrective Actions and Contingency Measures

5.8.1 Should the results of the process and plant inspections or dust monitoring indicate that there is the potential for elevated dust emissions, despite application of the control measures specified in Table 8, there may be the requirement for implementation of contingency and backstop measures. These are detailed further in Table 11.

Table 11 Contingency Measures

| Scenario | Process Area / Source | Contingency Measures | Backstop Measures |
|--|---|--|---|
| Elevated dust emissions as a result of waste delivery, storage or loading operations | Applicable to all process areas / sources | <p>Should the findings of the inspections or monitoring indicate that there is the potential for significant dust emissions from waste delivery, storage or loading operations, despite application of the relevant control measures, activities will be suspended for 1-hour. During this period, investigative work will be undertaken by a site operative in order to determine the source of emissions and additional measures will be implemented in order to restore control</p> <p>Following identification of potential sources, contingency measures will be considered and if required implemented at the site. These may include:</p> <ul style="list-style-type: none"> • Containment of materials • Removal of materials from process areas or the site, if appropriate • Repair work to restore process area/ source containment • Changes to automated and manual processes • Cleaning of process areas <p>Further monitoring and inspection will be undertaken within 1-hour of implementation of the relevant measure(s) in order to ascertain whether control has been restored. Should this process indicate that there is still the potential for significant dust impacts, backstop measures will be considered and if required utilised</p> | <p>The following backstop measures will be considered and if required utilised should the stated corrective actions fail to restore control:</p> <ul style="list-style-type: none"> • Diversion of waiting deliveries to an alternative facility • Diversion of pending deliveries to an alternative facility • Suspension of operations • Instruction of emergency waste material collections <p>Further monitoring and inspection will be undertaken within 1-hour of implementation of the relevant measure(s) in order to determine whether normal operations can be re-established</p> |

5.9 **Abnormal / Emergency Scenarios**

5.9.1 There is the potential for increased dust emissions during certain abnormal and emergency scenarios. The relevant actions to limit impacts during these situations are outlined in Table 12.

Table 12 Abnormal and Emergency Response Scenario

| Scenario | Operator Response |
|---|--|
| Failure of site infrastructure | <p>In the very unlikely event that damage is caused to the structure of the waste transfer bays, there may be an increased potential for fugitive dust emissions. As such, appropriate repair work will be undertaken by site engineers or a specialist contractor as a matter of urgency</p> <p>In the event of prolonged failure of site infrastructure, a review of operations will be undertaken and if appropriate specific activities will be suspended until the relevant remedial work has been undertaken</p> |
| Fire and/or explosions | <p>A fire on site may lead to exposure of materials to atmosphere</p> <p>Any fire would be extinguished as a matter of urgency by the emergency services. This would reduce the duration of any dust effect as far as practicable</p> <p>Any materials released by fire would be cleaned by a site operative or specialist contractor. If any infrastructure is damaged this would be repaired or replaced as a matter of urgency</p> |
| Staff unavailability due to industrial action, sickness etc | Staff unavailability may affect facility operations. If this was the case emergency cover would be arranged to ensure the process was not disturbed |
| Extreme weather events such as prolonged rainfall, lightning strikes, flood etc | The risk of additional dust emissions due to extreme weather events is not considered significant |

5.10 **Dust Complaint Procedure**

5.10.1 Full details of any complaints received direct to the site will be provided to the EA in accordance with the requirements specified in the Environmental Permit for the facility.

5.10.2 Any received dust complaints will be dealt with by the Site Manager, or an alternative member of the Management Team in the first instance. The first stage of the procedure will involve collection of basic details in regards the event, either directly from the complainant or from the EA officer reporting the incident. This will take place within 24-

hours of a complaint being received and will include acquisition of the following information which will be recorded on the form included at Appendix 1 of the DMP:

- The name and address of the complainant;
- The date and time of dust detection; and,
- A description of the nature of the complaint.

5.10.3 The following additional information will then be recorded on the form by the member of the team assigned to the complaint:

- The activities taking place on the plant during the incident;
- The timing of the complaint and whether weekday, weekend etc;
- The prevailing meteorological conditions; and,
- The feasibility of making changes to the activities responsible for the complaint.

5.10.4 After details of the complaint have been compiled, the cause(s) will be investigated. The specific procedures will depend on the nature of the incident and details provided by the EA and/or complainant. However, in most cases the process will involve identification of contributory dust sources and consideration of the following elements:

- The effectiveness of process controls;
- The effectiveness of containment measures;
- The performance of treatment systems; and,
- The effectiveness of dispersion methods.

5.10.5 Where an investigation identifies a dust issue, remedial action will promptly be implemented. The exact measures will be determined based on the dust source and the likelihood of incident reoccurrence.

5.10.6 Details of any actions undertaken in response to complaints will be recorded on the form included at Appendix 2. In addition, the DMP will be reviewed following receipt of any complaint in order to ensure that the control measures employed at the site are appropriate. Any changes made to the DMP will be recorded on the relevant form included at Appendix 2.

5.11 Neighbour and Community Engagement

5.11.1 In order to promote neighbour and community engagement, details of how to contact a member of the Site Management Team will be displayed at the entrance to the facility. This will facilitate direct communication of any concerns or complaints in relation to dust so that prompt and appropriate remedial action can be undertaken.

5.11.2 Any communication received will be dealt with on a case by case basis and in accordance with the complaints procedure detailed in the previous Section. However, review of all communications will be undertaken every 6-months in order to identify any long-term trends and establish whether any additional engagement measures such as organisation of community liaison group meetings or development of website facilities are required.

5.11.3 In the event that multiple complaints are received on any operational day, a full inspection of the facility and visual dust monitoring will be undertaken in accordance with the procedures set out in Sections 5.6 and 5.7. Should the results of inspections or dust monitoring indicate that there is the potential for elevated emissions, despite application of the controls measures specified in Table 8, the contingency and backstop measures outlined in Table 11 will be reviewed and implemented, if required.

5.12 Record Keeping

5.12.1 All records and reporting forms will be kept within appropriate files maintained by the Site Manager. These will collectively form a permanent record of dust issues associated with the facility and can be used should investigation of complaints or other concerns be necessary. The files will be kept on-site at all times and will be available for inspection by the EA.

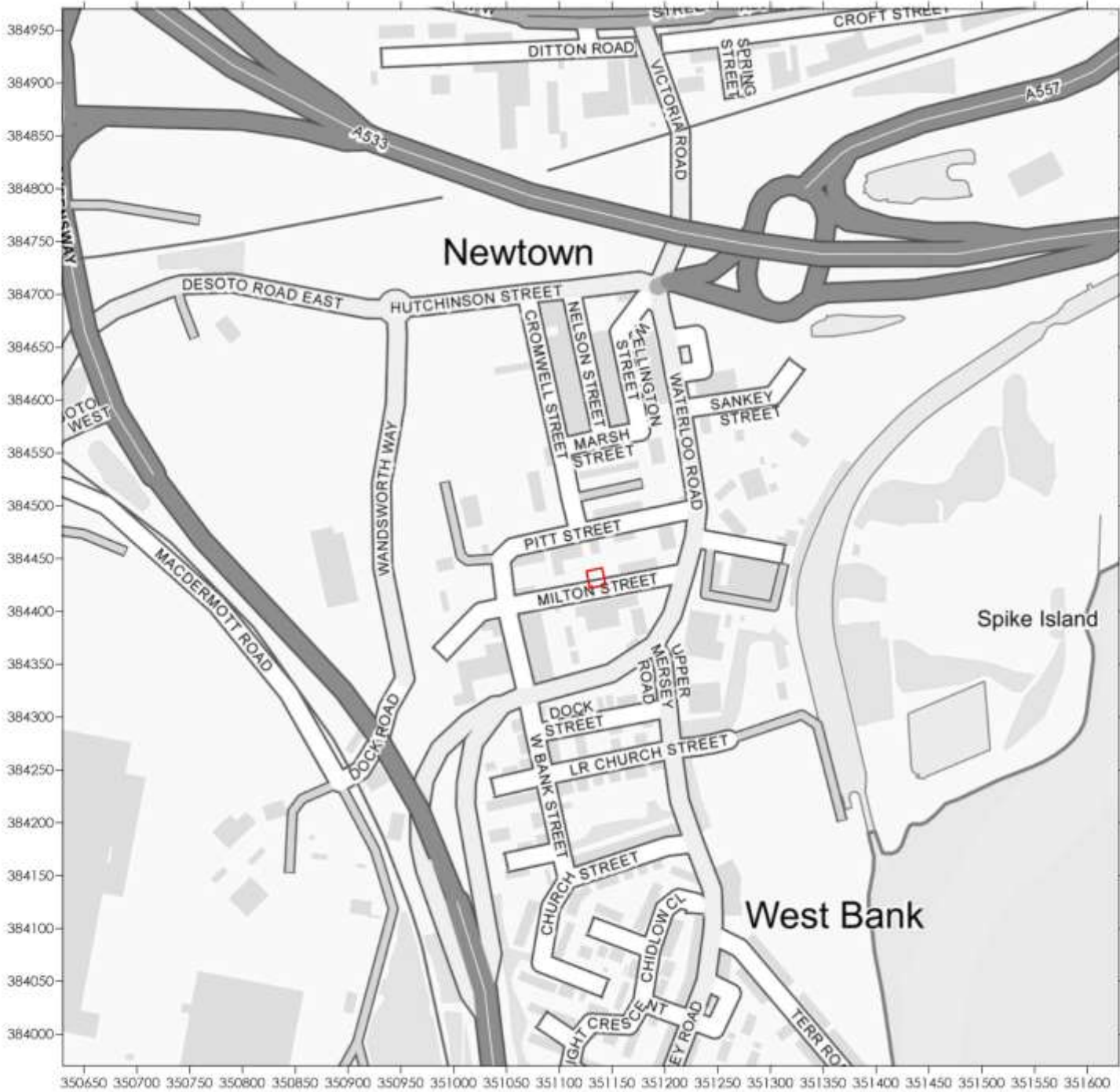
5.13 Dust Management Plan Review Procedure

5.13.1 The DMP shall be reviewed at least once every 12-months or as soon as practicable after a complaint (whichever is the earlier) and changes recorded in the format shown in Appendix 1.

6.0 **ABBREVIATIONS**

| | |
|-------------------|--|
| AQLV | Air Quality Limit Value |
| AQMA | Air Quality Management Area |
| AQO | Air Quality Objective |
| AQS | Air Quality Strategy |
| AW | Ancient Woodland |
| DEFRA | Department for Environment, Food and Rural Affairs |
| EA | Environment Agency |
| HBC | Halton Borough Council |
| LA | Local Authority |
| LAQM | Local Air Quality Management |
| LNR | Local Nature Reserve |
| MAGIC | Multi-Agency Geographic Information for the Countryside |
| NGR | National Grid Reference |
| NNR | National Nature Reserve |
| NO ₂ | Nitrogen dioxide |
| PM | Particulate matter |
| PM ₁₀ | Particulate matter with an aerodynamic diameter of less than 10µm |
| PM _{2.5} | Particulate matter with an aerodynamic diameter of less than 2.5µm |
| SAC | Special Area of Conservation |
| SPA | Special Protection Area |
| SSSI | Site of Special Scientific Interest |
| WTF | Waste Transfer Facility |

Figures



Legend

 Waste Transfer Facility

Title

Figure 1 - Site Location

Project

Dust Management Plan
RAM Safety Solutions UK Ltd,
Pitt Street, Widnes

Project Reference

4482-1

Client

RAM Utility Solutions Ltd

Contains Ordnance Survey Data
© Crown Copyright and Database Act 2019





Legend

Title
Figure 2 - Site Layout

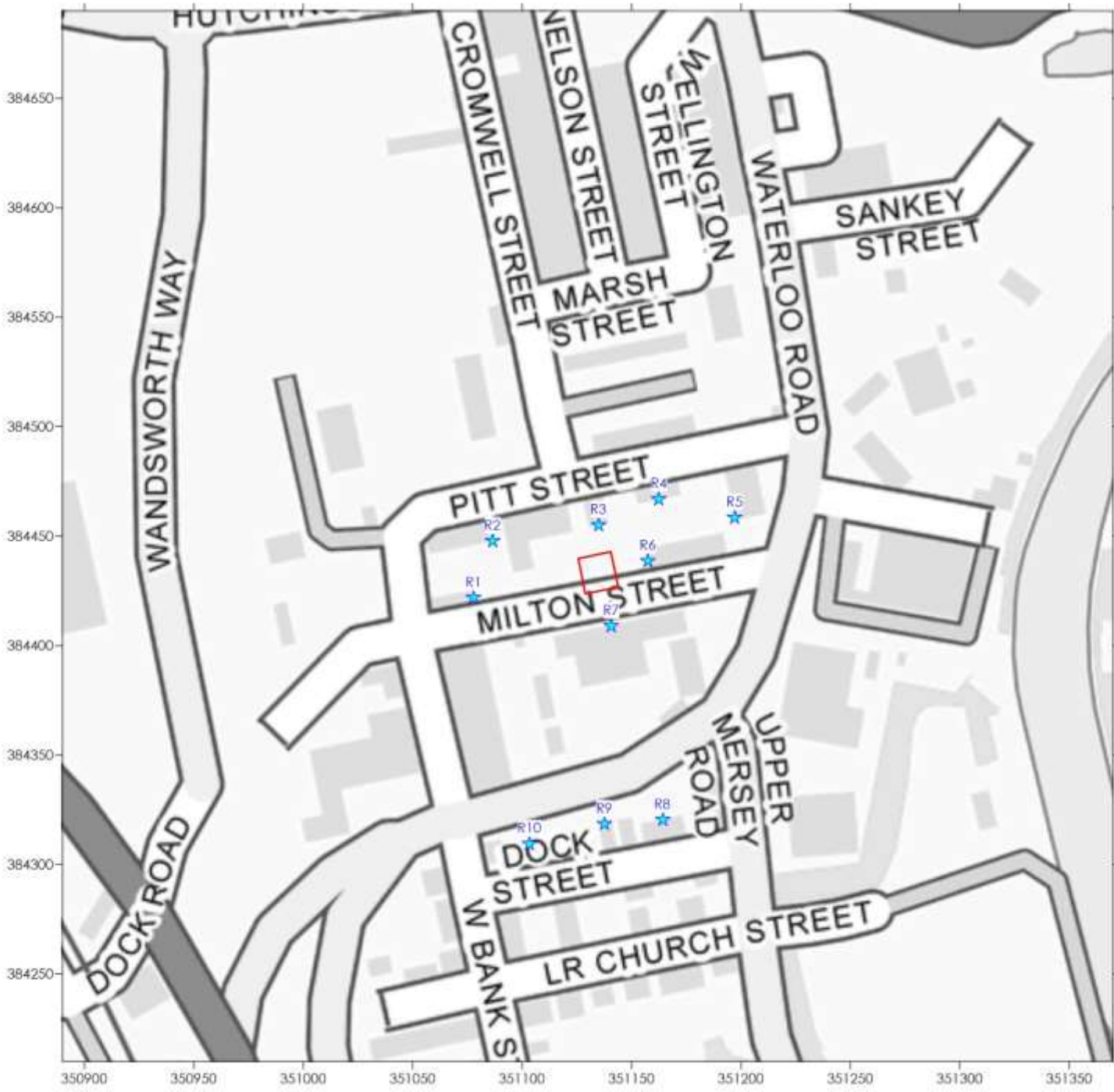
Project
Dust Management Plan
RAM Safety Solutions UK Ltd,
Pit Street, Widnes

Project Reference
4482-1

Client
RAM Utility Solutions Ltd

| | | |
|--|---|--|
| Date: 18.05.2021 Drawing No: 001 Scale: NTS | |  RUT Consulting Ltd The Old Mill, The Mill Lane, Widnes, Cheshire, WA8 7JL T: 0151 326 1000 E: enquiries@rut.co.uk W: www.rutconsulting.co.uk |
| Project: Pit Street Drawing Title: Pit Street Site Plan | | |
| No. of Sheets: 01 of 01 Date: 18.05.2021 Author: JWS Checker: JWS | Client: RAM Safety Solutions Project: Pit Street | This document contains the drawings, design or other intellectual property produced by RUT Consulting Partnership. It is not to be used for any other project without the prior written permission of RUT Consulting Partnership. RUT Consulting Partnership shall not be liable for any damage or loss resulting from the use of this document. |





Legend

-  Waste Transfer Facility
-  Human Receptor

Title
Figure 3 - Human Receptor Locations

Project
Dust Management Plan
RAM Safety Solutions UK Ltd,
Pitt Street, Widnes

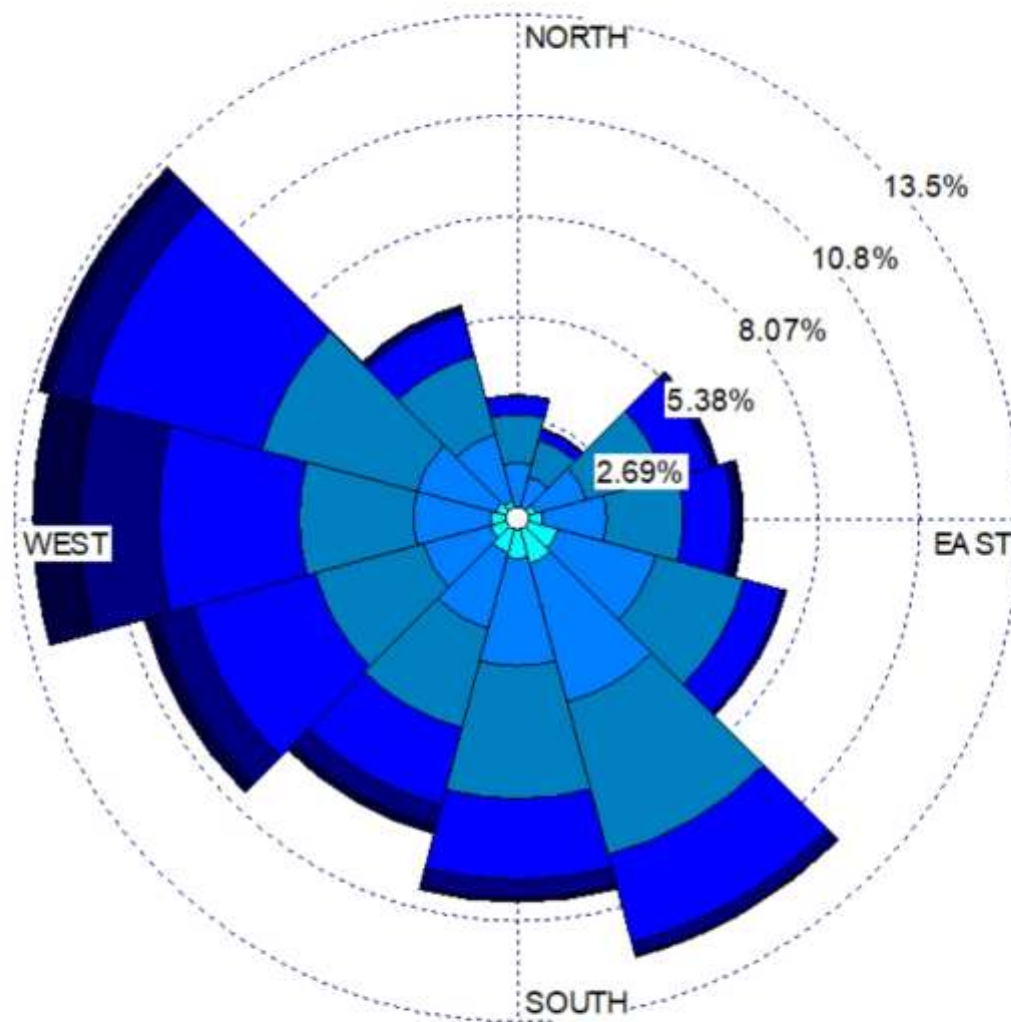
Project Reference
4482-1

Client
RAM Utility Solutions Ltd

Contains Ordnance Survey Data
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Legend



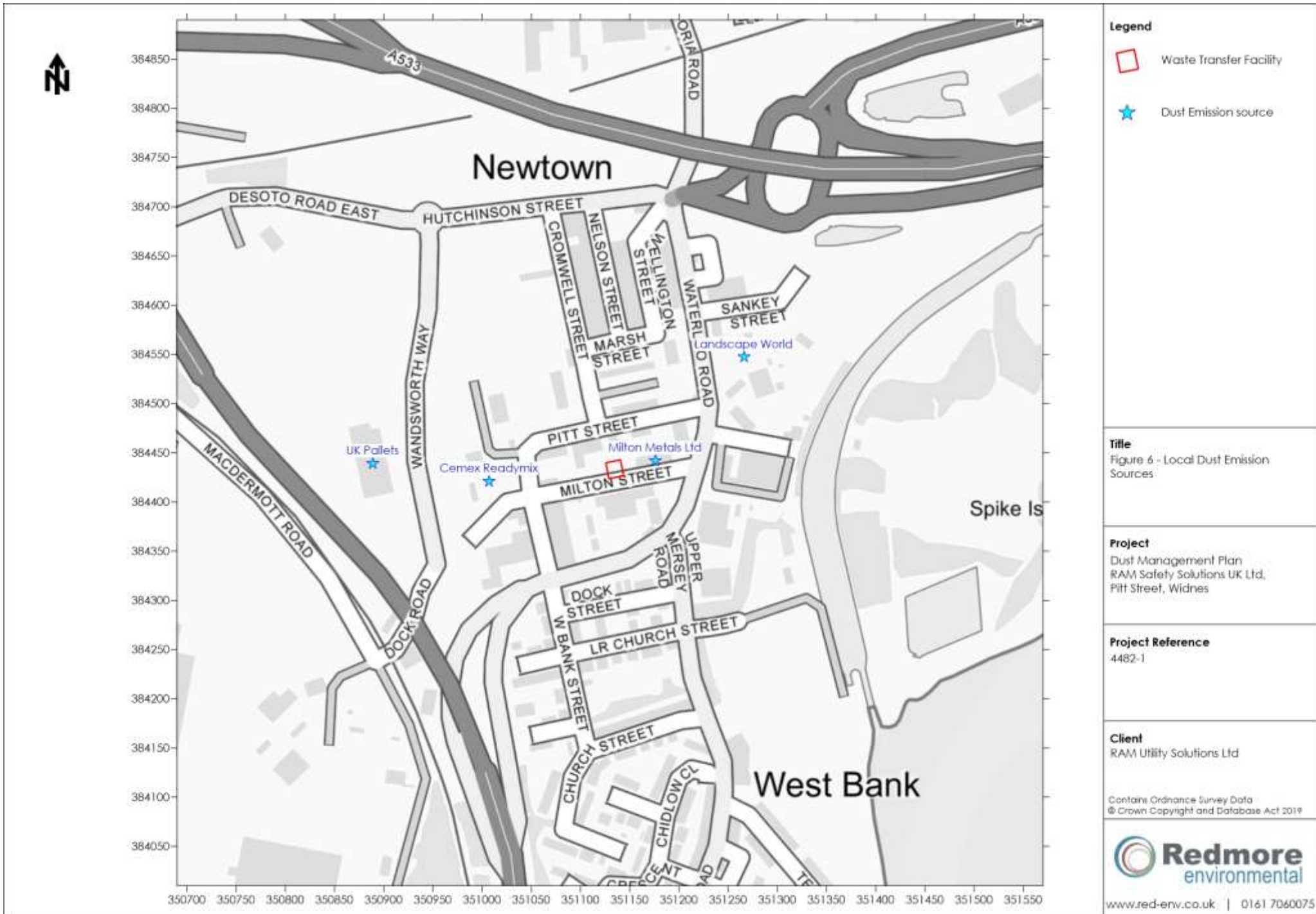
Title
Figure 5 - Wind Rose of 2015 to 2019
Liverpool John Lennon Airport
Meteorological Data

Project
Dust Management Plan
RAM Safety Solutions UK Ltd,
Pitt Street, Widnes

Project Reference
4482-1

Client
RAM Utility Solutions Ltd





Date: 12th January 2022

Ref: 4482-1



Appendix 1 - Reporting Forms

REPORTING FORM 1: VISUAL DUST INSPECTION

NOTE: This form should be used for recording results from visual site inspection. All fields should be completed in full.

Reporting of dust on (date):

| Location | Time of Inspection | Meteorological Conditions | Current Site Activities | Dust Conditions |
|----------|--------------------|---------------------------|-------------------------|-----------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Monitoring undertaken by:.....

Additional observations from monitoring personnel during testing:.....

.....

Details of any required amendments to site operation as a consequence of findings:.....

.....

Signed:.....

Date:.....

REPORTING FORM 2: COMPLAINT REPORTING FORM

NOTE: This form should be used for recording details of any dust complaints. All fields should be completed in full.

Reporting of dust complaint on (date):.....

Name, telephone number and address of complainant:.....

.....

Details of complaint:.....

Date, time and duration of dust impact:.....

Description of dust impact:.....

Meteorological conditions during incident:.....

Potential sources or activities that could give rise to dust during incident:.....

.....

Operating conditions at time of incident:.....

Date and time of complaint follow up call:.....

Action taken:.....

Details of any required amendments to DEMP or site

operation:.....

Signed:..... Date:.....

(authorised to sign)

REPORTING FORM 3: DUST MANAGEMENT PLAN AMENDMENT FORM

NOTE: This form should be used for recording details of any amendments to the DEMP. All fields should be completed in full.

| Date of Review | Detail of Amendment | Signature |
|----------------|---------------------|-----------|
| | | |
| | | |
| | | |
| | | |