

# **Polyethylene Terephthalate Plastics Recycling Facility (PETPRF)**

## **Dust and Emission Management Plan**

Client: Enviroo Project Company Ltd

Ref No.: K0419-AYE-R-ENV-00009

Date: January 2026

## Document control

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	January 2026	Draft Issued	<i>Oliver Nickson</i>	<i>John Baxter</i>	<i>John Baxter</i>

**Disclaimer:** Please note that this report is based on specific information, instructions, and information from our Client and should not be relied upon by third parties.



[www.ayesaeng.com](http://www.ayesaeng.com)

[www.ayesa.com/en](http://www.ayesa.com/en)

## Revision List

Revision number / Report Reference	Revision authorised by	Date submitted to Environment Agency	Revision owner

# Content

<b>[1]</b>	<b>Introduction .....</b>	<b>1</b>
	[1.1] Overview.....	1
	[1.2] Site Location and Description .....	2
	[1.3] Maintenance and review of the DEMP .....	2
	[1.4] Relevant Sector Guidance .....	2
<b>[2]</b>	<b>Dust and Emissions Source Term Characterisation.....</b>	<b>3</b>
<b>[3]</b>	<b>Receptors .....</b>	<b>4</b>
	[3.1] Receptor List .....	4
	[3.1.1] Residential, recreational, industrial, commercial, and educational premises .....	6
	[3.1.2] Highways and footpaths .....	6
	[3.2] Meteorological Conditions.....	6
	[3.2.1] Wind Direction .....	6
	[3.2.2] Wind Velocity.....	6
	[3.2.3] Air Temperature .....	7
	[3.2.4] Adverse Weather Conditions .....	7
<b>[4]</b>	<b>Dust and Emissions Risk Assessment.....</b>	<b>8</b>
	[4.1] Site Dust Emissions .....	8
<b>[5]</b>	<b>Control measures and process monitoring.....</b>	<b>11</b>
	[5.1] Waste Pre-Acceptance and Acceptance.....	11
	[5.1.1] Waste Acceptance .....	11
	[5.1.2] Waste handling and storage .....	11
	[5.2] PRF Building Controls.....	11
	[5.3] Housekeeping Practices .....	12
	[5.4] Drainage .....	12
<b>[6]</b>	<b>Dust Reporting .....</b>	<b>13</b>
	[6.1] Overview.....	13
	[6.2] Complaints reporting.....	13
	[6.2.1] Complaints procedure .....	13
	[6.2.2] Complaints Investigation .....	14
	[6.3] Community engagement.....	14
	[6.4] Monitoring.....	14
	[6.4.1] Off-Site Dust.....	14
	[6.4.2] PM10 Monitoring .....	15

[6.5]	Dust Investigation .....	15
	[6.5.1] Dust investigation procedure.....	15
	[6.5.2] Corrective Actions .....	16
[6.6]	Abnormal Events and Contingency Procedures.....	16
	[6.6.1] Strong Winds.....	16
	[6.6.2] Hot Conditions.....	16
	[6.6.3] Unscheduled unavailability.....	16
[6.7]	Records and Review.....	16

## Appendices

- Appendix A. Daily Record Log
- Appendix B. Complaints Form

## [1] Introduction

### [1.1] Overview

This Dust and Emissions Management Plan (DEMP) supports an application by Enviroo Project Company Limited (Enviroo) for an environmental permit to operate a Plastic Recycling Facility (PRF) (the Site).

The purpose of this DEMP is to identify which aspects of the operations may have the potential to cause potentially harmful emissions of uncontrolled dust and how these emissions will be minimised.

This DEMP will form part of the site's Operating Techniques to control and manage dust. This presents the potential dust emissions, the pathways and receptors sensitive to dust. Section 5 contains dust controls and section 6 provides community engagement, reporting and contingency measures.

Environment Agency guidance<sup>1</sup> identifies that an emission management plan for dust must be completed if you are:

- keeping, treating or disposing into a landfill, waste material that gives rise to fine or dusty materials - examples include but are not limited to; wood, aggregates, biowaste in the open, concrete, scrap metal, incinerator bottom ashes, gypsum, asbestos, glass or mixtures containing these wastes;
- recovering waste at a deposit for recovery site; or
- an installation that may produce fugitive dust emissions, such as but not limited to, cement and lime works.

And you are:

- in, or within 1000m of an air quality management area for PM10
- within 500m of a sensitive receptor.

Whilst the PRF does not meet these criteria, a dust and emissions management plan has been produced at the insistence of the Environment Agency. This management plan considers the factors that make the proposed activity low risk with respect to dust.

This management plan is proportionate to the follow:

- low dust generation potential from the proposed waste handling activities and no dust potential from the wastewater treatment plant,
- low dust generation potential from the wastes to be handled;
- activities to be undertaken inside fully enclosed buildings; and
- processing is subject to dust abatement with suitable air extraction and filtration system.

---

<sup>1</sup> <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#dust-mud-and-litter>

## [1.2] Site Location and Description

The site is located at Plot 13 of Protos Plastic Park part of the wider Protos Recovery Park located at Ince Marshes. The recovery park covers an area of approximately 54 hectares with various waste and energy industries occupying plots. Adjacent plots comprise a glass bottle manufacturing plant, resource recovery facility and biomass facility. The plastic park will comprise various plastic recycling and recovery facilities and a plastic to hydrogen facility.

The site occupies an area of approximately 2.3 hectares and is located approximately 1.6km east of the town of Ince, and 1.1km northeast to the town of Elton, within a mixed industrial and semi-rural setting. The site address is Enviroo Project Co., Marsh Lane, Ince, CH2 4FP at approximate National Grid Reference 346508 376458.

The site lies at circa 8m AOD. There is a fall from west to east with the western boundary at approximately 9m AOD and the eastern boundary at 4.5m AOD. The northern boundary is formed by Marsh Lane, to the northwest is Protos Plot 10b and to the south a restricted byway (public right of way), which runs adjacent to Grinsome Road. The eastern boundary located approximately 20m from the restricted byway which links to Marsh Lane to the northeast of the site.

Enviroo (the Operator) propose to accept up to 35,000 tonnes per annum of baled waste plastic for processing for recovery. The processing includes sorting, shredding, grinding, heating, washing and drying to create a plastic pellet product which meets end of waste criteria specifically food grade recycled polyethylene terephthalate (rPET) for the plastic manufacturing sector. Annual production of recycled plastic pellets is estimated at 17,500 tonnes. All activities will be within a new portal framed modular build warehouse with air extraction and treatment (PRF building). The site layout is shown on drawing reference 250064-WDK-XX-XX-D-A-0400 entitled Proposed Site Plan dated 21 May 2025.

The PRF building will have five vehicular access doors, two on the northern aspect, one on the southern aspect and two on the western aspect to allow delivery of waste plastic and the export of rPET and waste materials. The site layout is shown on drawing reference 250064-WDK-XX-XX-D-A-0400 entitled Proposed Site Plan dated 21 May 2025. A feedstock area is to be located in a separate goods in / storage building to the west of the PRF building.

A weighbridge and weighbridge office will be located adjacent to the entrance to the north off Marsh Lane. To the northwest of the site will be the Wastewater Treatment Plant (WwTP).

## [1.3] Maintenance and review of the DEMP

The Chief Operating Officer (COO) and General Manager are responsible for the DEMP and ensuring staff are suitability trained in the content of the DEMP. A copy of this DEMP will be included in the Site Management System held at the Site Office and all members of staff will have access to this document.

## [1.4] Relevant Sector Guidance

Reference has been made to the following guidance documents:

- Control and monitor emissions for your environmental permit (Environment Agency, December 2025)
- Appropriate measures for permitted facilities: non-hazardous and inert waste (Environment Agency, August 2023).

- Dust Emissions Management Plan template (Environment Agency's Waste and Air Quality Working Group, version 10, 2018)
- Best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council. 10 August 2018.

## [2] Dust and Emissions Source Term Characterisation

The activities associated with the PRF that have the potential to produce dust and further emissions are:

- Delivery of waste to site (emissions from vehicle exhausts only).
- Treatment of plastic bottles (internal).
- Transfer of residual material.

Plastic bales are the only waste stream to be accepted for treatment at the PRF.

The plastic bales used in the process will be purchased from PRFs pre-sorted to ensure high PET content and minimum contamination. The material will be subject to sorting, either at source or at the facility.

The recycling process involves the following main processes:

- Delivery of baled plastic.
- Screening and delabelling.
- Sorting and segregation by type and colour.
- Reduction in size of plastic waste and washing.
- Flaking of PET material and drying.
- Extrusion involving blending and heating of flakes to create a PET product.

Plastic wastes are not inherently at risk of producing dust. Particulate matter can be generated during mechanical processing of plastic waste (shredding, sorting or granulation), although this is unlikely to generate significant quantities of fine airborne dust and is undertaken inside an enclosed building.

All incoming wastes are subject to strict acceptance procedures. Non-target materials are removed during the sorting and washing process. Intermediary storage is provided within the PRF building and extrusion hall prior to transfer externally for storage pending removal off site. This excludes fines and labels removed from the trommel and during pre-wash which are conveyed directly to an external storage skip. Non-target materials will be stored for a maximum of 28 days however maximum storage times will be considerably reduced by the volume per day and storage capacity as well as the customer or onward recipient of the material. Bales will be processed continually however a maximum storage time of 14 days is proposed in the event of plant maintenance and/or repairs.

Due to the design of the building structure, the enclosed processing activities and the nature of the waste feedstock materials stored and processed on site, there is very little potential for offsite dust emissions and impacts to arise from the site.

The waste plastic material is stored in storage bays within the feedstock store, all bays are within an enclosed building.

## **[3] Receptors**

### **[3.1] Receptor List**

When choosing the receptors, the closest or the most sensitive (if different from the closest) have been considered in each direction from the Site. The most sensitive receptors are within 500 m radius of the Site making the assessment conservative for other potential receptors located further away (up to 1 km). Receptors are considered sensitive where people have the potential to be adversely affected by the dust emissions. The nearest sensitive receptors to the Site are identified in drawing referenced Sensitive Receptor Plan drawing reference K0419.1.002.

The probability of exposure is determined by the distance of the receptor to the Site and the likelihood of the hazard reaching the receptor (e.g. frequency of prevailing wind in that direction). This stage of the assessment assumes that exposure has resulted from an uncontrolled emission i.e. without mitigation.

The distance of these receptors to the Site boundary, their direction relative to the Site and the frequency the wind blows in the direction of the receptor is detailed in Table 1 below. The sensitivity to dust of the individual receptor types identified in the third column of Table 1 is further detailed in Table 2.

**Table 1 – Potential Sensitive Receptors**

No.	Receptor Description	Receptor Type	Direction from Site	Distance from Site (m)	Frequency Downwind (%)
1	Protos Ince Marsh Recovery Park Industrial Estate Adjacent plots. Including Standardkessel Baumgarte GmbH, Ince Park Renewables, Ince Park Biomass Energy Plant, CF Fertilisers UK.	Industrial / Commercial / Road	NW to ESE	10	5.39 to 18.67
2	Ince Marshes/Goldfinch Meadow	Surface Water / Recreational / Footpath	WNW to E	10	6.99 to 18.67
3	Farmland	Industrial / Commercial	NE to SE	220 to 535	2.52 to 10.09
4	Encirc Glass	Surface Water / Commercial / Industrial	S to WNW	230	1.36 to 10.04
5	Railway/Ince and Elton Train Station	Commercial / Recreational	SE to SW	630	1.35 to 2.52
6	Residential properties located off Orchard Park Lane/Ash Road	Residential / Recreational / Road	S to SW	750	1.36 to 2.47
7	Holme Farm/JH Willis & Son	Industrial / Commercial / Surface Water	NW	785	18.67
8	Manchester Ship Canal	Industrial / Commercial / Recreational / Surface Water	N to NNE	795	7.09 to 7.8
9	Waste Water Pumping Station	Industrial / Commercial	SSW	880	2.47
10	Mersey Estuary (Ramsar/SSSI/SPA)	Surface Water and sensitive habitat	N	880	7.09
11	Hoolpool Gutter	Surface Water	ENE to E	980	6.99 to 10.09
12	Surface water drainage network – Protos SWMP	Surface Water and sensitive habitats	E, N and S	10	1.36 to 7.09
13	Protos Habitat Mitigation Scheme	Sensitive habitats	W to E	100	2.22 to 18.67
14	On-site priority habitat – Woodland Management Plan	Sensitive Habitat	On-site – N	On-site	7.09
15	Marsh Lane	Road	NE to W	10	1.36 to 10.09
16	Ash Road	Road	SW	100	1.89
17	Residential Properties off Station Road / Ince Orchards	Residential	SW	990	1.89

**Table 2 – Types of Receptors Sensitive to Dust**

Receptor Type	Sensitivity to Dust
Residential	High
Recreational	High
Commercial	Medium
Industrial	Low
Highway	Low
Habitat	Medium
Surface water	Low

### [3.1.1] Residential, recreational, industrial, commercial, and educational premises

The potential emissions from the Site are likely to have a similar impact on persons occupying residential, recreations, commercial or educational premises. Exposure of emissions to persons in industrial or commercial premises may be lower as they are more likely to be inside during the working day or they may be transient visitors to the premises. Close industrial activities are likely to generate significantly more emissions and the employees may be desensitised as a result.

The Site is located at Plot 13 of Protos Plastic Park part of the wider Protos Recovery Park which covers an area of approximately 54 hectares with various waste and energy industries occupying plots. Adjacent plots comprise a glass bottle manufacturing plant, resource recovery facility and biomass facility. The plastic park will comprise various plastic recycling and recovery facilities and a plastic to hydrogen facility.

### [3.1.2] Highways and footpaths

The transitory nature of highways means receptors using those locations will be exposed to potential emissions from the Site for shorter (albeit variable) periods of time than residences or businesses. Pedestrians will have longer and more direct exposure to emissions compared to vehicle users.

Marsh and Pool Lane run adjacent to the north and south boundary of the Site respectively and form the main access roads to the Resource Recovery Park.

## [3.2] Meteorological Conditions

The principal mechanism for the transit of dust emissions from site operations to adjacent sensitive receptors is via ambient air. The distance and direction that these emissions will be carried is determined by the following factors:

- Source Related Pathways
- Meteorological Conditions; and
- Topography

### [3.2.1] Wind Direction

The prevailing wind direction will determine which receptors will be affected and at what frequency. The main controlling factor in determining the pathway of dust is the ambient meteorological conditions. This is fundamental to the transportation of dust to sensitive receptors.

### [3.2.2] Wind Velocity

Wind velocity will affect the distance dust emission will travel. Those receptors closest to the Site are still at the highest risk of a potential negative impact. Meteorological data from Ince<sup>2</sup> is expected to provide representative meteorological data for the area. The Windrose reproduced as Figure 1 indicates a prevailing wind direction from the south-east. The percentage the wind blows from each direction is presented in Table 3 below, noting that waste handling activities are located within buildings thus minimising any impact from meteorological conditions.

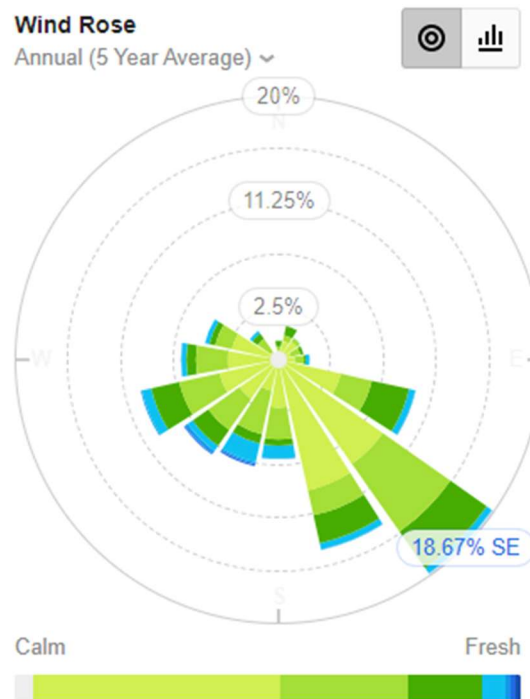
---

<sup>2</sup> <https://wind.willyweather.co.uk/nw/cheshire/ince.html>

**Table 3 – Wind Direction Data Ince (5-year average)**

Wind direction	5-year average percentage	Wind direction	5-year average percentage
North	1.36%	South	7.09%
North-northeast	2.47%	South-southwest	7.80%
Northeast	1.89%	Southwest	8.27%
East-northeast	1.83%	West-southwest	10.09%
East	2.22%	West	6.99%
East south-east	10.04%	West-northwest	5.39%
Southeast	18.67%	Northwest	2.52%
South-southeast	13.90%	North northwest	0.00%

**Figure 1 – Windrose from Ince**



**[3.2.3] Air Temperature**

Warm dry weather will encourage the drying of surfaces and therefore increase dust potential, although all activities are located within buildings thus minimising any impact from meteorological conditions.

**[3.2.4] Adverse Weather Conditions**

Unusual weather conditions may also increase the risk of emissions from the site. Site staff will be vigilant to unusual trends in the meteorological data or forecasts which may indicate strong winds or extremes of temperature which may cause a potential problem. The types of weather conditions that may impact on the generation of emissions and appropriate contingency actions are detailed in section 6.5 below, noting that waste handling activities are located within buildings thus minimising any impact from meteorological conditions.

---

## **[4] Dust and Emissions Risk Assessment**

### **[4.1] Site Dust Emissions**

The risk to each receptor as identified in Section 3 from dust potentially generated is presented in Table 4. This table evaluates the unmitigated risk to sensitive receptors from uncontrolled dust emissions and the control measures to be implemented to minimise and mitigate this risk, producing a revised residual risk to receptors.

A low residual risk is detailed for all potential receptors based on the appropriate risk management measures adopted.

**Table 4 Dust Risk Assessment and Management Plan**

Hazard / Pathway	Receptor				Probability of exposure	Unmitigated Consequence	Initial Risk / Reason	Risk Management	Mitigated Risk
	No.	Direc.	Dist. (m)	Freq.					
Dust through the Air from: Waste storage and PRF.	1	NW to ESE	10	5.39 to 18.67	High - close proximity to the site, frequently downwind	Medium - staff/users sensitive to dust.	Medium	<p>Strict waste acceptance procedures are in place to ensure that no non-conforming materials are accepted which may contain dusty wastes.</p> <p>Incoming vehicles carrying waste will be enclosed and remain so when not being inspected at the weighbridge or at the point of deposition.</p> <p>During dry and/or windy weather, if visual observations identify that vehicles are creating dust emissions, operations will altered until effective remedial actions have been undertaken or weather conditions improve.</p> <p>Visual observations by site staff and/or management of potential dust emissions take place throughout operational hours to ensure that any dust sources are identified and dealt with promptly.</p> <p>Regular housekeeping ensures that dust emissions created are well controlled and kept to a minimum.</p> <p>Plastic bales will be stored within a separate building (feedstock store) with storage times limited to 14 days prior to treatment.</p> <p>All waste storage and treatment will be undertaken within enclosed buildings with the access doors remaining shut pending entry and exit for pedestrian and/or vehicular access.</p>	Very Low
	2	WNW to E	10	6.99 to 18.67	High - close proximity to the site, frequently downwind	Medium - users sensitive to dust. Surface water not sensitive to dust.	Medium		
	3	NE to SE	220 to 535	2.52 to 10.09	High - moderate proximity to the site, frequently downwind	Medium - staff/users sensitive to dust.	Medium		
	4	S to WNW	230	1.36 to 10.04	High - moderate proximity to the site, frequently downwind	Medium - staff/users sensitive to dust. Surface water not sensitive to dust.	Medium		
	5	SE to SW	630	1.35 to 2.52	Low - distant from the site, infrequently downwind	Medium - staff/users sensitive to dust.	Low		
	6	S to SW	750	1.36 to 2.47	Low - distant from the site, infrequently downwind	High - Dust nuisance to residents	Medium		
	7	NW	785	18.67	Medium - distant from the site, frequently downwind.	Medium - staff/users sensitive to dust. Surface water not sensitive to dust.	Medium		
	8	N to NNE	795	7.09 to 7.8	Medium - distant from the site, moderately downwind	Medium - users sensitive to dust. Surface water not sensitive to dust.	Medium		
	9	SSW	880	2.47	Low - distant from site, infrequently downwind	Medium - staff sensitive to dust.	Low		
	10	N	880	7.09	Low - distant from the site, moderately downwind	Low - not a nuisance to habitats	Low		
	11	ENE to E	980	6.99 to 10.09	Medium - distant from site, frequently downwind	Low - surface water not sensitive to dust	Low		
	12	E, N and S	10	1.36 to 7.09	Medium - close proximity to the site, moderately downwind	Medium - surface water and habitats not sensitive to dust	Medium		
	13	W to E	100	2.22 to 18.67	High - close proximity to the site, frequently downwind	Medium - nuisance to this habitat	Medium		
	14	On-site – N	On-site	7.09	High - close proximity to the site, moderately downwind	Low - not a nuisance to this type of habitat	Medium		

Hazard / Pathway	Receptor				Probability of exposure	Unmitigated Consequence	Initial Risk / Reason	Risk Management	Mitigated Risk
	No.	Direc.	Dist. (m)	Freq.					
	15	NE to W	10	1.36 to 10.09	High - close proximity to the site, frequently downwind	Medium - users sensitive to dust.	Medium	Regular monitoring will be conducted and will take account of meteorological conditions and potential impacts of dust (however unlikely) on receptors	
	16	SW	100	1.89	Medium - close proximity to the site, infrequently downwind	Medium - users sensitive to dust.	Medium		
	17	SW	990	1.89	Low - distant from site, infrequently downwind	High - dust nuisance to residents	Medium		

## **[5] Control measures and process monitoring**

### **[5.1] Waste Pre-Acceptance and Acceptance**

The Technical Standards Report (Document referenced: K0419-AYE-R-ENV-00003) details the waste acceptance procedures. Strict waste acceptance procedures are in place to ensure that no non-conforming materials are accepted which may contain dusty waste not suited for treatment at the facility.

#### **[5.1.1] Waste Acceptance**

Strict waste acceptance and rejection procedures ensure that no non-conforming waste is accepted on site. All waste is accepted via the weighbridge. All wastes are weighed on arrival and duty of care documentation is inspected. Vehicles delivery the baled plastic will be instructed to turn off engines when stationary, all vehicles will comply with appropriate emission standards for road going vehicles, expected to be predominantly Euro 6.

Vigilance will be exercised to ensure waste accepted is suitable, if a more careful inspection of the load would be required. In such an instance the vehicle shall be directed to the designated quarantine area, where the driver shall uncover their load to allow for inspection. All inspections shall be conducted by trained and competent staff adhering to site specific procedures and risk assessments.

If the load is found to contain non-conforming waste the Production and Quality Manager shall decide whether non-conforming waste can be removed without posing a risk to health and safety of staff and visitors and can be readily and safely separated. If this is the case, the portion of non-conforming waste shall be segregated from the load, and the remainder of the load shall be processed.

All duty of care documentation is assessed and is to be stored electronically.

If any dusty wastes are identified during the waste acceptance process the Site Manager will be notified and the waste load will be segregated in the quarantine area for a maximum of 24 hours or immediate rejected. The rejection procedure for waste is detailed in Waste Acceptance Procedures (WAP) in the Environmental Management System (EMS).

#### **[5.1.2] Waste handling and storage**

The plastic bales accepted at the Site after weighing are unloaded by electric powered forklift truck to feedstock store comprising a purpose-built enclosed building.

The plastic bales would then be transferred by electric powered forklift truck to the PRF Building for processing.

Bales will be processed based on operational requirements and will be stored no longer than 14 days. Processing plant is powered by electricity.

### **[5.2] PRF Building Controls**

The plastic recycling process will be undertaken in a fully enclosed building with dust abatement system. The building will have roller shutter doors to allow delivery of waste and the export of waste materials. The vehicular access doors will be closed when not in use.

Localised air extraction is to be installed within the PRF building to contain and abate fugitive emissions of dust. Processes that have the potential to create dust therefore are to be contained and

extracted via designated air extraction systems. Local Exhaust Ventilation (LEV) systems are to be installed. The proposed design comprises LEV1 serving the mechanical dust generation points of the shredder and sorting plant, and LEV2 a second system which includes the rPET melt and evaporate from the screen changer process areas. The extracted air will be drawn into a centralised ducting system and passed through a baghouse filter system prior to discharge to atmosphere. Both systems would minimise the emission of dust and particulates. There would also be two flues from the natural gas boilers used to heat the process water. The enclosed buildings are also ventilated to provide a safe working environment.

A daily inspection of all recycling plant will be undertaken to ensure the plant is operating as designed. The recycling plant will be subject to a routine maintenance programme.

As stated previously all waste storage and treatment is to be undertaken within an enclosed building with an air extraction system.

### **[5.3] Housekeeping Practices**

The PRF building will be subject to regular housekeeping and cleaning of waste storage and treatment areas. Cleaning will be undertaken as necessary if identified during daily inspections to prevent the build-up of any waste residues.

Scheduled cleaning is done periodically, including vacuuming dusts, litter picking, sweeping, and general tidying. The importance of housekeeping is communicated to all employees / contractors prior to starting work. Routine weekly site safety walks are done by each departmental manager, who will monitor and check housekeeping standards and report any defects. Records of Planned Preventative Management (PPM) and safety walks are retained on Site. Jet wash facilities will be available if necessary for cleaning of waste storage / treatment areas.

The housekeeping practices to be utilised will minimise fugitive release or vehicles tracking any material outside of the PRF building.

### **[5.4] Drainage**

There are no direct releases off-site other than via the engineered surface water management system or from the WwTP.

The site surface will comprise impermeable concrete hardstanding with sealed drainage and will be kerbed. Externally all surface water will be drained via appropriate falls in the site surfacing and collected in a sealed drainage system. Surface water will pass through via silt chambers designed to capture sediment and other pollutants and finally through a Full Retention Separator prior to discharge off-site. Isolating chambers and penstock valves will be in place to enable the surface water system to be isolated in the event of a pollution incident or fire. Surface water will be discharged into the surface water ditch which runs around the north, east and southern boundary of the Site. This ditch is part of the larger drainage network developed by Protos as part of the Ince Resource Recovery Park. The drainage ditches form part of a network of main rivers and ordinary watercourses that form part of the Ince Marshes catchment and are drained by the Environment Agency (Agency) operated surface water pumping station to the north of the site. The water in the drainage ditches eventually flow into the Mersey Estuary.

All drainage infrastructures will be inspected, maintained and repaired as necessary. In the highly unlikely event that dust should become an issue as a result of the on-site drainage system and/or the WwTP, a full review of the infrastructure will be conducted and cleaning and inspection frequencies adjusted accordingly.

## [6] Dust Reporting

### [6.1] Overview

Prevention will be viewed as the most effective means of controlling dust before an impact occurs. The Source → Pathway → Receptor model determined above allows for the identification of the critical control points where emissions can arise, how it can travel to a receptor and the likely impact.

The performance of any dust and emissions management system will ultimately be judged by the impact of the site on the receptors. Should complaints be received, a procedure will be in place to effectively deal with the issue in a sensitive, efficient and auditable manner.

The controls are detailed in previous sections of this report. The management of those controls will be based on the on-going monitoring regime on Site. The monitoring regime can work as an early warning system against potential problems (e.g. meteorological monitoring) or a diagnostic tool to establish the cause of a dust emission event (e.g. perimeter monitoring).

### [6.2] Complaints reporting

#### [6.2.1] Complaints procedure

Any complaints received at the Site or via the Regulatory bodies including the Agency and Local Authority, will be recorded using the Compliant Report Form contained in the Site Management System. This will instigate further monitoring at the location of the complaint and on site to determine the extent of the dust. Where possible, as much information and detail about the complaint will be recorded, whether this is from the relevant authority or complaint direct to site. This information will assist in the investigation and determining the source of the dust e.g. differentiating between potential dust from the activity or other unrelated activities

All complaints and queries will be logged in accordance with the management system as soon as is practicably possible. All complaints logged will be subject to investigation and complainants responded to within 48 hours of receipt, where possible.

In the event that a substantiated dust complaint is received arising from the site, additional monitoring will be undertaken at the nearest sensitive receptors and where necessary, this DEMP will be reviewed and updated

Complaints regarding dust will be investigated in accordance with the protocol, and appropriate records maintained which may include:

- Complaints received including name and contact details of complainant (if known), and complainants' description of the dust;
- Nature of problem including date, time, duration, prevailing weather conditions and cause of the problem;
- On-site activities and operational conditions at the time of the complaint;
- The likely source of the dust, even if it is clearly not from the Site; and,
- Details on the corrective action taken and any subsequent changes to monitoring and operational procedures

The Agency will be informed of the complaint and Enviroo will confirm to the best of its knowledge the information described above.

Enviroo will ensure that the complainant has all the relevant contact details of the site (i.e. the Site Manager) and the officer responsible at the Agency. Enviroo will be in regular contact with the complainant and the Agency whilst the cause of the dust is being investigated and remediated.

An evaluation of the effectiveness of the techniques used will be carried out on completion of any remedial measures or if the complaints persist. Records of the above will be retained for future reference.

### [6.2.2] Complaints Investigation

As part of each dust complaint received, these will be objectively assessed against the wider environment to ensure that the source of the emission is traced back to the correct source. As discussed earlier in this DEMP, it is essential that the source is correctly identified in order that mitigating measures can be applied effectively and correctly. The complaint will also be assessed against previous records to place the nature of the complaint into context.

### [6.3] Community engagement

The Site will be readily contactable to outside organisations and to members of the public. A signage board (placed in a readily visible location) will contain the necessary contact details for both the Site operations and Agency. The company website also contains the necessary contact details.

Any complaints received directly to Site will be notified to the Agency. Should an off-site issue arise, therefore, the complainant has a readily available means of getting in touch with Enviroo.

### [6.4] Monitoring

#### [6.4.1] Off-Site Dust

The General Manager will be responsible for ensuring that regular visual inspections are made of the operations and the site's perimeter to identify any sources of dust and to establish whether any dust has left the Site. This will include dust arising from vehicles arriving at site and from the contained building.

A dust assessment will be completed and recorded during the site walkover checks and all site personnel will be responsible for reporting dust problems as soon as practicable to the Site Manager or the next level of management if the manager is not available

The following locations will be targeted for dust monitoring by the site staff:

- Weighbridge (continuous monitoring of vehicles);
- Feedstock store.
- PRF Building.
- WwTP
- Subject to prevailing wind direction (i.e. up and down wind), appropriate areas of the site perimeter.

In the event that dust is reported to be excessive and / or dust is observed leaving the site boundary, the Site Manager will be contacted (if not directly involved in the observations) and will authorise remedial measures to be taken.

The following information will be recorded during each round of monitoring:

- Name of assessor and position at facility e.g. weighbridge clerk;
- Nature of any problem identified including location, source, date, time, duration, prevailing weather conditions and likely cause;
- On-site activities and operational condition at the time of the monitoring visit (this should include any of the abnormal events detailed in Section 6.6);
- Records of the likely source of any dust, even if it is not from the Site;
- Details on the corrective action taken, realistic timeframes for remedial works and any subsequent changes to monitoring and operational procedures.

#### [6.4.2] PM<sub>10</sub> Monitoring

Consideration has been given to the possible requirement for PM<sub>10</sub> monitoring at the site. The activities on site, carried out within a contained building, will be unlikely to produce significant volumes of dust even without the implementation of the control measures.

The site is not located within a PM<sub>10</sub> Air Quality Management Area (AQMA) and therefore monitoring for PM<sub>10</sub> is not required. Visual dust inspections are however, undertaken daily with the observations recorded

An Air Emissions Risk Assessment (AERA) has been conducted and reported that the PM<sub>10</sub> particulate maximum predicted concentration at all modelled sensitive receptors was reported below 1% of the Air Quality Assessment Level. With the AQAL (40µg/m<sup>3</sup>) not exceeded at any of the receptor locations. Predicted short term impacts also indicate the AQAL of 50µg/m<sup>3</sup> was not exceeded.

### [6.5] Dust Investigation

#### [6.5.1] Dust investigation procedure

If excessive dust is found to be causing a nuisance and originating from the site's activities, as determined and confirmed by investigation into off-site complaints, or during routine visual monitoring. The following course of action shall be undertaken:

- Identification of source of dust during the monitoring visit or type of dust identified in a complaint.
- On-site activities and operational condition at the time of the monitoring visit or complaint (this should include any abnormal events, quarantined waste loads for example).

- Nature of any problem identified including location / source, date, time, duration, prevailing weather conditions and likely cause.
- If dust continues to cause nuisance the activities will temporarily cease until actions can be undertaken and effective controls are in place.

### [6.5.2] Corrective Actions

Corrective actions may require the adoption of additional control measures at the PRF.

Corrective actions may comprise but are not limited to the following:

- Additional dust monitoring
- Review of all processes
- Review of dust control measures
- Review of integrated ventilation and dust suppression system

## [6.6] Abnormal Events and Contingency Procedures

### [6.6.1] Strong Winds

The feedstock store and PRF building provide a physical barrier against strong winds and transmission of dust. Daily visual inspection of the site infrastructure will be undertaken and recorded. Additional inspection for damage resulting from high wind events will also be undertaken and appropriate contingency actions undertaken including removal of waste from feedstock store or PRF Building until repairs can be undertaken. The PRF is to be located within a wider plastics park which will be able to potentially accept diverted waste streams where possible in the event site operations are required to be temporarily suspended or cease.

### [6.6.2] Hot Conditions

The dryer the waste the greater the potential to generate dust therefore an increase in ambient air temperature may result in increased dust emissions. The buildings will be ventilated to reduce building temperatures. The air extraction system in the PRF building will limit the potential dust from the building.

### [6.6.3] Unscheduled unavailability

Unscheduled unavailability should only take place due to unscheduled maintenance, emergency situations and for Health and Safety reasons such as a fire at the site. In such cases the site operative will initially inform the General Manager who will in turn inform the COO and the Agency. Enviroo will implement measures to store or divert waste streams as necessary. The PRF is to be located within a wider plastics park which will be able to potentially accept diverted waste streams where possible in the event site operations are required to be temporarily suspended or cease.

## [6.7] Records and Review

Records relating to the management and monitoring of dust will be maintained as necessary and will include the following details:

- The results of inspections and visual monitoring carried out by installation personnel;

- Weather conditions including atmospheric pressure, wind speed and wind direction;
- Date, time, duration, prevailing weather conditions and cause of dust emissions;
- Complaints received including name and address of the complainant; and
- Details of the corrective action taken, and any subsequent changes to operational Procedures.

This DEMP will be reviewed on a periodic basis with the scheduled review of the site's EMS or with every major decrease, or alteration to the dust generated at Site (i.e. a change to dust source term, pathway or receptor).



# Appendix A – Daily Record Log

## Daily Site Inspection Report

**SITE:** \_\_\_\_\_

**WEEK COMMENCING:** \_\_\_\_\_

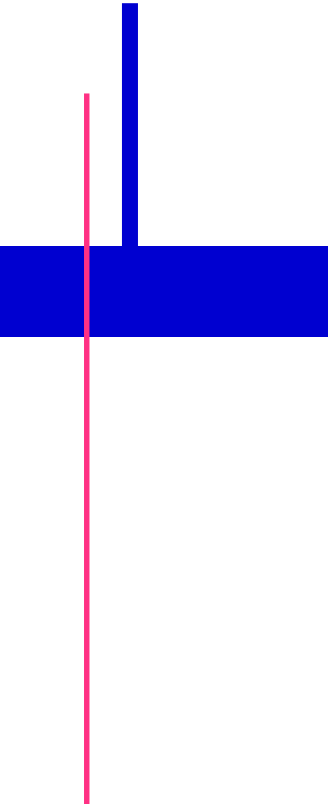
ITEM NO.	ITEM DESCRIPTION.	SUN	MON	TUE	WED	THUR	FRI	SAT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

**COMMENTS BELOW (Please insert number)**

NO.	DATE	COMMENT

**INSPECTED BY:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**CHECKED BY:** \_\_\_\_\_ **DATE:** \_\_\_\_\_



# Appendix B- Complaints Form

<b>Details</b>	
<b>Name</b>	
<b>Address</b>	
<b>Postcode</b>	
<b>Contact Details</b>	
<b>Tel</b>	
<b>Email</b>	
<b>Date</b>	
<b>Complaint Ref Number</b>	
<b>Complaint Details</b>	
<b>Investigation Details</b>	
<b>Investigation carried out by</b>	
<b>Position</b>	
<b>Date &amp; Time investigation carried out</b>	
<b>Weather conditions</b>	
<b>Wind direction and speed</b>	
<b>Investigation findings</b>	
<b>Feedback given to Environment Agency and / or local authority</b>	
<b>Date feedback given</b>	
<b>Feedback given to public</b>	
<b>Date feedback given</b>	
<b>Review and Improve</b>	
<b>Improvements needed to prevent a reoccurrence</b>	
<b>Proposed date for completion of the improvements</b>	
<b>Actual date for completion</b>	
<b>If different insert reason for delay</b>	
<b>Does the dust and emissions management plan need to be updated</b>	
<b>Date that the dust and emissions management plan was updated</b>	
<b>Closure</b>	
<b>Site Manager review date</b>	
<b>Site Manager signature to confirm no further action required</b>	