

Dust Management Plan Battlefield Plastics Recycling Facility

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Version History

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Veolia ES (UK) Limited

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1 Introduction

The facility is located on Battlefield Way, Shrewsbury.

The Battlefield Plastics Recycling Facility (PRF) is designed to accept up to 200,000 tonnes per year of non-hazardous waste plastics primarily in bale form from Material Recycling Facilities (MRF) for further processing for recovery.

The plans provided at Appendix 8 show the general arrangement of the site and the nearest receptors.

All waste will be loaded, unloaded, stored and treated within the enclosed building with fast acting doors located on an impermeable concrete base. The exception to this is the storage of a 30m³ ferrous metal skip stored on the outside of the building and the loading of some bags of washed flake directly onto a vehicle whilst positioned on the weighbridge.

Input wastes will consist of baled plastics collected for recycling, and will be deposited in one of 8 bays within the transfer building, waste will be transferred or treated on a first in first out basis in order to reduce the potential for heat build up and odour emissions.

1.1 Sensitive Receptors

A drawing showing the location of sensitive receptors and a windrose showing the average wind direction and strength are included at Appendix A.

Table 1.1 Location of potentially sensitive human receptors

Rece	eptor	Receptor sensitivity	Receptor Type	Approximate distance to the site (m)
R1	Veterinary Practice	Medium	Commercial	100m
R2	Retail/leisure park	Medium	Retail/leisure	200m
R3	Industrial Park	Medium	Industrial	200m
R4	Freshfields and surrounding housing estate	High	Residential	300m
R5	Greenacres Primary School	High	Educational	400m

In addition, consideration has been given to the surrounding commercial and industrial uses on the surrounding industrial/commercial estate (which are conservatively considered to be of medium sensitivity) and the likely public exposure on local footpaths.

2 Operations at Battlefield PRF

2.1 Waste Deliveries to the Site

Waste is delivered to site using the local road infrastructure and access road to site. Vehicle types will be almost exclusively curtain sided articulated trailers.

All waste delivery vehicles will be weighed and recorded using the on site weighbridge system.

With the exception of the loading of some washed flake bags all vehicles will be loaded and unloaded within the enclosed building.

It is not expected that the input wastes will pose a significant risk of dust emission. Battlefield PRF will not be accepting any waste of any EWC code that is considered particularly dusty. If any loads are identified as potential for being dusty during the unloading process are to stop as soon as identified. If, following assessment, it is identified that the load is too dusty, the load will be rejected.

The site layout showing potential dust emission and storage areas is included at Appendix A.

If any loads are identified as potentially dusty during unloading i.e. due to emissions as the process is carried out, further unloading of the vehicle will be ceased. If, following assessment, it is deemed that the load is too dusty to be processed without causing pollution, the load will be rejected and/or transferred off site without processing. Assessment of the load as unsuitable for processing will be based on training, operational experience and knowledge of plant capability and performance across a range of inputs. In the event of an unacceptably dusty load being delivered an investigation will be carried out with the customer/producer to prevent further unacceptably dusty dusty dusty dusty deliveries.

2.2 Waste Processing

On arrival the bales are broken before being fed under a conveyor with a magnet to remove metals, the plastics then undergo manual picking followed by a series of processes including granulation, drying, density separation, metal separation, caustic washing, friction washing, sink/float separation, drying, density separation, optical colour separation and finally extrusion and separation. Process stages where there is potential for particulates to be released, such as dryers, are enclosed / contained under negative pressure and particulate emissions are captured by a network of cyclones and extracted through a bag filter designed to emit <5mg/m3 of particulates.

2.3 Storage Areas

Appendix A Drawing VES_TD_SHRPETNEW_200_005 shows the waste storage areas. During operations the fast acting doors of the building will remain closed apart from access/egress to the building. The facility does not accept inherently dusty wastes and the potential for dust pollution from the storage and processing activity is therefore low. While the site is not operational the doors remain closed to ensure no emissions of dust occurs while the site is unattended.

All areas for the storage and loading of waste are surfaced with impermeable concrete. The operational area will be cleaned when there is a build up of dust/debris to clear dust deposition that could be resuspended.

2.4 Mobile Plant & Equipment

All mobile plant used on site are power by Liquid Petroleum Gas giving minimal dust/particulate emissions.

3 Dust and Particulate Management

3.1 Responsibility for Implementation of the DEMP

The following managers are responsible for the DEMP at Battlefield PRF Facility:

Manager	Job title / role
TBC	
ТВС	

Veolia also has a central support function including a team of Risk & Assurance Advisors who carry out periodic audits at sites across the group including written management plans.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

Source	Pathway	Type of impact	Where relationship can be interrupted	Receptor
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicl es when dry	Visual soiling, also consequent resuspension as airborne particulates	Design of the site and waste types handled are unlikely to be a source of mud. Remove mud before vehicles leave the site.	R1, R2, R3
Debris	falling off lorries	Visual soiling, also consequent resuspension as airborne particulates	Waste arrives in baled form within a curtain sided trailer	R1, R2, R3
Loading and unloading of waste inputs/outputs	Atmospheric dispersion	Visual soiling and airborne particulates	All deliveries unloaded within the building with the exception of ferrous metal and some bagged flake that are not	All

Table 3.1: Source-Pathway-Receptor Routes

			considered to have dust potential	
Vehicle exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Mobile plant is LPG powered, a no-idling policy is in place.	R1, R2, R3
Non road going machinery exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Mobile plant is LPG powered, a no-idling policy is in place.	R1, R2, R3
Mobile plant movement	Atmospheric dispersion	Airborne particulate	Mobile plant is LPG powered, a no-idling policy is in place.	R1, R2, R3

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

Abatement Measure	Description / Effect	Trigger for implementation					
Preventative Meas	Preventative Measures						
Pre acceptance Minimising the potential for dusty waste to arrive on site		Measures in place for all incoming waste.	Routine. Investigation carried out if waste arrives dustier than expected.				
Site Speed limit (10 mph), 'no idling' policy and minimisation of vehicleReducing vehicle movements and idling should reduce emissions from vehicles.vehicle movements on siteProcurement policy to only 		Site signs showing speed limit. Daily site inspections to check compliance. All mobile plant is LPG powered.	In use at all times during site operations				
Minimising drop heights for waste.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds.	Discharge belts to be positioned for minimal height from the floor.	In use at all times during site operations				
Good housekeeping	Having a consistent, routine housekeeping regime that is supported by management, will	Site operations staff to ensure good house keeping at all times. daily cleaning to take place.	In use at all times during site operations				

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	ensure the site is checked daily and issues remedied to prevent and remove dust and particulate build up.	Weekly washing of plant and bays. Annual deep clean.	
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Vast majority of waste arrives in curtain sided articulated trailers.	In use at all times during site operations
Hosing of vehicles on exit (As required)	May remove some dirt, dust and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.	If delivery vehicles become dusty from the discharged waste. Hose down the vehicle on the process pad to remove and debris.	Highly unlikely to be necessary.
Easy to clean concrete impermeable surfaces	All operation oncrete permeable rfaces Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.		In use at all times during site operations
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	Storage piles will be managed to a maximum of 3 bales or bags height.	In use at all times during site operations.
Remedial Measure	S		
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles.	Road sweepers to be used if the surface requires cleaning.	To be used as required. Site is monitored daily and request made to Admin Office for road sweeper ad hoc hire if required.
	Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface,		

	particularly at the kerbside. This may generate dust and particulate movement that may become a Health and Safety issue if the filters and spray bars on the sweepers are not maintained.		
Water suppression with hoses & water jets	Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.	Dynamic observation of the process area surface should be carried out. Dampen down with water as required.	Dynamic assessment. Use can be increased during dry weather. Unlikely to be an issue as all activities within an enclosed building.

3.3 Enclosure of Waste Processing & Storage Areas

The building is fully enclosed with fast acting doors ensuring the building is enclosed whenever practical.

3.4 Visual Dust Monitoring / Observations

Based on the pre-acceptance and other controls in place the potential for unacceptable dust emissions off site is considered to be low. Veolia will therefore undertake dust monitoring dynamically based on the following criteria:

- Observation by trained staff that dust pollution is or may be occurring
- Receipt of waste which is deemed to be dusty / potentially dusty but a decision is made that the material can be processed without causing pollution
- Any abnormal operation where there is considered to be a risk of dust pollution
- If notified a complaint is received externally
- If instructed to undertake a check by the Environment Agency
- Visual dust monitoring of the entire site is carried out continuously throughout the working day and recorded on the daily site inspection checklist, an example is included at Appendix B.

Ensuring staff are trained to undertake monitoring in this manner ensures that the reasons for making a decision to carry out monitoring are well understood and it minimises the exercise becoming purely administrative and therefore of little value / devalued over time.

3.5 On site and off site monitoring

Trained staff will determine what combination of on and off site dust monitoring is appropriate based on the following principles.

- Where on site checks identify pollution is or may be occurring off site checks should be carried out.
- Where an external complaint has been received both on and off site checks should be carried out.

Should the site be subject to regular complaints or as deemed appropriate by site management, routine periodic monitoring may be instigated.

If dust is identified the actions in section 5 should be completed identifying the root cause and implementing remedial measures.

3.6 Visual Dust Monitoring / Observations

A qualitative assessment of fugitive emissions has been undertaken; the assessment concludes that the impact of fugitive emissions at all receptor locations considered will be 'negligible' and the effect will be 'not significant'.

3.7 Unfavourable Conditions

Unfavourable conditions include events that cannot be reversed in the short term, they would include off site emissions of dust or breakdown of plant, equipment or other control measures that could give rise to significant dust emissions. Visual monitoring detecting unacceptable dust emission/buildup. Drought to the extent that water supply to the site is terminated.

In the event of unfavourable conditions the remedial actions would be many and varied to suit the conditions experiences, they could include but would not be limited to:

- Reduction of waste inputs;
- Reduction in operating hours;
- Hiring replacement/additional plant/equipment;

- Use of bowsers/tankers to replace/supplement mains water supply;
- Cessation of waste inputs/outputs;

4 Particulate Matter Monitoring

Given the nature of the wastes accepted, the type of operation and the controls in place as described above it is not considered that PM_{10} monitoring is necessary. Should PM_{10} particulates be an issue at the site a revised DEMP will be submitted including a detailed monitoring programme.

4.1 Visual Dust Monitoring

Daily off site perimeter inspections will take place to ensure dust emissions will not cause a nuisance.

Any visual signs of dust emissions leaving the site are to be reported to the responsible managers as shown in section 3.1.

5

Reporting and Complaints Response

5.1 Reporting of Complaints and exceedances

Following a complaint relating to dust from the site or following detection of unacceptable dust emission/buildup the following will apply:

- Investigate the complaint, source of emission or dust buildup. This would normally be carried out immediately the complaint is received by Veolia, as a minimum on the same working day.
- Complete all details on the Veolia AVA reporting/escalation system. All complaints/exceedances are automatically reported to senior management via the AVA system and operationally independent Environmental Team for investigation. Any complaints/exceedances not 'closed out' by the end of the month are further automatically escalated to Director level.
- Respond to complainant following investigation

5.2 Engagement with the Community

Community engagement is key to Veolia operations and local residents will be able to contact the site manager directly should they wish to discuss any concerns. The site manager or supervisor will visit any complainant to substantiate and discuss the issue. A record of any community engagement will be shared with the local EA officer.

5.3 Management Responsibilities

Site ID board displays contact details for site management and out of hours notification. Managers in section 3.1 are responsible for ensuring the compliance of the DEMP.

6 Summary

The Battlefield Plastics Recycling Facility is committed to continuously reduce levels of fugitive dust generated by our operations and is sensitive to the concerns of neighbouring businesses regarding the levels of dust experienced. The site will ensure systems that facilitate communication with the site neighbours are maintained.

- Dust is predominantly controlled at source by good operational practices and the correct use and maintenance of plant;
- All potential sources of dust likely to arise at the facility are identified;
- Both staff and people outside of the site are not exposed to levels of dust that would result in annoyance and health issues;
- All appropriate measures are taken to minimise dust from the facility that may be considered offensive at locations outside of the installation boundary; and
- The risk of dust related incidents are minimised by anticipating and planning the appropriate measures to control the dust accordingly.

7 Periodic Review

The DEMP will be reviewed updated as appropriate based on the following criteria:

- Annually
- Following an incident which resulted in actual or potential dust pollution.
- Following instruction by the Environment Agency under condition 3.2 of the environmental permit

Dust Complaint Form

Customer Details	
Customer Name -	
Address -	
Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and speed -	
Investigation findings -	

Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a recurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
If different insert reason for delay -	
Does the dust management plan need to be updated -	
Date that the dust management plan was updated -	
Closure	
Site manager review date	
Site manager signature to confirm no further action required	

8 Appendix A - Drawings

VES_TD_SHRPETNEW_200_ 005 - Layout VES_TD_SHRPETNEW_200_ 004 - Key Receptors

9 Appendix B - example Daily Site Inspection Checklist

	D	aily Si	te Inspe RUN TH	ection (Checkli	st		Q ₆
mandatory items s	Manda becified / a	tory for a dditional	II sites wi requireme	th an Envi ents to ref	ronmental lect local F	Permit – Permit coi	nditions t	o be included
SITE NAME:				WEEK 0	COMMENC	ING:		
MANDAT	ORY QUES	TIONS FO	OR ALL SI	TES WITH	AN ENVI	RONMENT	AL PERM	літ
QUESTION	MON	TUE	WED	THU	FRI	SAT	SUN	COMMENTS / ACTIONS
Are all areas of site clear & tidy, containers & waste stored in the correct places & spillages cleared?								
Are waste levels in line with your permit requirements, contained fully within bays or containers & not above or outside of push walls?								
Has all litter both inside & outside of the site boundary been cleared before the end of the working day?								
Are there any signs of excessive dust on site, if yes are dust control measures in place, please detail these?								
Are pest control measures in place & suitable, e.g bait boxes, fly bags & bird scarers? Are there any signs of pest issues?								
Are there any excessive <u>odours</u> on site, or can odours be detected beyond the site boundary?								
Have you conducted odour sniff tests?								



Daily Site Inspection Checklist

VEOLIA

RUN THE BUSINESS

MANDATORY QUESTIONS FOR ALL SITES WITH AN ENVIRONMENTAL PERMIT								
QUESTION	MON	TUE	WED	THU	FRI	SAT	SUN	COMMENTS / ACTIONS
Are there any noise issues on site?								
Are all perimeter fences in place around the entirety of the site & are intact, is CCTV working & in place where relevant?								
Are all surfaces free from cracks, potholes or damage?								
Are all drains & gullies free from litter & debris, so that liquid can freely flow?								
Is there any ponding water on site?								
Are all fuel tanks, oil storage & bunds, clear & free from liquids, hoses are stored within bunds & there are no leaks or spillages?								
Are all spill kits sufficiently stocked, in locations near high risk areas & suitable for the material they may need to contain?								
FIRE								
Are all internal and external fire doors clear / closed / operational?								
Are all emergency exit routes clear?								

Owner: Risk & Assurance

Date: 09/20 Ref: SYS/2/015/003

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	I	Daily Si	te Inspe RUN TH	EOLIA ection	Checkli	st		Ö .
SITE SPEC	FIC QUESTIC	NS LINKE	D TO LOC	AL PERN	IIT CONDI	TIONS (W	HERE RE	EQUIRED)
QUESTION	MON	TUE	WED	THU	FRI	SAT	SUN	COMMENTS / ACTIONS
	MON	TUE	WED	THU	FRI	SAT	SUN	
Inspection completed by (initial):								
Actions closed (Manager sign / date)								
Action added to AVA (AVA action ID)								
\checkmark - Satisfactory	X - Unsatisfactory				NI -	Not Inspe	cted	NA - Not Applicable
PLEA	SE PROVIDE	COMMEN	T IF NOT S	SATISFAC	TORY (Us	e separate	sheet as	required)

Owner: Risk & Assurance

Date: 09/20 Ref: SYS/2/015/003

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