

Dust Management Plan

Norwich RDF & Transfer Facility

Date: January 2024 Version: 1.0

Version History

Revision Number	Date of Issue	Status	Reason for revision
1.0			Bespoke Permit Application

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1 Introduction

The facility is located on Ernest Gage Avenue, Longwater near Norwich.

The Norwich Transfer Station is designed to accept up to 100,000 tonnes per year of non-hazardous waste primarily of commercial and industrial origin for recovery or disposal

(up to 50 tonnes per day) elsewhere, along with baling of card. The site is designed to produce baled Refuse Derived Fuel (RDF) or transfer waste without treatment, or a combination of the two activities.

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

With The exception of baled and wrapped RDF all waste will be loaded, unloaded, stored and treated within the enclosed transfer building with fast acting doors located on an impermeable concrete base connected to a sealed drainage system. Baled RDF will be stored either inside the building or in the external dedicated bay.

Input wastes will consist of residual wastes, food, glass and other mixed or single stream recyclates such as card, and will be deposited in one of 5 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	Magnolia	High	Residential	968m NW
R2	Tower Close	High	Residential	750m NE
R3	Colosus Way	High	Residential	393m S
R4	Norfolk Cement	Low	Industrial	Adjacent
R5	U Store	Medium	Commercial	100m W
R6	Aldi	Medium	Retail	150m SW
R7	Norfolk Canoes	Medium	Industrial	150m NW
R8	Morelli Group	Medium	Industrial	100m NW
R9	NEWS	Very Low	Waste Transfer Station	150m SE
R10	Biffa	Low	Waste depot	200m S

R11	Scott Timber	Low	Commercial	200m W
	Bannatynes Health Club	Medium	Recreational	250m W
R13	Cemex	Low	Industrial	200m N

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 Norwich RDF & Transfer Facility

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 include Articulated trailers, MCV and Roll on/ off type vehicles.

All containers will be sheeted/ covered to reduce dust emissions while in transit.

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

All customers are instructed to sheet/ cover all loads which are delivered to the site. If any loads are tipped on site which are identified as dusty, they will follow the procedure below.

All deliveries of waste will be tipped within the RDF/Transfer building.

Only wrapped RDF bales will be stored in the external bay.

Most of the waste list applied for by EWC code can be either dusty or not dusty or somewhere between. Norwich RDF 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 should 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 should 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 deliveries.

2.2 Waste Shredding

The shredding of residual industrial / commercial waste to produce RDF occurs entirely within the RDF building. Outside of operational hours the RDF building is fully enclosed with the doors closed.

The medium speed shredder may generate fines during processing, but measures are in place to minimise emissions outside the building envelope.

The shredder hopper is fitted with a spray bar to control dust emissions at the hopper loading stage.

2.3 Storage Areas

Appendix A Drawing VES_TD_NORW_400_016 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

Nitrogen Dioxide gas is a by-product of internal combustion engines and the site uses several items of plant with internal combustion engines. The following table lists the type, mobile and emission ratings for the mobile plant and equipment used on site:

Table 2.2 - Onsite mobile plant emission ratings

Description	Make	Model	Emission Rating
Loading Shovel	CAT	938	EU V
Loadall	LH Liebherr	LH22 grab	V
Clamp Truck	JCB	TLT35D	III B

All plant is maintained in accordance with the manufacturers maintenance and inspection specification. Servicing is carried out by recognised agents.

3 Dust and Particulate Management

3.1 Responsibility for Implementation of the DEMP

The following managers are responsible for the DEMP at Norwich RDF/Transfer Facility:

Manager	Job title / role
Terrie Consterdine	Business Manager
Steve Mortimer	Operations Manager

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

Table 3.1: Source-Pathway-Receptor Routes

Source	Pathway	Type of impact	Where relationship can be interrupted	Receptor
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Visual soiling, also consequent resuspension as airborne particulates	Waste types handled are unlikely to be a source of mud. Remove mud before vehicles leave site.	R5, R6, R7, R8, R11, R12
Debris	falling off lorries	Visual soiling, also consequent resuspension as airborne particulates	Cover loaded lorries before leaving the site. Requirement for all deliveries to be sheeted or netted if not in fully enclosed containers / vehicles.	R5, R6, R7, R8, R11, R12
Tipping, storage and sorting of wastes in the open	Atmospheric dispersion	Visual soiling and airborne particulates	All deliveries unloaded within the building or covered bays. Minimise source strength by means of low drop heights.	All
Vehicle exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Building maintained under negative pressure using an air extraction system with activated carbon filter.	R5, R6, R7, R8, R11, R12
Non road going machinery exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Building maintained under negative pressure using an air extraction system with activated carbon filter.	R5, R6, R7, R8, R11, R12
Medium speed shredder	Atmospheric dispersion	Airborne particulate	Break down of suppression unit	R5, R6, R7, R8, R11, R12

Mobile plant movement	Atmospheric dispersion	Airborne particulate	Ensure good housekeeping of the process area. Sweep the process area when there is a buildup of dust/debris.	All
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The Norwich RDF/Transfer facility is located in a predominantly industrial/commercial area providing other potential sources of dust generation. Other on site sources of potential dust emissions include

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

Abatement Measure	Description / Effect	Overall consideration and implementation	Trigger for implementation	
Preventative Measures				
Pre acceptance criteria	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 vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery.	Site signs showing speed limit. Daily site inspections to check compliance. Loading shovels have telemetry which reports idle time.	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 ensure the site is checked daily and issues remedied to prevent and remove dust and particulate build up.	Site operations staff to ensure good house keeping at all times. daily cleaning to take place. Weekly washing of plant and bays. Annual deep clean.	In use at all times during site operations	
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Customer/ hauliers notified of sheeting vehicle requirements	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.	Waste acceptance. If the vehicles become dusty e.g during dry periods.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Process areas are on a concrete impermeable surface.	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 reduce the pile height	In use at all times during site operations. Storage pile height - 4m
Remedial Measure	es		
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. 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	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.
	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.
Spray bar on shredder hopper	Installation of mist sprays around at shredder hopper.)	Mist sprays to be used when shredding.	Dynamic assessment. In use at all times during shreddings.

3.3 Enclosure of Waste Processing & Storage Areas

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

All waste will be stored at least 0.5m below the top of bay walls.

The site perimeter is secured with 2.4m high palisade fencing.

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;
- Cessation of shredding, transfer only;

- 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 Norwich RDF and Transfer 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

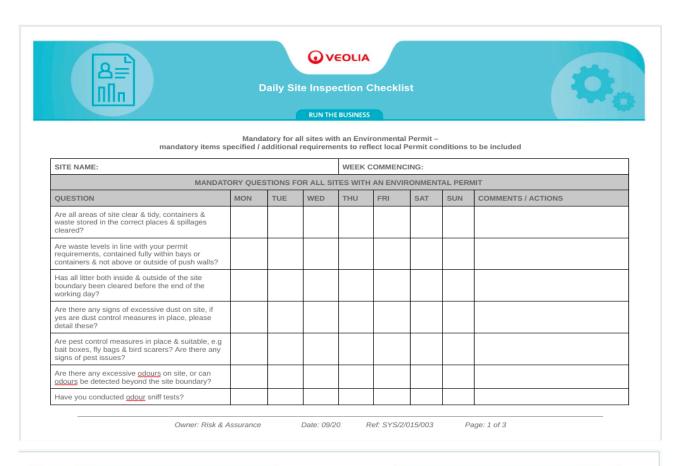
Customer Details	
Customer Name -	
Address -	
Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and 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_NORW_400_016 - RDF Layout VES_TD_NORW_400_018 - Key Receptors

9 Appendix B - example Daily Site Inspection Checklist







SITE SPECIFIC QUESTIONS LINKED TO LOCAL PERMIT CONDITIONS (WHERE REQUIRED)								
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)							

√ - Satisfactory	X - Unsatisfactory	NI - Not Inspected	NA - Not Applicable				
PLEASE PROVIDE COMMENT IF NOT SATISFACTORY (Use separate sheet as required)							

Owner: Risk & Assurance Date: 09/20 Ref: SYS/2/015/003 Page: 3 of 3

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