VEOLIA ES LTD

RUNCORN WOOD RECYCLING SITE

Percival Ln, Runcorn WA7 4DS

DUST & EMISSION MANAGEMENT PLAN (DEMP)

VERSION NUMBER: 1

DATE: 25/10/2019

Issue and Revision Record

Revision	Date	Originator	Checker	Company Approver	Description of Changes

1. Introduction

Runcorn Wood Recycling site operates a recovered wood processing facility at Percival Court, Percival Ln, Runcorn WA7 4DS . The facility accepts grades A to C wood waste; sorts and treats the material in preparation for dispatch to the end customer.

Runcorn Wood Recycling site recognises that operating a recovered wood processing facility can result in the generation of dust with the potential to impact on the local environment and community. This document describes Runcorn Wood Recycling site strategies for dust management and details and action plan for future operations. The site is located in a fairly secluded area surrounded by agricultural land. The site operations are typically 08:00 to 18:00 Mondays to Friday, but are subject to opening Saturdays or Sundays for operational demands.

The facility is located in the Runcorn district.

The site is located inside of the Air Quality Management Area.
http://uk-air.defra.gov.uk/aqma/

Although the facility may experience dust emissions. The infrastructure has been designed to reduce emissions and abatement controls in place.

This document has been written in relation to the Veolia business management system and as such will be subject to audit and or review.

1.1 Sensitive Receptors

Figure 1.1: Nearby Sensitive Receptors

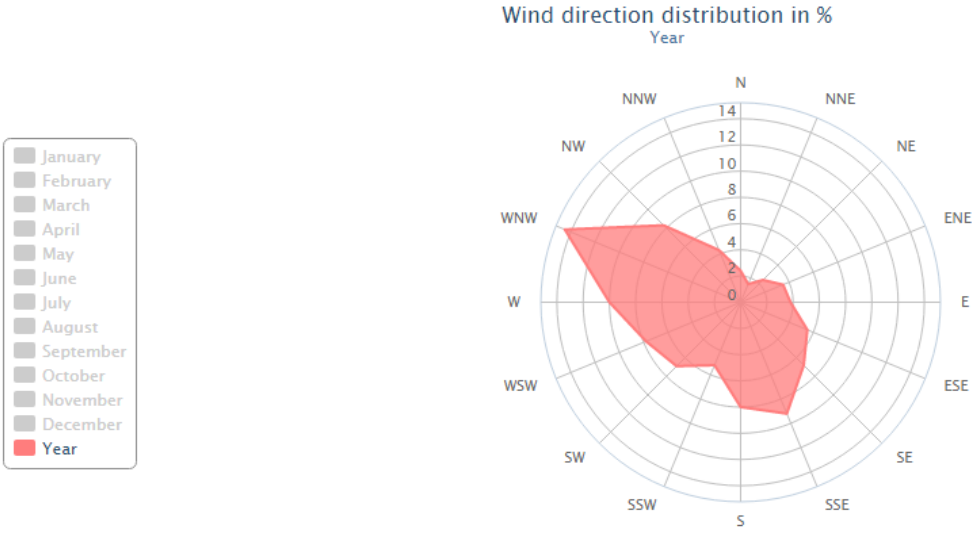

Figure 1.2: Wind rose showing the AVERAGE WIND DIRECTION AND STRENGTH

Key	Sensitive Receptors	Closest Receptors	Approx. Distance from Site	Direction in relation to site
1	Residential	Westfield Road	220m	E
2	Residential	Sandy Lane	650m	S
3	Commercial	Northgate Vehicle Hire, Engenda Group and Runcorn Football Club	265m	E
4	Commercial	Westpoint industrial estate	250m	S
5	Commercial	Runcorn Vehicle Recycling	160m	W
6	Commercial	Hansons Aggregate	240m	NNW
7	Commercial	Picow Rd Ind Estate	600m	NE
8	Commercial	Christ Point Weston Point	700m	NW
9	Commercial	Weston Point Community Primary School	800m	SSE

Table 1.1 Nearby sensitive receptors

2. Operations at Runcorn

2.1 Waste Deliveries to Runcorn

Waste is delivered to site using the local road infrastructure and access road to site. Vehicle types will include Articulated walking floor vehicles 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 will follow the procedure below.

Dusty loads - 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. If the load can be unloaded, but suspect dust emissions could cause a nuisance, then the mobile dust suppression unit should be located near the material being unloaded to control emissions.

Waste type	Emission control

Grade A to C waste wood	All vehicles will be sheeted or covered to remove dust emission while in transit.

Table 2.1 - Waste delivery vehicle dust control

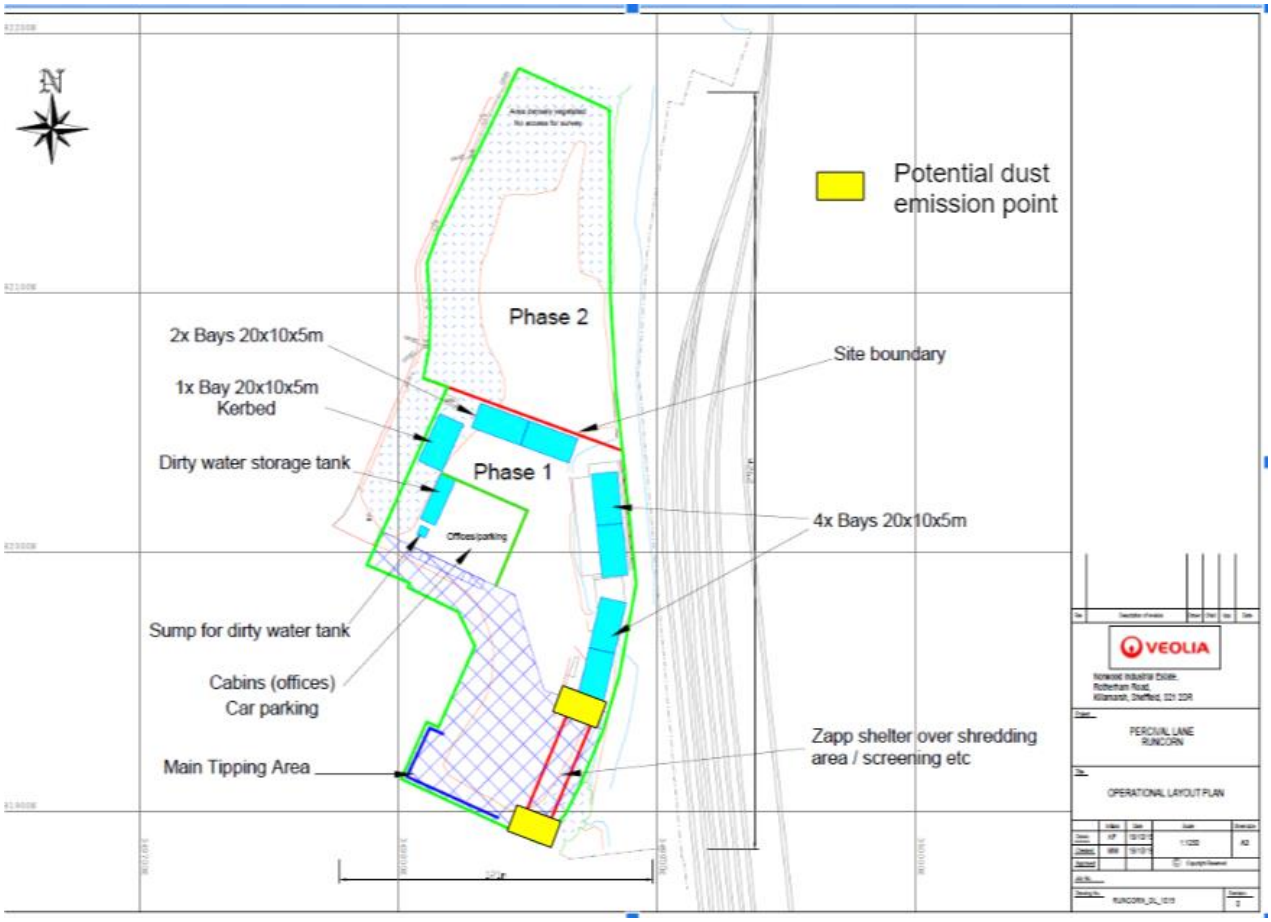

Figure 2.1 - Site layout showing potential dust emissions and storage areas

2.2 Overview of Waste Processing, Dust, and Other Emission Control

Key	Activity	Emission type	Control
1	Inlet of process area (Shred and screen)	Dust	Mobile Dust Suppression
2	Output of process area (Shred and screen)	Dust	Mobile Dust Suppression

Table 2.2 - Site locations of potential dust sources

Storage bunkers are shown in light blue (figure 2.1) and act as a weather protection and abatement control for dust.

The main process area is constructed with an impermeable concrete surface. The operational area will be cleaned regularly to control dust emissions.

Figure 2.2 - perimeter dust suppression system

The dust suppression system will be installed to stop dust emissions from the sheltered process area. This system has been installed with reference to the prevailing wind direction and provides abatement control if required.

Table 2.3 Typical waste types brought to Runcorn

European Waste Code(EWC)	Product Description	Tonnes/week	Destination within facility Ref - Figure 2.1
02 01 03	Wood and Bark only		
02 01 07	Wood and bark		
03 01 01	Waste bark and cork		
03 01 05	Sawdust, shavings, wood, particle board and veneer other than those mentioned in 03 01 04	20	Main tipping area
03 03 01	Waste bark and wood		
15 01 03	Wood Packaging		
17 02 01	Wood	80	Main tipping area
17 09 04	Mixed construction and demolition		
19 12 07	Wood other than mentioned in 19 12 06	400	Main tipping area
20 01 38	Wood other than mentioned in 20 01 37	400	Main tipping area
20 02 01	Biodegradable waste (wood and bark only)		
Total		900	

Table 2.4 - Waste types and destinations with in the facility

Waste delivery vehicles will access the site via the main access road and head to the weighbridge for initial weighing.

Once the vehicle has been correctly weighed in and accepted, the vehicle will head to Main tipping area (Figure 2.1) for waste tipping and further waste acceptance procedure.

When the delivery vehicle has completed tipping it will exit via the weighbridge and complete the weighing out process. The vehicle will exit via the access road.

The waste in main tipping area will be sorted and identified which shredding process is required. Grade C wood will be shred via the shredder and hand sorted via the trommel and picking station. The treated material will be stored in one of the blue storage bays.

Certain types of grade C wood will be suitable for biomass and therefore require slow speed shredding and then stored.

Any fines generated via the medium speed shredding will be stored in a Bay. The stock levels will be managed daily and dispatched to external disposal as required.

It is recognised that the medium speed shredder will generate fines from the process, but will be controlled and contained within the sheltered process area. Mobile dust suppression units will be located near the shredder to control dust emissions from leaving the shelter.

All storage bays have been designed to allow 1 meter free board and therefore control dust emissions from wind carrying any dust off site.

The picking station has been designed with a covered roof to control dust emissions.

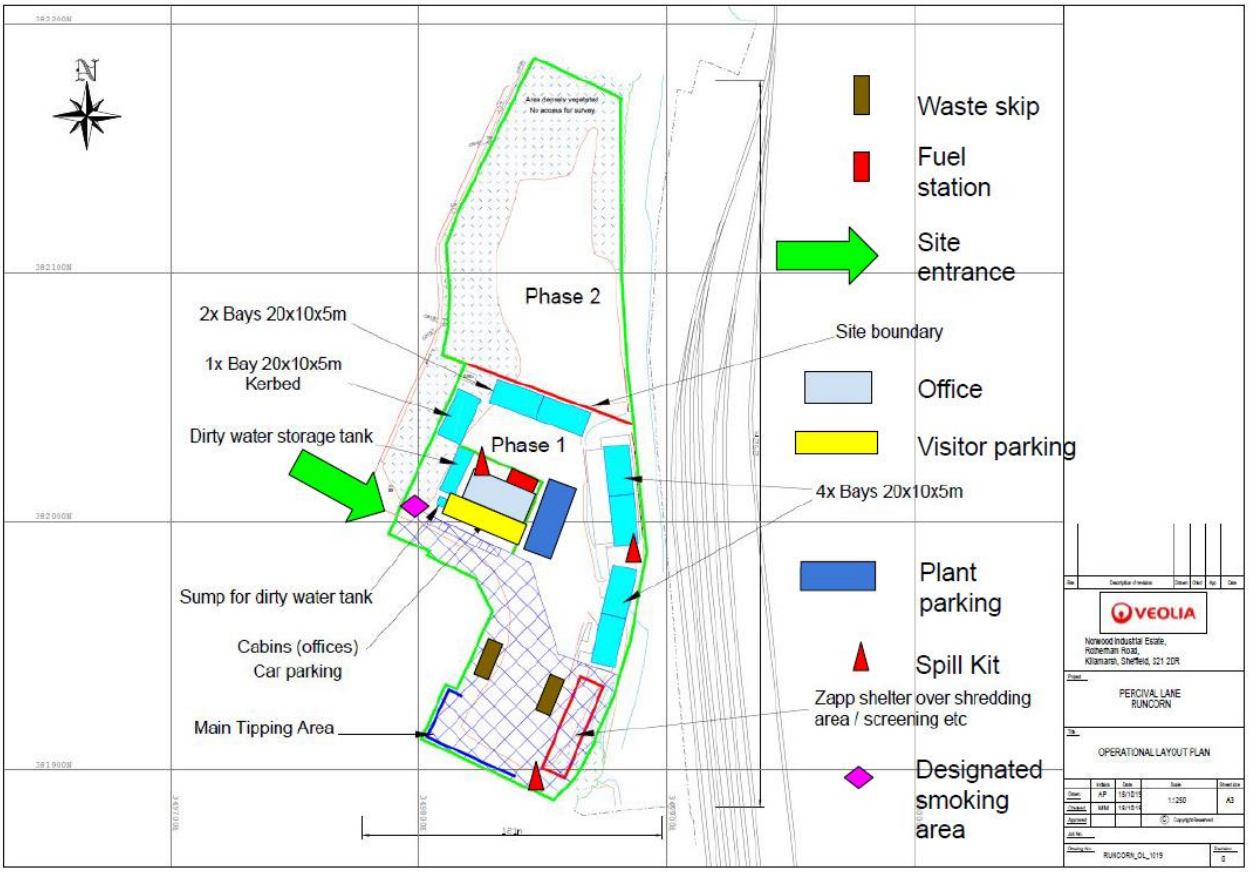

Figure 2.3: Site Layout Plan

2.3 Mobile Plant and 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:

Description	Make	Model	Emission Rating
Loading Shovel	Caterpillar	938	Tier 4
Loading shovel	Caterpillar	938	Tier 4

All plant is owned by Veolia and fall under an R&M agreement with Finnings/ Caterpillar for five years. The agreement fully follow the manufacturers specification and carried out by recognised agents.

3. Dust and Particulate (PM_{10}) Management

3.1 Responsibility for Implementation of the DEMP

The following managers are responsible for the DEMP at Runcorn:

Main - Malcolm Marshall - Area Business Manager
WAMITAB training, experience of waste management facilities in the region
Deputy - Carl Taylor - Operations Manager
WAMITAB training, experience of waste management facilities in the region

Annual reviews of the DEMP will take place. Veolia QHS officers will carry out reviews of the DEMP. QHS officers have experience of waste management facilitates and are Veolia recognised officers for waste site audits.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

Sources

Table 3.1: Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Table 1.1 - receptor 1 or 3	Visual soiling, also consequent resuspension as airborne particulates	Remove mud before vehicles leave site. Long haul road ensures residual mud drops off before vehicle reaches public highway but there then is a need for a road sweeper to be on site every day
Debris	falling off lorries	Table 1.1 - receptor 1 or 2	Visual soiling, also consequent resuspension as airborne particulates	Cover lorries before leaving site. Long haul road ensures residual mud drops off before vehicle reaches public highway but there then is a need for a road sweeper to be on site every day
Tipping, storage and sorting of wastes in the open	Atmospheric dispersion	Table 1.1 - receptor 1, 2 or 3	Visual soiling and airborne particulates	Minimise source strength by means of low drop heights, profiling and shielding of piles from wind whipping, positioning sources away from receptors.

				Also wetting of certain materials (not plasterboard)
Vehicle exhaust emissions	Atmospheric dispersion	Table 1.1 - receptor 1 or 3	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength
Non road going machinery exhaust emissions	Atmospheric dispersion	Table 1.1 - receptor 1 or 3	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength
Medium speed shredder	Atmospheric dispersion	Table 1.1 - receptor 1, 2 or 3	Airborne particulate	Break down of suppression unit
Storage piles	Atmospheric dispersion	Table 1.1 - receptor 1, 2 or 3	Airborne particulate	Pile management. Ensure the pile from discharge belts of shredders is maintained as low as possible by moving to the storage bays.
Mobile plant movements	Atmospheric dispersion	Table 1.1 - receptor 1, 2 or 3	Airborne particulate	Ensure good housekeeping of the process area. Sweep the process area daily to avoid build up.

Table 3.2: Measures that will be used on site to control dust/particulates (PM_{10}) and other emissions

Abatement Measure	Description / Effect	Overall consideration and implementation	Trigger for implementation
Preventative Measures			
Site / process layout in relation to receptors	Stopping shredding operations when the wind speed is greater than 10 MPH in an Easterly direction	Weather station installed to support decision making process with wind direction. Alerts set up to notify operators	Wind in an easterly direction
Site Speed limit, 'no idling' policy and minimisation	Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean	Site signs showing speed limit. Regular site inspections to check compliance.	In use at all times during site operations

of vehicle movements on site	burn road vehicles and non-road going mobile machinery.	Loading shovel have telemetry which reports idle time.	
Minimising drop heights for waste. Use of enclosed chutes for waste drops/end of conveyor transfers and covered skips / storage vessels.	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. Enclosing processes will further reduce dispersion.	Discharge belts to be positioned for minimal height from the floor.	In use at all times during site operations
Good house keeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure site is regularly checked 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.	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.
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	Weather station installed to notify operations staffs	In use at all times during site operations. Wind direction - Easterly and above 15 mph

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 outside of the bays will be managed to reduce the pile height	In use at all times during site operations. Storage pile height - 3m
Reduction in operations (waste throughput, vehicle size, operational hours)	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	Weather station installed to notify operations staffs	In use at all times during site operations. Wind direction - Easterly and above 15 mph
Remedial Measures			
Site perimeter netting / micro netting	Erecting netting around equipment that could give rise to large amounts of dust and particulates may be effective within the site boundary and prevent their dispersion off-site / their re-suspension within the site.	The site has earth bunds to the North East and West of the site to reduce wind flow across site	In use at all times during site operations.
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	Road sweepers to be used if the surface requires cleaning.	To be used as required. Monitored daily and reported to head office for road sweeper hire

	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.	Daily monitoring of the process area surface should be carried out. Dampen down with water as required.	Daily monitoring
Water suppression with mist sprays	Installation of mist sprays around sites and at shredding operations	Mist sprays to be used when shredding.	In use at all times during site operations.

3.3 Other considerations

Water usage/ availability:
The site has a mains water supply at a rate of 0.71l/s which will be used to fill the reservoirs of the mobile dust suppression units and keep a constant supply to the fire fighting water storage tank. The water level of the mobile units is checked throughout the day and topped up as required. The site has the benefit of a sealed tanks for the collection of runoff. The tanks are capable of holding up to 500,000lt . The tanks are fitted with level warning alarms and are emptied as required by road tanker.

In the event of a drought:
In the event of a drought additional water bowsers can be bought in to site and the onsite tank used for suppression.

3.4 Enclosure of Waste Processing & Storage Areas

The waste bays are designed to sufficient height to prevent and minimise dust release. All material is stored below a 1m threshold on the bay that is clearly delineated by a painted line. The equipment used is cowled and screened where possible to prevent unnecessary release of dust. The site location is in green belt and would unlikely be allowed to install permit building enclosures on site.

3.5 Visual Dust Monitoring

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

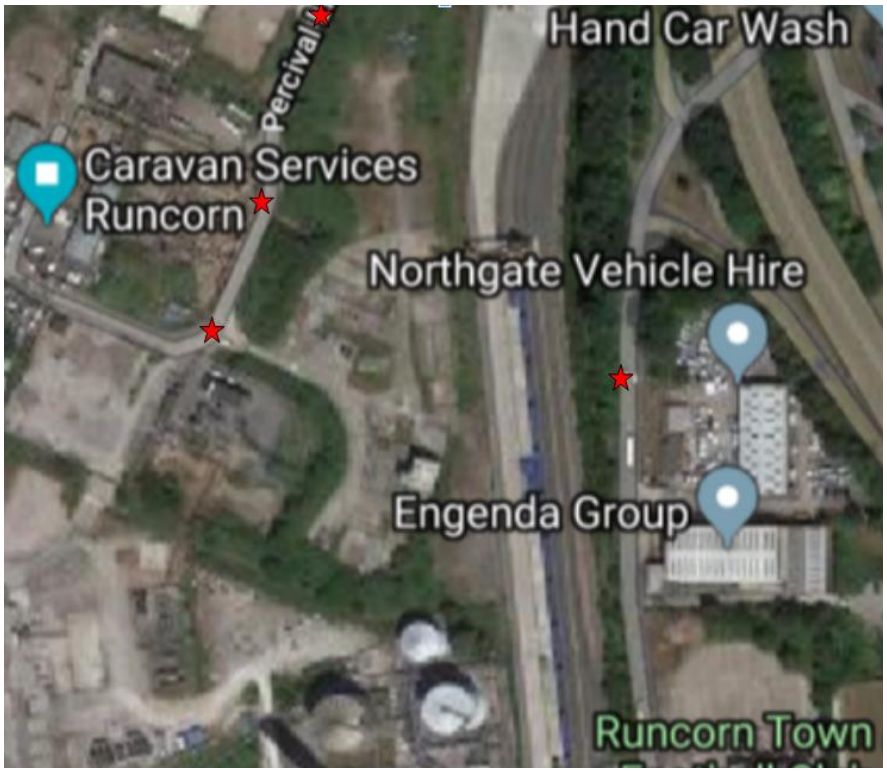

Figure 3.1 - Off site perimeter inspection route

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

4. Particulate Matter Monitoring

Quarterly monitoring for PM_{10} will be undertaken by a suitably qualified and MCertified Company to ensure there is no release of particulate matter beyond the boundary. A summary report will be provided to the Environment Agency following the testing. The site is not located in an Air Quality management system and therefore a permanent monitoring system is not proposed. Should PM_{10} particulates be an issue at the site a revised DEMP will be submitted including a detailed monitoring programme.

5. Reporting and Complaints Response

Following a complaint relating to dust from the site the following will apply:

a. Investigate the complaint
b. Notify managers in section 3.1
c. Complete all details on the Veolia - RIVO system.
d. Respond to complainant following investigation

5.1 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.

5.2 Reporting of Complaints

All reports of complaint will be recorded on the Veolia- RIVO system

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.

5.4 Summary

Runcorn site is committed to continuously reduce levels of fugitive dust generated by our Facility and is sensitive to the concerns of neighbouring businesses regarding the levels of dust experienced. Runcorn 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.

The DEMP will be reviewed annually.

Appendix A - 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 reoccurrence -	
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	