


FUGITIVE RELEASES MANAGEMENT PLAN

Environmental and sustainability solutions provided to
RESOURCE RECYCLING SOLUTIONS LTD

WRM-LTD.CO.UK



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1.0 SITE LOCATION

1.1 Site Address

Iron House Farm
Lancaster Road
Preston
Lancashire
PR3 6BP

1.2 Operational Locations

Grid Reference: 341162,444756

1.3 Description

Iron House Farm is located off Lancaster Road, 17km south of Lancaster and 9km west of the M6. The main village of Out Rawcliffe is situated 3km to the southwest. The site is situated within an area that is of agricultural use with some residential. The site is also surrounded by fields in all directions and two forests; one to the north called Tarn Wood and the one to the south called Williamson's Wood. There are properties directly to the north of the site, mainly dealing in farming and horses. There are other farming properties surrounding the site at a greater distance away of at least 300m.

The nearby sensitive receptors include Moss Cottage, a residential property approximately 130m north of the eastern portion of the site.

Under the current Permit, Resource Recycling Solutions Ltd (hereon referred to as 'RRS') are operating a resource recovery facility currently processing up to 75,000 tonnes a year of non-hazardous green waste from a variety of sources, mainly from local authority kerbside collections. The green waste composting process is an 8-week process in open-air, turned windrows. Three grades of compost are produced; 0-40mm, 0-10mm and 10-60mm.

Green material is delivered and placed on a designated reception area where shredding takes place. The material is then moved across to the sanitisation area to the west of the reception area where the material is formed into static windrows. Material is then moved along to the stabilisation area in static turned windrows on the western side of the site.

RRS are seeking consent to operate a closed In-Vessel Composting (IVC) system at the Iron House Farm site in addition to the existing open windrow composting (OWC) system. The IVC

system would process green waste, non-hazardous food waste or comingled food and green waste primarily from kerbside collected, civic amenity and commercial waste streams. The OWC system would continue to process green waste material only.

It is proposed that the facility continues to process up to 75,000 tonnes of biodegradable waste per year. The green waste only element of this will be processed through the OWC system or the closed IVC system. The comingled food and green waste or food waste only element will be processed through the closed IVC system. An extension to the site boundary is required to facilitate the addition of the closed IVC system. It is proposed that the site is extended to the south by 50m, on which windrows would be located.

RRS are also seeking consent to screen and blend waste to produce aggregate or soil as an activity on the environmental permit. This is currently carried out as a registered waste exemption at the site but with changes expected imminently to the waste exemption regime, the opportunity has been taken to seek permission to add this activity to the environmental permit. In addition to this, RRS are seeking permission to add the activities associated with the previously registered waste exemptions for treating waste wood and plant matter by chipping, shredding, cutting or pulverising (T6) and the use of waste in construction (U1) to the environmental permit. It is proposed that up to 1,000 tonnes of waste material associated with each of the above activity be processed or stored on site at any one time. This would form part of the annual throughput of 75,000 tonnes of waste material at the site.

Any rejected load or part-load is kept separate from loads awaiting inspection or those accepted for composting.

1.4 Plans

Reference Drawing: RRS02 Site Location Plan
RRS03 Site Layout Plan

1.5 Permits and Licences

RRS operate a composting facility under an installation permit, reference number EPR/QB3036RB. This permits the facility to undertake composting of up to 75,000 tonnes per annum of green waste in open windrows.

RRS also has a registered waste exemption on the site. This is a T5 waste exemption for screening and blending waste. This allows RRS to temporarily treat waste on a small scale to

produce aggregate or soil at their particular site. RRS can store up to 50,000 tonnes of bituminous mixtures for making roadstone or 5,000 tonnes of other waste allowed under this exemption over a 3-year period. Waste cannot be stored for longer than 12 months.

1.6 Planning

The site has full planning permission for the facility: 02/08/1116 from Lancashire County Council dated 14th November 2008.

2.0 WASTE OPERATIONS

2.1 Introduction

RRS will operate green and comingled food and green waste or food waste only recycling facility for the treatment and recovery of various non-hazardous waste materials. RRS also screen and blend waste to produce aggregate or soil, treat waste wood and plant matter by chipping, shredding, cutting or pulverising and use waste in construction. These activities could give rise to fugitive emissions which require management to prevent production and release to the environment and local sensitive receptors. This management plan outlines the steps taken to mitigate the release of the fugitive emissions identified within this assessment.

2.2 Activities

The waste processing and recovery activities include:

- Recovery of green biodegradable wastes through open windrow composting (OWC);
- Recovery of biodegradable green wastes, comingled green and food wastes through an In-Vessel Composting (IVC) system (sanitisation) and OWC (maturation).
- Screening and blending of waste to produce aggregate or soil.
- Treatment of waste wood by chipping, shredding, cutting or pulverising.
- Use of waste in construction.

The activities involved in the recovery of wastes which can give rise to fugitive emissions include, material:

- transportation
- handling
- shredding
- screening
- processing
- storage

2.3 Fugitive Emissions Management Requirements

The preparation of this document has been undertaken using the guidance outlined in Getting the Basics Right, Sector Guidance Note (SGN) IPPC 5.06, Develop a management system: environmental permits and Control and monitor emissions for your environmental permit. The

typical condition regarding emissions of substances not controlled by emissions limits (fugitive emissions) on a permit is as follows:

"Emissions of substances not controlled by emissions limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition in appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions."

The operator will:

"If notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan. Implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency."

2.4 Fugitive Emissions

This Management Plan addresses the need to manage the potential for fugitive emissions from the operations that may be considered as an environmental impact and a nuisance to neighbouring businesses and operations. Fugitive emissions include dust, volatile organic compounds (VOCs), mud, litter and fugitive releases to water and ground.

Fine dusts, fumes and volatile organic compounds can lead to serious health impacts and fugitive leaks to ground or water can have serious effects on water supplies and aquatic ecosystems. You need to prevent or minimise these, no matter how near or far people or other receptors may be.

Other pollutants, such as coarse dust, mud and litter may be only a localised nuisance. However, you do not have the right to cause pollution or nuisance outside your site due to your activities. Your neighbours have a right to expect that your activities will not detract from their quality of life.

They have a right to expect that their environment will be free from emissions caused by your activities either on a continuous basis or at frequent intervals.

Examples of common sources of fugitive emissions are:

- Open vessels;
- Sampling activities;
- Storage areas (for example, bays, stockpiles, storage tanks, etc.);
- The loading and unloading of containers;
- Transferring/bulking up of material from one vessel to another;
- Conveyor systems;
- Pipework and ductwork systems (e.g. pumps, valves, flanges, catchpots, drains);
- Poor building containment and extraction;
- Potential for by-pass of abatement equipment (to air or water);
- Spillages;
- Accidental loss of containment from failed plant and equipment;
- Tanker and vessels manhole openings and other access points
- Displaced vapour from receiving tanks;
- Cleaning or replacing of filters;
- Drum cutting;
- Wastewater storage;
- Drum storage;
- Tank cleaning; and
- Tanker washing.

3.0 MANAGEMENT PLAN

The Fugitive Emissions Management Plan will identify sources and potential sources of fugitive emissions and will consider the risk to sensitive receptors. The Fugitive Emissions Management Plan has been produced with the intention to reduce as much as possible fugitive emission causing activities.

This Fugitive Emissions Management Plan contains:

- An assessment of the risks of fugitive emissions problems, from normal and abnormal situations, including worst case scenarios, for example of weather, temperature or breakdowns and accidents.
- The appropriate controls (both physical and management) needed to manage those risks.
- Suitable monitoring.
- Actions, contingencies, and responsibilities when problems arise.
- Regular review of the effectiveness of fugitive emissions control measures.

3.1 References

Documents to be viewed in conjunction with the Fugitive Emissions Management Plan:

RRS01_Non-Technical Summary
RRS_Environmental Risk Assessment
RRS03 – Management System
RRS04 – Accident Management Plan
RRS05 – Odour Management Plan
RRS10 – Drainage and Leachate Management Plan

4.0 SENSITIVE RECEPTORS

4.1 Personnel On Site

Personnel/operatives working on site are the closest receptors to any fugitive emissions produced on site, however due to consistent working conditions it may be unlikely that operatives would be particularly sensitive to fugitive emissions or to changes/fluctuations in fugitive emissions. All operatives will be made aware of the issue of fugitive emissions on site and should be fully conversant with the contents of the Management System and the Fugitive Releases Management Plan.

4.2 Neighbours

Neighbouring buildings and businesses are likely to be the most sensitive receptors to fugitive emission nuisances especially those not operating waste management facilities. Dust, fumes, and litter will be particularly noticeable to neighbouring activities. Good relationships with neighbouring landowners and businesses are essential in order to anticipate potential problems and avoid them, where possible, before official complaints are made. Site operators will ensure:

- That all the neighbouring buildings know how to contact the site if they consider fugitive emissions to be a problem (contact details will be clearly visible on the site sign along with the Environment Agency details); and
- That any complaints are recorded and that problems, where possible, are dealt with promptly.

An assessment of the local sensitive receptors is made in Table 1 & Figure 1 below, identifying the distance to and location of receptors.

Table 1 - Sensitive Receptors Near Site

Receptor	Distance from Site (m)	Coordinates (x,y)
HR01a – Moss Cottage Farm	130 (N)	341093, 444780
HR01b – Light Industrial Unit	165 (N)	341103, 444787
HR02 – Lousana Farm Works	488 (E)	341531, 444584
HR03 – Mose Side Farm	491 (E)	341529, 444500
HR04 – Prospect Farm	1,043 (SE)	341996, 444150
HR05 – The Bungalow	814 (SE)	341708, 444101

Receptor	Distance from Site (m)	Coordinates (x,y)
HR06 - Mayfair	984 (SE)	341790, 443929
HR07 - Chathill Farm	439 (S)	341280, 444201
HR08 - Bull Foot Cottage	1,144 (S)	340905, 443436
HR09 - Freshfields Farm	1,109 (W)	339958, 444342
HR10 - Birchcroft	1,162 (W)	339888, 444664
HR11 - Residential Property	990 (NW)	340230, 445137
HR12 - Clark Cottage	1,018 (NW)	340407, 445366
HR13 - Carr House	1,069 (NW)	340490, 445485
HR14 - Invergorden	1,132 (NW)	340611, 445617
HR15 - Ivy Farm	1,074 (NW)	340755, 445604
HR16 - Brook Farm	618 (N)	340952, 445182

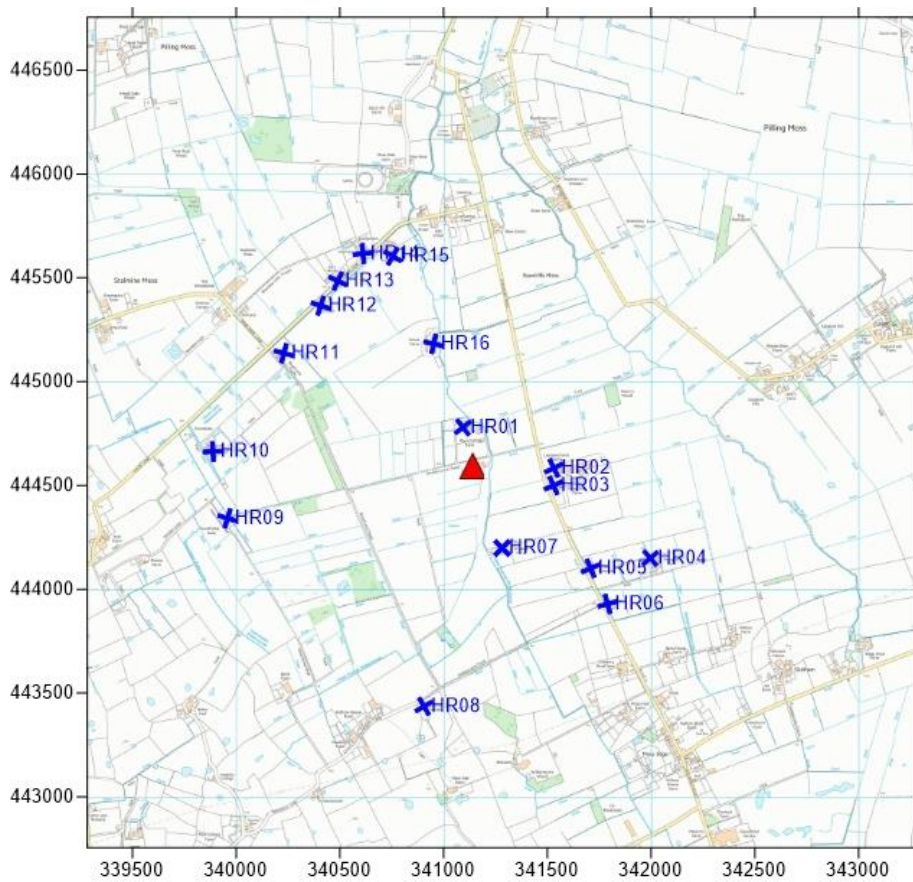


Figure 1 - Map of Sensitive Receptors

4.3 Wind Direction

The following section identifies the prevailing weather conditions on site, in particular the wind direction, in order to predict the path of likely aerial dispersion of dust generated on site. Information on wind direction has been derived from Garstang over the last 30 years. This data is illustrated by the wind rose in Figure 2. Wind data is collected daily as part of the routine monitoring on site. 8-point wind directions are provided below, note that calm days are also included to provide a complete data record. Figure 2 demonstrates that the predominant wind direction in the region is from the southwest, west southwest and westerly directions.

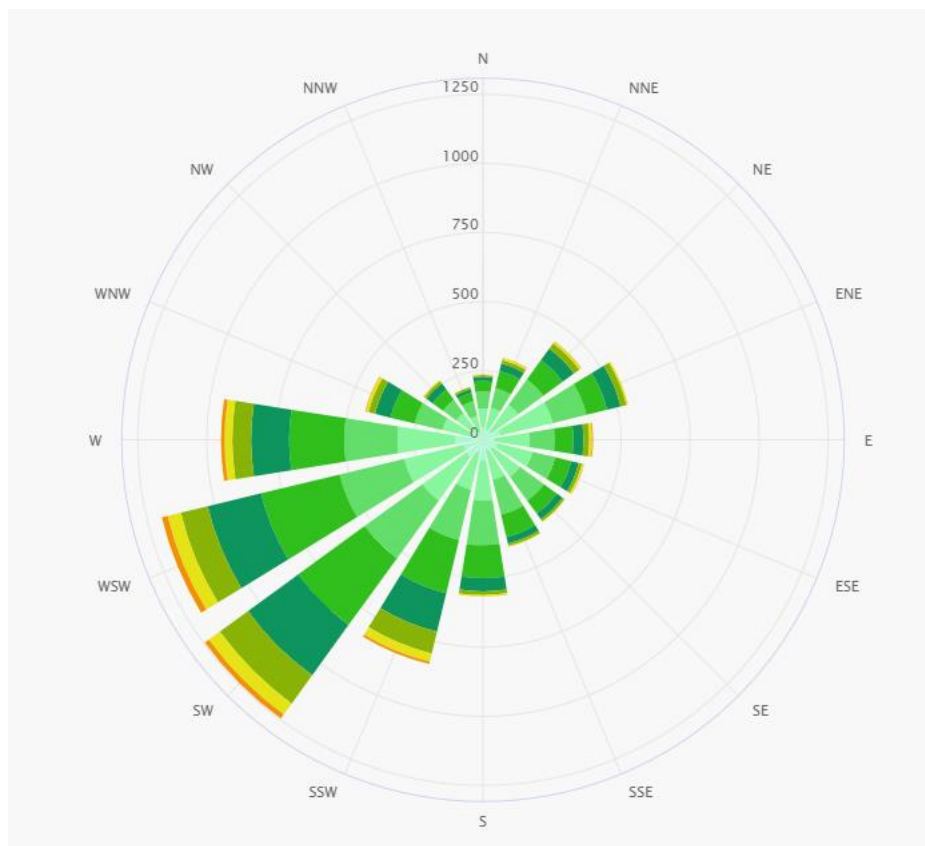


Figure 2 - Wind Rose Data

5.0 CONTROL MEASURES

5.1 Aerial Emissions of Dusts, Fibres and Particulates

There are few activities on-site that may create dust which could possibly drift off-site and cause an amenity nuisance. Such activities include:

- Waste vehicle movements (vehicles may kick up dust during dry weather).
- The reception and pre-treatment of waste materials (e.g. shredding and sizing).
- The grading of processed wastes including compost (i.e. screening).
- The turning of windrows on the composting pad.
- The loading of materials into waste vehicles for export to end markets.

In order to minimise potential generation of dust from the site, the following preventative or reactive control measures shall be implemented by the Site Manager for the separately identified potential dust generating activities. In addition to these, general measures shall also be undertaken. Site staff supervising individual waste handling operations shall, during the carrying out of those operations, undertake visual monitoring of aerial emissions. On detection or notification of visible aerial emissions that are likely to be transported beyond the site boundary, immediate action will be taken to stop the waste handling operations giving rise to the emission and to suppress the aerial emission from the waste. The incident and the remedial action will be recorded in the site diary.

5.1.1 Waste vehicle movements

- Dust generation attributable to vehicle movements will be controlled by the maintenance and sweeping of the site access road.
- Mud and debris on access and haul roads shall be monitored daily by the Site Manager and cleaned when required.
- During periods of dry weather, site management will ensure action is taken to spray the roads using a water bowser or road sweeping vehicle, if deemed necessary by the Site Manager.
- All heavy goods vehicles and plant will be checked before use by the driver and hosed down as necessary to ensure that deposits of mud are not carried outside the site.
- A site speed limit of 10mph will be enforced for all vehicles to minimise the potential aerosolisation of dust into the atmosphere.

5.1.2 The reception and pre-treatment of waste materials

- All materials handled on site shall be done so in a controlled manner, with consideration given to the potential for dust generation at all times.
- Should material entering the shredder be observed to be dry, water will be added to limit aerial dispersion.
- During shredding operations, a 10m exclusion zone will be maintained around the shredding equipment to ensure that site operatives and waste vehicle drivers are outside the area where airborne dusts would be concentrated. Operatives needing to work inside this zone will wear an appropriate face mask.

5.1.3 The grading of processed waste

- Screening will take into account moisture content and wind speed to ensure the operation does not present a problem in terms of dust.
- The screening operations will be monitored (as per shredding) and if found necessary, water sprays will be provided on the screening equipment.

5.1.4 The loading of materials into vehicles for export to end markets

- Drop heights of material from loading shovels to the export vehicles are reduced as far as practicably possible.
- Material is damped down if required whilst being loaded into export vehicle.

5.2 Odour

Odour has been identified and accounted for separately within the site-specific Odour Management Plan.

5.3 Bioaerosols

The site has undertaken a full Site Specific Bioaerosols Risk Assessment for current activities on site. The risk assessment includes measures for management control and proposed frequency for site monitoring.

5.4 Control of Pest Infestations

Measures will be implemented and maintained throughout the operational life of the site to control and monitor the presence of pests on the site. An inspection of the facility for pest infestations will be carried out in regular intervals by the site supervisor and will be recorded in the site diary.

On detection or notification of pest infestations, or evidence of such, immediate action will be taken to secure the attendance of a professional pest control contractor, to eliminate the pest infestation. The incident and the remedial action will be recorded in the site diary.

5.5 Control of Scavenging Birds and Other Scavengers

Measures will be implemented and maintained throughout the operational life of the site to control and monitor the presence of scavenging birds and other scavengers.

On detection or notification of scavenging animals or flocks of scavenging birds, immediate action will be taken to remove or deter them from the site. The incident and the remedial action will be recorded in the site diary.

5.6 Control of Litter

All waste inputs will be deposited in their relative reception areas. All comingled food and green waste or food waste only is deposited within the IVC building. This will reduce the potential problem of windblown litter from the site. Staff will inspect the site daily and remove any litter which has accumulated. Details of site inspections and actions will be recorded in the site diary. In the event that litter does escape from the site, it will be retrieved as soon as is practicable, and no later than one hour after the end of the working day.

5.7 Surface Water Control

All surface water and process water will be collected on site via the constructed drainage system and storage tanks for storage and re-use on site or to be removed to a licensed facility as appropriate. The table below provides the minimum specified standards for the site surface water control system.

Minimum Specified Standards of Design, Construction and Maintenance	
Sealed Drainage Systems	<p>Drainage to areas of impermeable pavement will be provided by a sealed drainage system with impermeable components which does not leak and will ensure that:</p> <ul style="list-style-type: none"> • No liquid will run off the pavement other than via the system, and; • Except where they may be lawfully discharged, all liquids entering the system are collected in sealed tanks.

Minimum Specified Standards of Design, Construction and Maintenance	
Sealed Tanks	<p>The minimum capacity of the sealed sump or lagoon will be calculated using the 1 in 10-year rain event rule. The sump or lagoon will be inspected no less frequently than daily and after rain, emptied when the collected liquids reach 90% of its capacity as measured using a dipstick or equivalent gauge or in the case of a lagoon some other readily identifiable marker, and constructed and maintained so as to collect and contain all liquids which run off the pavement.</p> <p>Inspections and emptying of sealed tanks shall be recorded in the site diary.</p>
Fixed Bays/Containers	<p>All fixed bays and other fixed containers used for the storage and treatment of wastes must be constructed and maintained to a standard, which is fit for purpose.</p>
Inspection and Maintenance	<p>All areas of impermeable pavement, sealed drainage systems, covered buildings roofed areas, fixed bays and other containers, and storage areas for skips, drums and other mobile tanks and containers:</p> <p>Shall be inspected no less frequently than monthly, to ensure the continuing integrity and fitness for purpose of their construction, and the inspection and any necessary maintenance will be recorded in the site diary; and</p> <p>In the event of any damage occurring which breaches the integrity of the engineered containment so that it no longer meets the specified standards, the licence holder will cease importing waste into or treating waste in the affected area, will notify the EA immediately, and will not recommence importing waste into or treating waste in the affected area until it has been repaired to a standard at least as good as the original specification.</p>

5.8 Mud on the Road

Whenever the site is receiving or despatching wastes, measures will be provided, operated, and maintained with the objective of preventing the deposit or tracking of mud or debris arising from the site onto public areas outside the site, which will include public highways and areas of public access.

All vehicles leaving areas of the site which are operational or upon which engineering works are being carried out will, before leaving the site, be cleaned as necessary and will be checked to ensure that they are clear of loose waste and that any waste is secure.

In the event that mud, debris or waste arising from the site is deposited onto public areas outside the site, the following remedial measures will be implemented immediately:

- The affected public areas outside the site will be cleaned.
- Traffic will be isolated from sources of mud and debris within the site to prevent further tracking of mud and debris, and measures will be taken to clear any such sources as soon as practicable.

5.9 Adverse Weather Conditions

Adverse weather conditions	
Heavy rainfall	Waste reception and sanitisation undertaken on site will be undertaken on the permitted area. Stabilisation and maturation of compost will be undertaken outdoors on concrete hardstanding with sealed drainage. In the event of continuous heavy rainfall all waste management operations may continue with regard to site risk assessment. Those wastes received which are unsuitable for processing or not permitted under the Permit and which arrive as minor contaminants within larger loads, are stored in closed containers provided and removed from site to an appropriate disposal site on a regular basis.
Strong winds	Winds will not affect those activities which take place indoors. External operations will be limited by wind strength and direction as determined by the site Odour Management Plan. Controls within the OMP will determine which activities can take place in order to mitigate odorous emissions from site.
High temperatures	High temperatures may affect Fugitive Emissions through dry weather. Dust generation attributable to vehicle movements will be controlled by the maintenance and sweeping of the site access road. During dry weather, action will be taken to spray the roads using a water bowser.
Snow, frost and ice	Snowfall, frost and ice are unlikely to affect Fugitive Emissions.

5.10 Accident Management

Accident management has been identified and accounted for separately within the site-specific Accident Management Plan.

5.11 Housekeeping

Good housekeeping practises on site to minimise the potential for fugitive emissions will include:

- The removal of all waste from the tipping floor at the end of each operating day;
- Regular inspection of drainage system and cleaning when deemed necessary;
- General housekeeping and inspection procedures maintained; cleaning and disinfection of all surfaces that come into contact with waste (including containers) on a regular basis.
- Maintaining the clean and dirty areas at the IVC building in order to comply with ABP regulations. Wheels of waste delivery vehicles are washed and disinfected before leaving the reception building and footwear washes are provided at the exits of IVC building.

6.0 MONITORING

The operator will ensure, by the implementation of a monitoring plan, that fugitive emissions from the site are limited and where possible stopped and that by effective mitigation the impacts of any fugitive emissions will be reduced. The monitoring of fugitive emissions will include:

- Thorough site inspection once a week (minimum);
- End of day litter checks/picks; and
- Prompt response to any complaints.

Operatives will be fully conversant with the contents of the Permit, the Management System and Fugitive Emissions Management Plan and will be relied upon to remain observant and to draw attention to any non-conformances, adverse operating conditions and any mitigation or management failure.

6.1 Monitoring Records

Records will be kept of site inspections. Any adverse operating conditions, non-conformances, complaints and mitigation/management failure resulting in an accident or non-compliance with the Permit will be recorded in the site diary.