Dust Management Plan

Birch Airfield Composting

Report produced for **Birch Airfield Composting Services Ltd**

Provided by Walker Resource Management Ltd (WRM)

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0.3	11/07/2022	With Client comments
1.0	11/07/2022	First Issue
2.0	26/03/2024	Second Issue

CONTENTS

1.0 INTRODUCTION

This Dust Management Plan (DMP) has been produced in accordance with the Environment Agency's (hereafter EA) Guidance '*Control and Monitor emissions for your environmental permit*' (published 1st February 2016, updated 17 May 2021) which includes a section on emissions management plans for dust and relates to the waste materials accepted, stored and treated at the site which may produce emissions.

The DMP identifies potential sources of dust emissions and the associated potential impacts as well as details of the measures to be implemented at the site to reduce dust and particulate emissions.

1.1 Dust Management Aims

The aim of the Dust Management Plan is to:

a) Minimise dust generation and migration from the site;
b) Ensure dust pollution at local sensitive receptors is minimal;
c) Establish a dust minimisation strategy that shall be implemented by site management; and,
d) Ensure that operations at the site have consideration for potential dust generation;
e) Ensure that site operates within the permitted dust emissions limits.

1.2 Conceptual Model

The conceptual model for pollutant linkages identified for the release of odours from the waste treatment facility is identified in Figure 1 below.

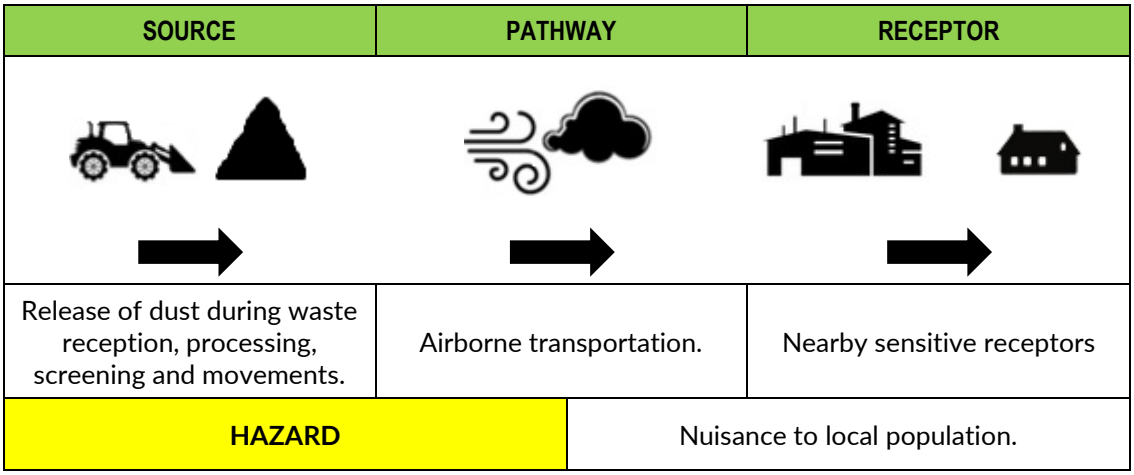

Figure 1 - Conceptual Model for Pollutant Linkages

Details of the conceptual model and pollutant linkages can be seen in *BACS Environmental Risk Assessment*.

2.0 SITE SETTING

Birch Airfield Composting Services Ltd
Birch Airfield, Birch
Blind Lane,
Colchester, Essex,
CO5 9XE

The site is situated on an old RAF airfield situated approximately 3km northeast of Tiptree and 10km southwest of Colchester.

The site comprises three areas:

- The reception area where is tipped and inspected.
- The operational area where the waste is shredded, windrows formed and aerated.
- The storage area where the composted material is stored, awaiting final use off site.

There is a port-a-cabin site office on site which provides a mess room, toilet and wash facilities and hot and cold water. There is also space for staff and visitor parking.

The site is situated within a rural area, primarily surrounded by agricultural fields. There are no sensitive receptors within 250m of the site boundary.

2.1 Sensitive Receptors

There are no sensitive receptors within 500m of the site boundary.

2.1.1 Personnel on Site

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

2.1.2 Neighbours

Neighbouring sites and businesses are likely to be the most sensitive receptors to dust emissions especially those not operating waste management facilities. Dust, fumes and litter will be particularly noticeable to neighbouring activities. The site is situated within a primarily agricultural area, with some residential properties nearby. Good relationships with neighbouring home-owners, land-owners and businesses are essential in order to anticipate potential problems and avoid them, where possible, before official complaints are made. Birch Airfield Composting Services Ltd (hereon referred to as BACS) shall ensure:

- All the neighbours know how to contact the site if they consider dust emissions to be a problem (contact details will be clearly visible on the site sign along with the Environmental Agency details); and
- Any complaints are recorded and that problems, where possible, are dealt with promptly.

Given the proximity of the site to the nearest property (>500m away) and the dust control measures that the site has in place as described in section 3.0, it is considered unlikely that dust emissions from BACS waste treatment activities will cause nuisance or distress to neighbours of the site.

3.0 DUST CONTROL MEASURES

The following section details the control measures that will be implemented onsite to prevent or minimise dust emissions arising from the potential dust sources onsite.

3.1 Dust Generating Activities

Potential dust emissions from the site may be generated from activities associated with:

- Waste vehicle movements in and out of the site and around the site (vehicles may kick up dust during dry weather);
- The reception and pre-treatment of green waste materials (e.g. shredding and sizing).
- The grading of processed wastes including compost (i.e. screening).
- The conditioning of imported soil wastes prior to blending with compost.
- The blending of imported soil wastes with finished compost.
- The loading of materials into waste vehicles for export to end markets.

In addition to the above, dust generation may be significant during periods of strong winds and dry weather.

3.2 Methods of Prevention

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.

3.2.1 General Measures

- The Site Manager shall conduct daily visual assessments of dust emissions within the site and at the downwind site boundary. If potential or actual dust issues are identified the appropriate preventative or remedial actions will be implemented as soon as practicable. The most effective action in these scenarios will usually be dampening the affected area with water.
- All waste materials shall be tipped into a dedicated storage area and the site management (COTC holder) oversees the storage of the compost. This ensures consideration of potential for dust generation at all times.
- Weather conditions will be considered when scheduling site activities. In windy and or dry conditions activities that are considered a high dust risk will postponed if practicable or additional mitigation measures such as dampening will be implemented.
- The routine cleaning of vehicles and roadways onsite to mitigate dust generation from vehicles shall take place.
- Operatives are instructed to handle the waste carefully and consider dust production before moving waste.

3.2.2 Vehicle Movements

- Site access roads and internal roads shall be maintained and swept regularly to limit the dust generation related to vehicle movements on site. The central access track for the site shall be dampened using rainwater from a collection reservoir to manually control the dust.

- All vehicles entering or leaving the site will be covered to prevent aerosolisation of dust and particulates into the atmosphere.
- Mud and other debris will be monitored by the site manager and cleaned when necessary.
- During periods of dry weather or heavy traffic, the site manager will ensure roads are dampened as appropriate to prevent dust production.
- A site speed limit of 5 mph will be enforced for vehicles to reduce the likelihood of dust or particulates being emitted into the atmosphere and dispersing further. The speed limit can be reduced during dry weather or strong wind.
- BACS shall run a controlled traffic system to limit the amount of vehicle movements on site at any one time to reduce dust production.

3.2.3 The reception of waste materials

- The site operative overseeing the unloading of the waste will be on hand to ascertain whether the release of dust is a problem. This is for both the green waste and the inert soil waste.
- 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.
- All waste materials shall be tipped into a dedicated storage area and the site management (COTC holder) oversees the storage of the compost. This ensures consideration of potential for dust generation at all times.

3.2.4 Treatment of waste

- 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.

For the reception and conditioning of green wastes on site, the following methods of prevention shall be implemented:

- Should material entering the shredder be observed to be dry, water will be added to dampen material in order to limit aerial dispersion.
- Waste will be tipped from a low drop height to minimise the aerosolization of dust and bioaerosols.

For the reception and conditioning of inert soils on site, the following methods of prevention shall be implemented:

- Waste will be tipped from a low drop height to minimise the aerosolization of dust and bioaerosols.

3.2.5 The grading of processed waste

- Screening of material 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.

- Screening or blending of material will not take place during excessively windy conditions.
- Blending of inert soil with compost will be carried out in a controlled manner, with consideration given to the potential for dust generation at all times.
- Material shall be dampened with water sprays during the blending process where material is deemed to be too dry.

3.2.6 The loading of waste materials for export off-site

- 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.
- All loaded vehicles leaving the site will be covered to prevent spillages.

3.3 Dampening

Dampening of material will be carried out in the following situations:

- During periods of dry weather, such as during summer;
- During unloading, when the waste being imported has been identified as dusty;
- When dust emissions are observed by the Site Manager during the visual assessment or by operatives;
- When dust emissions have been observed outside of the site boundary during the daily visual inspection;
- In response to any complaints received about dust from the site; and
- When significant dust is observed on the site during routine site inspections.

3.4 Local Contributors of Dust and Emissions

The site is in an agricultural area surrounded by fields in each direction, and a concrete processing plant approximately 800m east of the site boundary. There is no significant contributor to aerial emissions locally.

3.5 Suspension of Activities

The Site Manager shall decide when site activities will have to be suspended due to excessive dust generation. The Site Manager will visually assess the dust emissions each day and will use their observations to make this judgement. This could also be impacted by weather conditions on the day. On detection or notification of visible aerial emissions that are likely to be transported beyond the site boundary, immediate action shall be taken to stop the material handling operations giving rise to the emission and suppress the aerial emission from the material as required. The incident and the remedial action shall be recorded in the site diary.

4.0 MONITORING AND REPORTING

BACS will ensure, by implementation of a monitoring plan, that dust emissions from the site are limited and where possible prevented in the first instance. Through effective mitigation the impacts of any dust emissions shall be reduced. The monitoring of dust emissions shall include:

- Daily site walkovers;
- Thorough site inspection to assess site integrity (minimum);
- End of day litter checks/picks; and,
- A prompt response to any complaints.

Records shall be kept of any monitoring/inspection carried out

4.1 Response to Dust Events

Where dust is identified as an issue at the site during daily site inspections, an inspection will be carried out by the Site Manager to determine the cause.

Where a site activity is identified as being the source of the emissions and implemented mitigation measures have failed, the operation identified as the source will be ceased until a remedial measure has been found.

Where dust emissions are continually identified as an issue at the site and complaints are received as a result, the Site Manager will review the mitigation measures and monitoring techniques detailed in this management plan in order to improve detection and prevent emissions being discharged from the site.

Due to the prevailing wind direction and the distance between the site and receptors the risk of dust and particulate emission impacting sensitive receptors is considered low, therefore no additional forms of dust monitoring are proposed for this site.

4.2 Recording

The dust monitoring results from the daily inspection including the dates, times, wind direction, weather conditions and observations will be recorded and retained on site. Any adverse operating conditions, non-conformances, complaints and mitigation/management failure resulting in an accident or non-compliance with the Permit shall be recorded in accordance with the operator's wider corrective/preventative actions procedure.

4.3 Complaints

All complaints received concerning dust and particulate emissions at the permitted site will be dealt with in accordance with the company's environmental permit management system complaints procedure.

BACS shall decide and implement any necessary action in response to any complaints or concerns expressed by interested parties, including operatives, customers, clients and regulatory authorities.

The operator shall record the:

- Name and contact details of the person who expressed concern or made a complaint;

- Specific subject(s) of the concern or complaint;
- The source / location of where the complaint comes from;
- Date and time communicated to the producer and name of the person to whom it was communicated;
- Nature and date(s) of any actions and checks and who carried them out;
- Nature and date of any response to the person who expressed a concern or made the complaint; and
- Name of the person who communicated the response.

The complaint form can be seen in Annex A below.

Upon receipt of a complaint regarding dust, BACS will open an investigation. The investigation will look into site operations at the time of the complaint, weather conditions at the time of the complaint and any other points of note such as off-site activities being undertaken at the time of monitoring.

Each complaint will be treated in the same manner, on a case by case basis. BACS will complete the complaint form within 48 hours of receipt of the complaint. The completed complaint form shall be stored in the site office.

The Environment Agency will be informed of any emissions not controlled by an emission limit which has caused, is causing or may cause significant pollution.

Any complaints received by the Environment Agency relating to dust emissions from the site will dealt with as soon as is reasonably possible upon notification.

4.4 Responsibility

The Site Manager is responsible for this Dust Management Plan and the procedures within it. Should the Site Manager be away from the site, responsibility will rest with the designated deputy.

ANNEX A – COMPLAINTS FORM

Complaints Form			
Date:		**Ref No.**	
Name, address and phone number of complainant.			
Time and date of complaint.			
Date, time and duration of offending dust release.			
Weather conditions (e.g., dry, rain, fog, snow).			
Wind strength and direction (e.g. light, steady, strong, gusting).			
Complainant's description of dust: -Duration -Constant or intermittent			
Has complainant any other comments about the offending dust release?			
Any other previous known complaints relating to installation (all aspects, not just dust).			
Any other relevant information.			
Potential dust sources that could give rise to the complaint.			
Operating conditions at the time offending dust release occurred.			
Action taken			
Final outcome			
Form completed by (signed):		**Date**	

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