

Dust Bioaerosols Management

Project Name	Langrick Manor Farm
EPR	EPR/CP3428MY/P001
Type (New Permit/Variation)	New

Introduction

This bespoke Dust and Bioaerosol Management plan has been prepared to support the overall Environmental Management System in place. The overriding principle of this plan is to ensure the day-to-day activities are carried out in accordance with this document to help minimise the overall environmental impact. There is one sensitive receptor within 100m distance of the installation boundary which is a farmhouse residence, owned and resided in by the operators of the site.

There have been no previous issues relating to dust and bioaerosols in relation to the farm.

Setting

Surrounding the farm is primarily arable farming with some woodland areas. The land is generally flat. There is a wooded area bordering the southern edge of the site and drains to the eastern and western sides.

The settlement of Langrick is located 450m to the North of the installation.

Figure 1 shows the location of the installation and of the receptors within 100m which have been considered in this dust and bioaerosol management plan.

Buffer 100m

Table 1: Sensitive Receptors and distance of Sensitive Receptors from Installation Boundary to nearest point of domestic curtilage

Reference	Description	National Grid Reference	Orientation from installation	Distance (m) to nearest point of domestic curtilage
1	Manor Farm	TF 27050 48352	N	8

The purpose of this Dust and Bioaerosol Risk Management Plan is to:

Establish the likely source of dust and bioaerosol arising from the farm

Set out procedures at the farm to mitigate or minimise the risk

Formalise an effective method of dealing with any complaints quickly and effectively

Potential Sources

In accordance with the document, 'How to comply with your environmental permit for intensive farming', a risk assessment of dust and bioaerosol pollution was performed.

As a result, the following sources have been identified as contributing to a potential **low risk** dust/bioaerosol source:

Dust and bioaerosol emissions from feed selection
Dust and bioaerosol emissions from bedding material
Dust and bioaerosol emissions from manure storage
Dust and bioaerosol emissions ventilation
Dust and bioaerosol emissions cleanout
Dust and bioaerosol emissions housing
Dust and bioaerosol emissions from incinerator

Pathway and receptors

The pathway for all of the above sources is via the atmosphere. The most sensitive receptors will be inhabitants of nearby residential dwellings. Wind direction will significantly influence how receptors are affected. We have not received any complaints from neighbours relating to dust and bioaerosol from the farm.

Table 3: Pig dust and bioaerosol management

Dust and bioaerosol related issues	Actions taken to minimise dust and bioaerosol	Completion date
General such as the day to day activities	Weekly inspections of the site by the operator Looking for signs of dust which could leave the installation boundary or be a hazard to staff and visitors	Ongoing
Pig feed	Dust from silos minimised by using covers over feed pipes such as bags or containers on the silo exhaust to catch any excess feed and dust The feed is not milled on site so this is not an issue Storage of feed will cause some dust build up, having covered feed containers should reduce this and improve biosecurity Feed spillages will be swept up and collected immediately to avoid dust being generated. This will also prevent possible pollution from entering the watercourse Feeding method will also impact dust emissions so the internal feed bin is covered with a plywood constructed top, and the auger pipe is fitted through the cover and fitting a material sock to the end of the pipe which delivers feed directly to the bin may reduce feed dust that is created by freefalling into the bin.	Ongoing
Ventilation	Ventilation is carefully controlled, maintained and monitored to meet animal welfare requirements and ensure efficient productivity. High speed roof fans will be used as the pigs will require airflow control as they can be unsettled by draughts and may need increased ventilation during the summer. Weekly inspections by the operator will happen and any visible dust on the fans and vents will be removed	
Housing cleaning	The housing is thoroughly cleaned between batches which is essential to reducing the volume and potential for air contamination with the house and via the exhaust system. Dust accumulation around the exhaust vents is avoided and cleaning takes place to avoid releasing dust to the air or water	
Building layout and design	The design of the ventilation will provide good air quality to animals and staff	

4 Contingency Plan

Abnormal Scenario	Remedial Action	Time Limit	Action taken
Damage to building	Damage would be repaired asap and, depending on nature of damage, area made safe and covered/contained in the meantime to prevent increased dust/bioaerosol emissions and/or destocked in the immediate area if necessary.	Depends on severity of damage and whether environment or animals are at risk. Immediate action required to make safe.	
Dirty water store damage or overflow	Significant contingency margin across more than one store so overflow risk low. If risk of leak/overflow identified and a) can't be made safe immediately or b) can't be applied to land due to closed periods, weather, ground conditions or other factors; then the dirty water will be removed by tanker and exported to nearest alternative store.	If any risk of pollution, immediate action must be taken to remove risk.	
Pipework damage	Stop or prevent flow of contaminated water and repair/replace damaged pipe. Contain any leak as far as possible. Contact the Environment Agency if there is any risk of pollution identified.	Immediately stop potential for leak. Replace/repair pipe asap. Time frame depends on dependency on pipe.	

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Summary

Dust and bio-aerosols are assessed daily by operators. Air quality within the buildings is also assessed (sensory assessment). Weather monitoring/forecasting, also help to assess the risks and take additional actions to mitigate them if necessary.

We have always worked hard to minimise our impact on our closest receptors. We continually assess management techniques to improve our control of emissions.

In accordance with guidance, we will review the effectiveness of our control measures at least once a year and in the light of any building and management changes and on the outcome of investigations into the causes of any future complaints, if any occur.

Any complaints will be recorded and investigated using the guidance from EPR 6.09 3.1 and 3.2 odour and emissions management on intensive livestock installations.

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Intensive Farming Complaints Form		
Name of Farm		
Time and Date of Complaint		
Name and Address of complainant		
How complaint was received, e.g. telephone call, visit, etc.?		
Email address of complainant		
Who first received the complaint?		
Telephone number of complainant		
Who was the complaint reported to for further action?		
Type of complaint (give all relevant details – use space overleaf if necessary)		
Describe the activity which was happening at the time of the complaint (include names of any relevant staff)		
Any other relevant information		
Are there any other complaints relating to the installation or that location? (If yes, give details)		
Actions taken and by who		
Form completed by	Signed	Date