

<b>Quarry Hill Farm</b>	<b>Environmental Management System</b>		
	<b>EM xx DUST AND BIO AEROSOL MANAGEMENT PLAN</b>	<b>Version No:</b>	<b>1</b>
		<b>Issue Date:</b>	<b>19.11.24</b>
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### **Purpose / Objectives**

The objectives of this Dust and Bioaerosol Management Plan (DBMP) are -

- Identify all possible Dust and Bioaerosol sources at the facility;
- Outline the Dust and Bioaerosol prevention control and mitigation measures employed on site;
- Ensure all operating conditions (normal, abnormal and emergency) are considered in evaluating the risk of Dust and Bioaerosol release;
- Commit to pro-actively monitoring Dust and Bioaerosol emissions and preventing foreseeable potential impact on receptors, if deemed necessary.
- Reduce the risk of Dust and Bioaerosol releasing incidents or accidents by anticipating them and planning accordingly.
- Describe the contingency arrangements in place to prevent or react effectively to Dust and / or Bioaerosol releases.

### **Management Plan Format**

The structure of this management plan is as follows:

***Site Setting and Receptor Identification*** -Summary of site setting listing sensitive receptors within 100 metres, (the threshold set by EA in terms of a DBMP), of the Permit Boundary of the installation. The DBMP will be used by Site Management when reviewing Dust and Bioaerosol source impacts and / or responding to complaints.

### ***Source Materials and Dust / Bioaerosol Release Inventories –***

- Table 3 lists potential dust and bioaerosol sources, together with descriptions, location and key control measures and procedures in place to minimise the possibility for dust and bioaerosol generation from site.
- Potential impacts from the dust Sources listed in Table 3 are assessed and outcomes detailed within document AH-R02-F1- Environmental Risk Assessment (ERA). In summary, the dust and bioaerosol impact assessment details:
  - The potential dust and bioaerosol releases from site under normal operation.
  - The control measures employed by site to minimise the potential dust and bio-aerosols;
  - Abnormal scenarios leading to potential dust and bioaerosol releases; and
  - Contingency plans in the event of abnormal scenarios occurring.

***Monitoring and Evaluation*** – This section of the DBMP details the dust and bioaerosol monitoring undertaken at site and complaint procedures should a dust / bio aerosol complaint received.

Environmental Management System (EMS) references to all associated EMS documentation are used throughout the DBMP. The 'EM 00 System Index' should be consulted to cross reference to the current Issue Number / Date.

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**Audit and Review**

Site Management will review the effectiveness of the DBMP and associated procedures based on the frequency stipulated by the Environmental Permit or when the following occurs:

- Upon receipt of a series of sustained complaints linked by Site Management or the Regulator to deficiencies in this DBMP;
- Significant change to site infrastructure or operating techniques.

Reviews of the DBMP and associated procedures are recorded on the EM 03-006 Audit and Document Review Form. Any improvements put into practice in terms of 'on-site' dust and bio-aerosol control techniques, will be implemented and recorded on the EM 03-001 Incident and Corrective Action Report Form.

**Guidance**

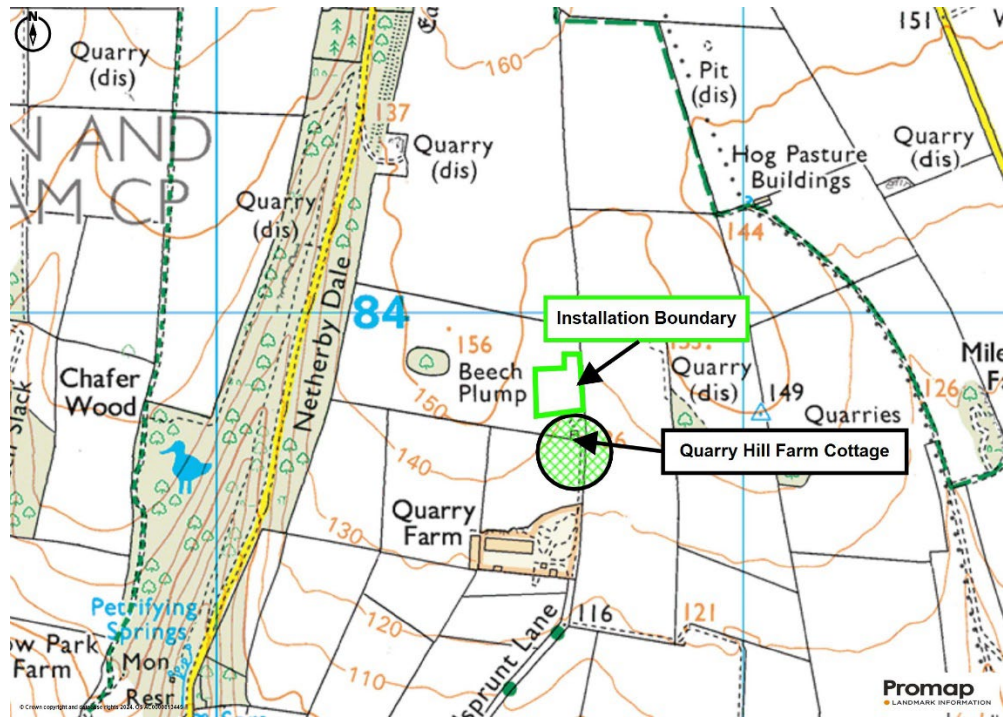
Table 1 outlines the sector guidance documents, and their relevant BAT requirements, considered when developing the DBMP. Table 1 will be updated as appropriate during the review process to ensure current Environment Agency guidance is applied.

<b>Table 1 - Guidance</b>		
<b>Reference</b>	<b>Title</b>	<b>Version</b>
How to comply with your environmental permit for intensive farming	Appendix 11 - Assessing dust control measures on intensive poultry installations	V1 - March 2011
AHDB Pork Model Template B3.58B	Environmental Risk Assessment Dust and Bioaerosols Management Plan	-

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**Site Setting and Receptor Identification**

The installation is approximately 0.90 hectares in size. The National Grid Reference for the centre of the site is SE 90660 83851. The proposed installation is approximately 1.6 km North West of the Village of Snainton, Scarborough, North Yorkshire, As shown on the Receptor Plan below, the nearest human occupied sensitive receptor is Quarry Hill Farm Cottage, located approximately 55 metres to the South of the Site. This is the only human occupied receptor within a 100m radius of the installation boundary.



**Do Not Scale**

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<b>Table 2 – Source Material Inventory</b>			
<b>Source of Dust Bioaerosols</b>	<b>Site Area</b>	<b>How is reduction achieved?</b>	<b>Mechanisms to Evidence the Dust / Bioaerosol Controls are Actioned / Checked and Necessary Records Produced</b>
General	Dust generated from Day-to-day activity.	Weekly inspection of the site by the operator to look for any signs of dust which may leave the installation boundary and impact on identified sensitive receptors and / or be a hazard to staff or visitors.	EM 03-001 Incident and Corrective Action Forms would identify any evidence of dust / particle build up where corrective action would be required.
Pig feed	Dust from silos discharge during delivery of feed.	Only dry feed pellets used as feed on site. Feed delivered to contained silos.	EM 03-001 Incident and Corrective Action Forms would identify any evidence of dust / particle spills from feed delivery and supply to livestock and instigate the necessary corrective action.
	Storage of feed	Feed stored in silos to minimise any potential for dust. Silo integrity confirmed as part of Site Inspections.	
	Feed spill control	Clean up of any spilt feed is undertaken to avoid dust being generated. This is good management practice and avoids possible pollution into a watercourse.	EM 02-003 Spill Control Procedure implemented to clean spills.
	Feeding method	Feed delivered directly from silo into the bin.	EM 03-001 Incident and Corrective Action Forms would identify any evidence of dust / particle build up where corrective action would be required.
	Spilled feed is swept up	Any spillages are cleaned up immediately. Housing cleaned down to meet animal welfare requirements as pigs rotated.	EM 02-003 Spill Control Procedure implemented to clean spills.
	Flooring system	No bedding used on site. Pigs housed on a fully slatted system.	-

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<b>Source of Dust Bioaerosols</b>	<b>Site Area</b>	<b>How is reduction achieved?</b>	<b>Mechanisms to Evidence the Dust / Bioaerosol Controls are Actioned / Checked and Necessary Records Produced</b>
Ventilation	Ventilation is carefully controlled, maintained and monitored to meet animal welfare requirements and to ensure efficient productivity.	<p>Ventilation is set to optimum levels by operatives and maintained under service contract.</p> <p>Pigs require careful control of airflow over them as they can be easily disturbed by draughts.</p> <p>Increased ventilation with fans is often used in summer months.</p> <p>Weekly inspection by the operator and any visible dust on fans, vents, etc. is removed.</p>	<p>EM 01-006 – Planned Preventative Maintenance programme ensure environmentally critical kit is maintained as per manufacturer’s instructions.</p> <p>EM 03-001 Incident and Corrective Action Forms would identify any evidence of dust / particle build up where corrective action would be required.</p>
House cleaning	General management	<p>Good house cleaning between batches is essential to reduce the volume and potential for air contamination within the house and via exhaust system.</p> <p>Care is taken to avoid dust accumulation around exhaust vents. Cleaning takes place in such a way that does not cause a release of dust to air or water, eg dust is not blown off-site or washed into surface water drains.</p>	Site Inspection Forms will confirm cleaning has been completed to satisfactory standard.
Building layout and design	Housing is designed to minimise the effect of high winds	<p>Specification and design of ventilation system to provide good air quality for the animals and staff. Housing system fully enclosed.</p> <p>Fabric of the building is inspected as part of site inspections to ensure it is well maintained.</p>	Housing has been designed by a suitably qualified contractor.

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<b>Source of Dust Bioaerosols</b>	<b>Site Area</b>	<b>How is reduction achieved?</b>	<b>Mechanisms to Evidence the Dust / Bioaerosol Controls are Actioned / Checked and Necessary Records Produced</b>
Slurry Systems	Slurry Storage	No solid manure store on farm. Slurry stored in covered above ground store. Slurry store fitted with a floating cover and only stirred as required. By maintaining the required freeboard ensures wind velocity and air exchange on the slurry surface is minimised.	EM 01-006 – Planned Preventative Maintenance programme ensure environmentally critical kit is maintained as per manufacturer’s instructions. Site Inspection Form would identify and issues with the slurry storage systems.

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**Monitoring / Corrective Action and Response**

**Monitoring** - The ERA has set out that the potential for dust emissions from site to impact on identified receptors is insignificant. Therefore, routine dust / bioaerosol monitoring is not considered necessary.

**Incident and Corrective Action** - Any faults or deficiencies encountered on-site with regards to infrastructure and where procedures could not be carried out are detailed using an incident and corrective action reporting structure and recorded on EM 03-001 Incident and Corrective Action Report Form. This will instigate appropriate level of management commitment to ensure corrective action is undertaken. A review of the corrective action will be included to ensure satisfactory completion and senior management sign-off.

**Complaints** – All environmental complaints are dealt with by the EM 02-005 Communication & Complaints Procedure. The procedure deals with how to manage complaints and ensures that all relevant communications can be dealt with appropriately. The procedure outlines the requirements to communicate effectively with Regulators and any other interested parties and also internal staff.

**Interpretation of Monitoring Results and Complaint Records** – Site Management will review all Incident and Corrective Action and Complaint Records to ensure good evidence is provided that corrective actions have been implemented to ensure control measures are in place and are working as intended. These reviews will be recorded on the EM 03-006 Audit and Document Review Form.

**Community Engagement** – A member of Site Management will always be available to liaise with Regulators / general public during shutdowns and other abnormal situations.