Odour Management Plan

Erection of a free range egg production unit including silos and all associated works

Prepared for M A Webber

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1.0 Potential Odour Sources

The following sources have been identified as contributing to a potential medium – high risk odour source:

Odour emissions from compound feed selection
Odour emissions from feed delivery and storage
Odour emissions from ventilation techniques
Odour emissions from litter conditions and management
Odour emissions from fluctuations in bird stock densities (growth curves)
Odour emissions from drinking water systems
Odour emissions from de-stocking
Odour emissions from cleanout (litter removal)
Odour emissions from dirty water generation and storage (washout)
Odour emissions from litter/manure
Odour emissions from dust build up.

2.0 Pathways and Receptors

The pathway for all of the above sources would be via the atmosphere, with the most sensitive receptors being inhabitants of nearby residential dwellings, the wind direction will significantly influence how receptors are effected.

3.0 Receptors

List of potentially affected properties from airborne odour issues

1) The Old Granary – not upwind of the development
2) The Byre – not upwind of the development
3) Long Barn – not upwind of the development
4) Windsong Barn – not upwind of the development
5) Castle Cottage – not upwind of the development
6) High Meadow – not upwind of the development
7) Wellsworth – not upwind of the development

4.0 Person Responsible

It is the responsibility of the duty manager to ensure that this plan is adhered to and followed at all times.

It is also the responsibility of the manager to investigate any and all complaints diligently, to take any remedial action and to review this plan.

The results must be reported both to the company and to the complainant.

A complaint form is attached at the end of this plan.

5.0 Introduction

This plan has been prepared as part of a planning application for a 32,000 free range egg production unit as there are sensitive receptors within 400 metres of the installation. The following table sets out: -

- The likely sources of odour arising from the poultry unit
- The procedures planned at Castle Farm in order to prevent or minimise odour levels.

Typical Odour Sources and Actions Taken to Minimise Odours

Odour Related Issue	Potential sources of Risks and Problems	Actions taken to minimise odour and odour risks at Castle Farm	Completion date
Manufacture and selection of feed	• Milling and mixing of compound feeds. • The use of poor quality and odorous ingredients • Feeds which are 'unbalanced' in nutrients, leading to increased excretion and litter moisture and emissions of ammonia and other odorous compounds to air.	• Reduce protein content of feed in accordance with H2C • No milling will take place on site • Mixing of whole wheat would take place in a sealed steel building • Feed specifications are prepared by the feed compounder's nutrition specialist • Feed is supplied only from UKASTA accredited feed mills, so that only approved raw materials are used • Avoid fine grinding of feed • Follow good housekeeping and clean up spills • Feed deliveries monitored to avoid dust or spills	In place

		• Enclosed handling, storage and on site transport • When moving feed, avoid drops and open chutes • Relocation of any odorous activities, storage or extraction points from buildings • Avoidance of and immediate treatment of any pests e.g. mealworms	
Feed delivery and storage	• Spillage of feed during delivery and storage • Creation of dust during feed delivery	• Feed delivery systems are sealed to minimise atmospheric dust • Any spillage of feed around the bin is immediately swept up • The condition of feed bins is checked every 7 weeks so that any damage or leaks can be identified and repaired. The manager will ensure that any faulty bin is repaired ASAP • Feed deliveries are monitored to avoid dust and spills	In place
Ventilation	• Inadequate air movement in the house	• The ventilation system is regularly adjusted according to the age and	In place

		requirements of the flock • The ventilation system is designed to efficiently remove moisture from the house • Twice daily checks of the house are made • Minimal ventilation will be used during destocking consistent with bird welfare	
Litter management	• Odours arising from wet litter (see above) • The use of insufficient or poor quality litter • Spillage of water from drinking systems • Disease outbreaks, leading to wet litter	• Controls on feed and ventilation (see above) help to maintain litter quality Additional controls include: • Use of nipple drinkers to minimise spillage • Daily checks of drinkers are undertaken to avoid capping • Insulated walls and ceilings to prevent condensation • Concrete floors to prevent water ingress • Stock density at optimal levels to prevent overcrowding • Addition of more clean, dry bedding material, inspection carried out daily. Any	In place

		signs of capping or greasiness will result in action being taken • Use of a health plan, with specialist veterinary input used as necessary.	
House Clean Out	• Creation of dust associated with litter removal from houses • Use of odorous products to clean houses	• Clean out contained to avoid odours • Buildings sealed during and/or after cleanout • Separate collection system for wash water • Litter is carefully placed into trailers positioned at the entrance to the house. When full, the trailer is covered and leaves site ASAP • Litter is removed every 5-7 days without causing excessive odour • Whole site wash down completed in 7 days • Minimal ventilation will be used • Only Defra approved detergents and disinfectants are used • Wash water tanks hold one complete wash down • Wash water tanks are emptied to	In place

		avoid overflowing as soon as practical after wash down complete • Clean out takes place as soon as possible after destocking.	
Used litter	• Storage of used litter on site • Transport of litter and applications to land	• There is no storage of used litter on site at any time • Litter is transported in covered trailers • There is no double handling • Some litter is spread to land which is controlled by the same business, there is a manure management plan and will be spread in line with the Code of Good Agricultural Practice.	In place
Dirty water management	• 'Standing' dirty water during the production cycle or at clean out • Applications of dirty water to land	• Some areas around the house are concreted, others are grassed over and remain clean during the production cycle • All clean-out, dirty water is directed to underground tanks for storage • The dirty water tank is inspected at least twice per day during wash down to ensure	In place

		that it does not overflow • Dirty water spread to land owned by the same business will be spread in line with the Code of Good Agricultural Practice. The business has a manure management plan. • Dirty water drains are inspected annually by the duty manager. Any fault is immediately repaired.	
Complaints	• Odour • Noise • Other	• The duty manager is responsible for taking details of the compliant as per the Complaint Form • The complaint will be investigated immediately • Remedial action will be taken immediately • This plan will be reviewed • The findings of the investigation, the action taken and any changes to this plan will be reported to both the complainant and to the company	

	• Remedial/contingency measures	• Identify cause • If due to damp/wet litter add more fresh dry litter and/or/both increase ventilation rate depending on the severity • Use odour suppressants if appropriate	

The site uses high velocity ridge fans for all minimum ventilation purposes which will achieve the greatest dispersion of any air/odour that is vented out of the building, these fans are located in the ridge to achieve this objective. The air is drawn in using side vents, due to the design of the roof space and the positioning of the fans this creates a circular movement of air within the shed helping to keep the litter dry and prevent wet litter and hence any odour issues.

All staff have training in Environmental Management which includes site and house maintenance, this includes the management of the litter covering inspection and remedial action.

Birds will not stay on the farm longer than as been agreed unless it is beyond the control of the company e.g. Avian Influenza.

The site has an emergency generator which starts automatically in the event of a power outage. The alarm system warns the duty manager of this event. The site will have 2 members of staff with one always on call. This ensures that the house is always ventilated preventing the buildup of odour.

The house is continually monitored for humidity and temperature, the highs and lows are recorded each day, this monitoring also causes the computer system to increase ventilation and or more heating helping to prevent odour issues.

Complaints Form

Nature of Complaint; Odour Noise Other (specify)	
Farm Name; Castle Farm	Date recorded
Name and Address of Complainant	
Phone number of complainant	
Time and Date of Complaint	
Date, time and duration of nuisance	
Complainant's description of nuisance	
Any other comments about the nuisance	
Weather conditions	
Wind strength and direction	
Any previous complaints relating to this complaint	
Any other information	
Potential sources that might lead to complaint	
Operating conditions at time of nuisance	
Action taken	
Follow up; Time and date complainant contacted	
Any changes to operating procedures	
Form completed by	Sign and Date

6.0 Fly Control

6.1 Monitoring

The following arrangements for monitoring adult flies and larvae will be put in place and maintained throughout the lifetime of the building.

6.1.1 30cm x 30cm squares of sticky fly paper will be placed at 6 locations throughout the building. The numbers of flies stuck to the paper each week will be counted and recorded, and the flies identified. This will be carried out every week from 1st March to 1st December each year. The results will be recorded on a table or in graph form to enable trends to be recognised. Where the total number of flies recorded exceeds 20 in one week, additional control measures will commence and continue until the numbers drop below 20.

6.1.2 A 15cm x 15cm sample (1 trowel full) of the top 5cm of manure from 6 locations distributed throughout the building will be removed for examination, the first sample being taken 21 days after re-stocking and subsequent samples every 7 days thereafter, but only between 1st March and 1st December. The number of live house fly larvae shall be counted and identified and the results tabulated or recorded on a graph. The presence of live larvae indicates need for additional control measures.

6.1.3 In the egg packing room red stripe sticky fly paper rolls will be hung up and 30cm pulled down each week. The number of flies each week will be recorded. If numbers exceed 20 additional treatment will be carried out in the form of adulticides, baits and/or larvicides as appropriate until the numbers drop below 20.

6.2 Control

The following arrangements for controlling adult flies and larvae will be put in place and maintained throughout the lifetime of the building.

6.2.1 A proprietary larvicide will be applied to the litter at the first signs of any infestation of larvae and a programme of re-treatment will be continued as recommended by the manufacturer in order to control and reduce the number of fly larvae within the manure. The larvicide will be applied in solution evenly across the surface of the manure in the event of a widespread infestation, and the manure will not be removed for at least 3 days to prevent live larvae being taken off-site.

6.2.2 An adulticide will be applied within the shed at the first signs of adult fly emergence and a programme of re-treatment will be implemented as recommended by the manufacturer in order to control and reduce the numbers of flies emerging from the poultry shed.

6.2.3 Additional knock down treatment measures such as electronic fly killers and residual insecticides will be used within the egg packing rooms and elsewhere

within the curtilage of the site at any time when the control measures specified in 6.2.1 and 6.2.2 have not been entirely effective.

6.2.4 Where it is reasonably practicable to do so, any chemicals selected to carry out the treatment specified above will be alternated with other similar products with a different active component in order to reduce the potential for pesticide resistance to develop.