Odour Management Plan Marlbrook Hall Farm

The following plan has been prepared as part of the EPR permit application.

The following tables highlight the likely sources of odour arising from Barn Egg production at Marlbrook Hall Farm.

Actions and measures are listed that will prevent where possible or minimise odour emissions at Marlbrook Hall Farm.

Site plan shows all material storage areas and potential odour emission sources.

Plan to be reviewed every year from permit issue date, prior to any major changes to operations (to ensure effectiveness) or following any complaint, any changes to OMP or other management plans to be documented dated and signed and Area Officer notified.

Actions and preventative measures in OMP referenced from Odour Assessment Document and Fugitive Emissions Assessment in line with the H1 Risk Assessment, to be implemented in conjunction with the following key documents;

Emergency Plan

Technical Standards

Routine Maintenance Schedule

Health Plan

Contingencies

Environmental Management

Key responsibility for the OMP and the referenced plans are the Operator or deputies who have been briefed on the requirements.

Example Odour Complaint form attached.

Marlbrook Hall Farm

Marlbrook Hall Farm consists of four poultry houses for barn egg production. The houses have been sited as far as possible away from nearby receptors. The prevailing wind is from the southwest. Each house will be fitted with air scrubbers reducing all emissions.

The table below lists sensitive receptors within 400m of the site boundary.

Receptor Name	Description	Distance	Orientation	National Grid Reference
Dwelling	Residence	367m	North	343691,271419

Odour Related Issue	**Potential Risks and Problems**	**Actions taken to minimise odour and odour risks at Marlbrook Hall Farm**	**Completion date**
Barn Egg Production	Odour levels	Twice daily olfactory checks coinciding with stock inspections (normally 07.00-10.00 hrs and 16.00-19.00hrs) (if required) any abnormalities recorded and investigated –	In place

		see contingencies and routine maintenance and inspection schedule.	
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.	Feed specifications are prepared by the feed compounder’s nutrition specialist. Feed is supplied only from UKAS accredited feed mills, so that only approved raw materials are used. Protein is reduced in accordance with SGN EPR6.09 ‘How to comply with your environmental permit for intensive farming’ ‘How to comply with your environmental permit for intensive farming’.	In place

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 frequently so that any damage or leaks can be identified. Feed deliveries are monitored to avoid dust and spills – As per routine inspection and maintenance schedule. See site plan.	In place
Ventilation and Dust	Inadequate air movement in the house, leading to high humidity and wet litter Inadequate system design, causing poor dispersal of odours. Extraction fans located close to sensitive receptors. Dust	All four houses will be fitted with air scrubbing systems. Use of high velocity roof extraction fans for hot weather cooling, checked prior to cycle commencement by qualified electrician who will provide 24hr breakdown cover – See electrical service reports The ventilation system is regularly adjusted to match the age and requirements of the flock. The ventilation system is designed to efficiently remove moisture from the house. Humidity recorded daily and maintained in the range of 55 – 65% keeping a balance of dry litter and avoiding dust production. Stock inspections carried out by trained staff to avoid panicking birds creating dust. Dust levels if present is controlled during cleanout operations - As per routine inspection and maintenance schedule and clean out operations.	In place

Litter management	Odours arising from wet litter (see above).	Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include:- Use of nipple drinkers with drip cups to minimise spillage. Daily checks of drinker height and pressures to avoid capping. Insulated walls and ceilings to prevent condensation. Concrete floors to prevent ingress of water. Stocking levels at optimum to prevent overcrowding. Use of veterinarian bespoke health plan. See health plan	In place
Carcase disposal	Inadequate storage of carcasses on site.	Carcasses placed into plastic sealed bags, stored in freezers away from sensitive receptors. Frequent collection by a licensed agent. Daily levels of mortalities recorded with abnormalities investigated – See health plan	In place

House clean out	Creation of dust associated with litter removal from houses. Use of odorous products during cleaning.	Litter carefully placed into trailers. Trailers sheeted before leaving fill position. Only DEFRA approved and suitable products used. Chemical containers triple washed at point of use. Wash water tank levels monitored during washing and emptied as required to prevent overfill – See Key responsibilities Clean out carried out as soon as possible following destocking. (1 Week)	In place In place
Used Litter	Storage of used litter on site. Transport of litter and land spreading.	No storage on site at any time, belt removal twice weekly with covered trailer/skip removed off site immediately. All trailers sheeted before leaving fill position. Avoidance of double handling. Litter used on operator controlled land and surplus sold to third parties for land spreading.	In place
Washing operations including vehicles	Loss of dirty water to Land or Watercourse	Use of specialist contractors for washing operations. Bespoke terminal hygiene program followed, detailing quantities of water and chemical dilution rates. Key staff monitoring washing operations ensuring effective drainage to dirty water tanks. Dirty water tanks monitored during wash down to maintain freeboard –See Key responsibilities Vehicle washing at designated wash point. All sediment traps and drains cleaned both before and after washing operations – See Inspection and maintenance schedule	In place
Fugitive emissions	Leaks to doors, bin pipes, feed bins, fuel and chemical storage	Checks to feed storage and fill pipes as per routine maintenance schedule. Fuel oil in approved bunded storage tanks. Chemicals – only small amounts of footdip disinfectant held on site in secondary containment	In place

Dirty water management	Standing dirty water during the production cycle or at clean out. Application of dirty water to land.	Working areas around houses are concreted and kept clean during production cycle. At clean out dirty water from houses together with lightly contaminated yard wash is directed to the underground storage tanks (see site plan), before being removed off site and spread to land under control of a separate farming business. Written agreement is in place.	In place
Abnormal operations	Water leak/pipe failure Bird health/sickness	Water consumption monitored daily ensuring early detection, wet area - blanket covered with top up bedding material to prevent increased odour. Veterinarian contacted (24hour cover) Litter covered with fresh top up bedding to minimise increased odour until bird health recovered –See health plan Abnormal events documented, dated and signed, appropriate plans reviewed and updated to prevent reoccurrence ie. Routine maintenance schedule, Technical standards	In place
Waste production/storage	Odour from production or storage areas	No storage or production of odorous waste on site. Waste management plan in force detailing types and quantities produced along with disposal routes. Records kept on site.	In place
Materials/storage	Potential odour source	Feed delivered into sealed vermin proof silos. Sealed delivery system into poultry houses with no milling or mixing on site. Remaining feed at end of cycle stored in sealed silo and used on subsequent cycle. Marked on site plan. 3 month shelf life of feed negating the need for removal. Raw materials inventory recorded and kept on site – See key responsibilities	In place

Complaints Procedure

In the event of a substantiated odour complaint the cause would be investigated, and actions taken listed in the odour/contingency plans to cease the release. Area officer would be notified immediately, a review of the OMP conducted at the earliest opportunity with any changes communicated to Area officer for approval. A complaints report would be filled out and retained on site.

Odour Contingency					
Source	**Potential Cause**	**Trigger Factor with immediate action**	**Mitigation Measures to be implemented and remain operative until cessation trigger verified**	**Additional Mitigation**	**Cessation Trigger**
Feed delivery and storage	Pipe or bin failure causing leak	Daily inspection	Repair to pipe work or feed bin with immediate effect, use other bins, spills cleaned up immediately. Integrity of pipe work and bin checking frequency reviewed and updated in routine maintenance and inspection document, with changes recorded and dated.	Bin/pipework replaced	Visual inspection
Carcase storage and disposal	Freezer failure/damage	Daily Inspection	Carcases removed from damaged freezer into additional	N/A	Visual Inspection

			freezer, damaged freezer replaced/repaired immediately.	Alternative collection implemented	
Variations in stocking density/bird growth	Rapid bird growth or poor growth due to illness.	Deviation in predicted growth	Bird growth monitored Daily Ventilation and heating controls advanced to account for additional live-weight within house. Veterinarian advice sought immediately for bird illness with additional bedding added to prevent/minimise odour release. Document and record abnormalities. Ensure stocking density complies with BAT standards and bird permit places.	Immediate veterinarian advice sought	Growth rates normal
Air scrubbing systems	System breakdown	Increased odour	Installers providing 24/7 breakdown cover	Spare pump carried on site	Systems fully operational Repairs effected and documented

Ventilation System	Fan/system failure	System fully alarmed	Alternative ventilation fan used as houses have spare capacity installed, electrician call out	N/A	Repairs effected and documented
Drinker systems	Leaky systems/pipe failure	Deviation in expected water consumption	Any leaks isolated and repaired immediately. Wet areas covered with additional bedding to minimise odour. Arrange system integrity testing at cycle end, findings to be documented and recorded, pipe work/system parts to be replaced as per report.	N/A	Normal consumption
Bird depletion	Fugitive odour release	OMP monitoring	Minimum ventilation rate to prevent fugitive release of odour, review OMP with any changes documented and recorded and submitted to Environment Agency	N/A	OMP monitoring recording reduced low levels

			Area Officer for approval.		
Litter Removal	Fugitive odour release from poultry houses	Raised odour levels during OMP monitoring	Minimum ventilation rate to prevent fugitive release of odour, review OMP with any changes documented and recorded and submitted to Environment Agency Area Officer for approval.	Review of littering out procedures	OMP monitoring levels returned to normal
Washing operations/dirty water	Odour release from drainage/storage Delay in dirty water removal	Raised odour levels during OMP monitoring Washing procedure monitoring	Arrange drainage integrity testing and drain cleaning, record and document findings. Dirty water tanks filled with clean water and agitated prior to removal to remove any possible sediment/stagnation. Washing operations suspended, agreement with neighbouring farms for dirty water removal	Ventilation rates decreased Licensed waste disposal contractor used preventing extended	OMP monitoring levels normal Normal washing resumed after visual inspection

	Blocked drains		Blockage cleared	storage requirement Specialist drainage contractor called out	
Litter/manure	Wet litter	Raised odour levels during OMP monitoring	Additional bedding applied to maintain dry friable litter. Initiate olfactory checks to ensure effectiveness.	Additional ventilation implemented to dry litter	OMP monitoring levels normal

Key Responsibilities

Task	**Staff position responsible**
Olfactory checks	Manager
Overseeing/monitoring feed deliveries	Manager/Assistant
Sweeping feed spillages	Lorry driver/ Assistant
Feed bin and pipe integrity checks	Manager/Assistant
Adjusting ventilation	Manager/Assistant
Stock inspections	Manager/Assistant

Daily checks on drinker heights and pressures	Manager/Assistant
Air scrubber operation	Manager/Assistant
Carcase disposal	Manager/Assistant
Integrity checks for carcase containers	Manager/Assistant
Monitoring wash tank levels and organising tank emptying	Manager/Assistant
Cleaning of sediment traps/drains	Manager/Assistant
Monitoring of water consumption for leak detection	Manager/Assistant
Documenting/reviewing abnormal events	Manager
Reviewing annual plans	Manager
Complaints Log	Manager

Monitoring Procedure

Procedure

Monitoring is carried out weekly, by means of “sniff testing” at the monitoring points by persons not involved directly with the operations at the installation.

Monitoring will be carried out weekly at the installation boundary

All records will be securely stored and held on site for inspection.

Monitoring will be by means of self-assessed “Sniff Testing” by person/persons not normally working on the poultry installation.

Severity Scoring

0 – No Odour Detected

1 – Low Intermittent Odour Detected

2 – Low Continuous Odour Detected

3 – Medium Odour Detected

4 – High Odour Detected

5 – Very High Odour Detected

In the event of odour scores of 3, 4 or 5 being recorded the site staff will be alerted to implement contingency measures. Retesting at the installation boundary will be conducted following any actions implemented to ensure the effectiveness of recorded actions implemented.

Monitoring procedure/frequency to be reviewed annually or in the event of a complaint.

OMP to be reviewed annually or following a complaint, or any changes to operations.

Odour Complaint Form

Installation Name	Date Recorded	Reference Number
Name and Address of caller:		
Tel. No. of caller		

Location of caller in relation to Installation	
Time and Date of complaint	
Date, Time and duration of Offending odour	
Has the caller any other Comments about the odour?	
Weather conditions	
Wind strength and direction	
Any previous complaints Relating to this odour?	
Any other relevant information	
Potential odour sources that could give rise to the complaint	

Operating conditions at the time offending odour occurred			
Follow up Date and time caller contacted			
Action taken			
Amendment requirement to Odour Management Plan			
Form completed by		Signed	

Odour management plan to be reviewed annually or following a complaint or any changes to operations.

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