

Odour Management Plan Meadowland Poultry Unit

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

The following tables highlight the likely sources of odour arising from broiler production at Meadowland.

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

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.

Meadowland Poultry Unit

The broilers at Meadowland are housed within the poultry houses where levels of odour would be at their highest concentration.

The prevailing wind is from the southwest with the nearest receptors not in its path.

Consideration has been given, as far as practical, to site the main/odorous operations at the north western end of the installation away from nearest receptors (listed in the table below).

The use of high velocity roof extraction (11m/s) for the ventilation will give better dispersion of odour

A table of receptors have been listed below for the OMP taking the risk of odour into account.

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

Receptor Name	Description	Distance	Orientation	National Grid Reference
Dwelling	Residential	300m	Northwest	348899,326585

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks at Meadowland	Completion date
Broiler Production	Odour levels	Twice daily olfactory checks carried out by persons not directly involved with the installation operations at the installation boundary, coinciding with stock inspections (normally 07.00-10.00 hrs and 16.00-19.00hrs) any abnormalities recorded and investigated.	In place
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

<p>Feed delivery and storage</p>	<p>Spillage of feed during delivery and storage. Creation of dust during feed delivery.</p>	<p>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 No milling or mixing feeds on site.</p>	<p>In place</p>
<p>Ventilation and Dust</p>	<p>Inadequate air movement in the house, leading to high humidity and wet litter</p> <p>Inadequate system design, causing poor dispersal of odours. Extraction fans located close to sensitive receptors.</p> <p>Dust</p>	<p>Use of high velocity roof extraction fans on all houses to aid dispersion, checked prior to cycle commencement by qualified electrician who will provide 24hr breakdown cover – electrical service reports held on site. 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. Houses 1 & 7-9 will be fitted with air scrubbing systems reducing levels of odour and dust. Dust levels if present is controlled during cleanout operations.</p>	<p>In place</p>

Litter management	Odours arising from wet litter (see above).	<p>Controls on feed and ventilation (see above) help to maintain litter quality.</p> <p>Additional controls include:-</p> <ul style="list-style-type: none"> 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 and Incineration	Inadequate storage of carcasses on site.	<p>As a minimum poultry houses are walked twice daily for the removal of any fallen stock, these carcasses are placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors.</p> <p>Frequent collection of carcasses (2/3 times per week).</p> <p>Daily levels of mortalities recorded with abnormalities investigated</p>	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 close to poultry house doors. 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 overflow Houses sealed immediately following destocking awaiting de littering. Minimum ventilation rate in operation during de littering. Houses sealed immediately following de littering awaiting washing operations. Clean out carried out within 24hrs following destocking. Site de littered within 48hrs.	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, removed off site immediately. All trailers sheeted before leaving fill position. Avoidance of double handling. All litter is sold.	In place
Washing operations	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. Site washed within 48hrs of de littering. Key staff monitoring washing operations ensuring effective drainage to dirty water tanks.	In place

		Dirty water tanks monitored during wash down to maintain freeboard – 3 Times per day	
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 by means of gradients preventing any runoff, to the underground storage tanks (see site plan), before being removed off site and spread to land immediately following completion of washing operations, under control of a separate farming business. Written agreement is in place. This will prevent any stagnation of dirty water being an odour source.	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	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 Cleaning chemicals supplied and used by cleaning contractor not stored on site.	In place

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	Storage container failure/damage	Daily Inspection	Carcases removed from damaged container into additional container, damaged container replaced/repared immediately.	N/A	Visual Inspection
Variations in stocking density/bird growth	Rapid bird growth or poor growth due to illness.	Deviation in predicted growth	<p>Bird growth monitored Daily</p> <p>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.</p>	Immediate veterinarian advice sought	Growth rates normal

Ventilation System	Fan/system failure	System fully alarmed	Alternative ventilation fan used, 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	Raised odour levels	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.	N/A	Low odour level

Litter Removal	Fugitive odour release from poultry houses	Raised odour levels	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	Low odour level
Washing operations/dirty water	Odour release from drainage/storage Delay in dirty water removal Blocked drains	Raised odour levels 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 Blockage cleared	Ventilation rates minimised Licensed waste disposal contractor used	Low odour level Normal washing resumed after visual inspection

				Specialist drainage contractor called out	
Litter/manure	Wet litter	Raised odour levels	Additional bedding applied to maintain dry friable litter. Initiate olfactory checks to ensure effectiveness.	Additional ventilation and heating implemented to dry litter	Low odour level

Odour Monitoring

The installation currently does not conduct any formal monitoring. In the event of substantiated odour complaints being received the operator will implement formal monitoring with the procedure to be agreed with Area Officer.

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.

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 Complaint Form

Installation Name	Date Recorded	Reference Number
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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	