**Odour Management Plan Staxton Hens**

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

The following tables highlight the likely sources of odour arising from Free range layer production at Staxton Hens.

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

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.

**Staxton Hens**

Staxton Hens consists of a poultry house for free range egg production. The house has been sited as far as possible away from nearby receptors. The prevailing wind is from the southwest.

The Free-Range Layers at Staxton Hens are housed within the poultry house where levels of odour would be at their highest concentration. As the birds range the intensity of odour is reduced considerably as the birds spread out over the range area having the capability of occupying 4 meters’ square per bird. This then reduces the risk of Odour intensity to receptors close to the site boundary as the majority of birds would be unlikely to range more than 75-100m from the housing. A table of receptors have been listed below for the OMP taking the risk of odour into account.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Receptor Name | Description | Distance | Orientation | National Grid Reference |
| Dwelling | Residential | 390m | North | 500736,478816 |
| Dwelling | Residential | 370m | North | 500775478820 |
| Dwelling | Residential | 369m | North | 500816,478837 |
| Saxton Wold Farm | Residential | 290m | South | 500990,477483 |

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| --- | --- | --- | --- |
| **Odour Related Issue** | **Potential Risks and Problems** | **Actions taken to minimise odour and odour risks at Staxton Hens** | **Completion date** |
| Free Range 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 – see contingencies and routine maintenance and inspection schedule. | 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 |

|  |  |  |  |
| --- | --- | --- | --- |
| 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 | Use of high velocity roof extraction fans on new houses to aid dispersion, 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 |

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| --- | --- | --- | --- |
| 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 |

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| --- | --- | --- | --- |
| 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 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.

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| --- | --- | --- | --- | --- | --- |
| **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 freezer, damaged freezer replaced/repaired immediately. | N/A  Alternative collection implemented | Visual Inspection |
| 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 |
| 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 Area Officer for approval. | N/A | OMP monitoring recording reduced low levels |
| 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  Blocked drains | 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  Blockage cleared | Ventilation rates decreased  Licensed waste disposal contractor used preventing extended storage requirement  Specialist drainage contractor called out | OMP monitoring levels normal  Normal washing resumed after visual inspection |
| 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 |
| 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.

**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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