**Odour Management Plan**

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

The following tables highlight the likely sources of odour arising from pullet production at Kirkburn Grange Farm Poultry unit. Actions and measures are listed that will prevent where possible or minimise odour emissions at Kirkburn Grange Farm Poultry unit. 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

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.

# Introduction

There are sensitive receptors around Kirkburn Grange Farm Poultry Unit, the poultry houses have been constructed to BAT standards. The prevailing wind is from the south west this helps to minimise Odour to sensitive receptors that are located around the site with the exception of those located to the north east.

The sighting of main operational activities will be taken in to consideration, sighting where practical away from closest sensitive receptors to minimise impacts of them.

The table below lists all sensitive receptors with 400m.

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| Receptor  Name | Description | Distance | Orientation | National Grid  Reference |
| Residence | Operator farmhouse | 60m | South | 496699,456936 |
| Sandy Pit cottages | Residential | 320m | North East | 497260,457841 |

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| **Odour Related Issue** | **Potential Risks and Problems** | **Actions taken to minimise odour and odour risks at Kirkburn Grange Farm Poultry Farm** | **Completion date** |
| Broiler Production | Odour levels | Twice daily olfactory checks coinciding with stock inspections (normally 07.00-10.00 hrs and 16.00-18.00hrs) any abnormalities recorded and investigated – see Kirkburn Grange Farm contingency plan and as per routine inspection and maintenance 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. | No on-site milling and mixing.  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.  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 twice weekly so that any damage or leaks can be identified, if any bin is damaged or leakages are found then the bin will not be used until repaired, production should not be affected due to multiple bins. Feed deliveries are monitored to avoid dust and spills – As per routine inspection and maintenance schedule. | In place |

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| Ventilation and heating Systems/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 to aid dispersion, checked prior to cycle commencement by qualified electrician who will provide 24hr breakdown cover seven days a week 365 days per year (Welfare requirement)  Stock inspections carried out twice daily (normally 07.00-10.00 hrs and 16.00-18.00hrs) (welfare requirement). This will be carried out by trained staff to avoid bird disturbance reducing dust creation.  The ventilation and heating system is regularly adjusted to match the age and requirements of the flock.  Gable end fans operated only during hot weather to aid cooling, typically operated when temperature reaches 30 C inside the poultry houses with birds aged 30 days or more.  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. | 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. | In place |

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| Carcass disposal | Inadequate storage of carcasses on site | Carcasses placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors. Frequent (3/5 times per week) incineration of carcasses.  Vermin proof containers are checked Daily whilst in production for leakages or damage, any damage or leakage found then container will come out of use until repaired or replaced, production should not be affected due to multiple containers.  Vermin proof containers are washed and disinfected following site depletion also when any heavy odour detected by staff. Washings directed to dirty water tank.  Daily levels of mortalities recorded on crop charts with all abnormalities investigated. | In place |
| House clean out | Creation of dust associated with litter removal from houses  Use of odorous products during cleaning.  Odour release during or pre litter removal. | Litter carefully placed into trailers positioned close to 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 overfill.  Litter out carried out within 24 hours following destocking per house (48 hours total for site) Litter removal carried out within 24 hours of bird depletion per house.  Houses will be de littered starting within 24 hours of bird depletion.  Litter removal per house approximately 4 hours duration.  Houses sealed awaiting litter removal operations. | In place  In place  In place |

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|  |  | Minimum ventilation rate compliant with health and safety operated during litter removal. |  |
| Used litter | Storage of used litter on site. Transport of litter and land spreading. | No storage on site at any time.  All trailers sheeted before leaving fill position. Avoidance of double handling.  Litter sold, amounts recorded. | In place |
| Washing operations including vehicles | Loss of dirty water to land or watercourse | Use of specialist contractors for washing operations.  Exhaust vents are soaked to prevent release of dust.  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.  Any blockages found are immediately rectified. Dirty water tanks monitored during wash down to maintain freeboard.  Washing/disinfection operations completed within three days of de-littering.  Vehicle washing at designated wash point with wash water diverted to dirty water tank.  All sediment traps and drains cleaned both before and after washing operations, all sediment is  removed with litter. | 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 twice weekly.  if any bin is damaged or leakages are found then the bin will come out of use until repaired, production should not be affected due to multiple bins  Fuel oil in approved bunded storage tank. | In place |

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| 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, with the use of sloping concrete and kerbs to prevent run off. The dirty water tank is emptied pre wash and immediately after wash of the cycle end being removed off site and taken to a licensed disposal point.  The dirty water collection systems are cleaned out as part of the cycle end wash. | In place |
| Abnormal operations | Water leak/pipe failure  Bird health/sickness | Water consumption monitored daily ensuring early detection, if a water leak has occurred leak is isolated where possible nearest to the leak then repaired. 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 increase in odour until bird health recovered. 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.  3 month shelf life of feed negating the need for | In place |

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|  |  | removal.  Chemicals in secure bunded shed free from frost  and unauthorised entry together with any veterinarian products/medicine |  |

## Monitoring procedure

**No monitoring currently undertaken, If substantiated complaints are founded then monitoring to take place on site to identify source of issue immediate action to be taken to minimise / rectify Source.**

**Complaints Procedure**

**In the event of odour complaints being received, as well as notifying Environment Agency Area Officer and recording the complaint, operator will visit area from where complaint has been received from.**

In the event of an odour complaint being received the following steps will be followed with the information being recorded on the Complaint recording form, this will be the responsibility of Operator/Site Manager. Farm sign will be displayed at site entrance or nearest point of public access with 24 hour contact details.

1. Name and address of complainant along with contact details
2. Nature of the complaint
3. Time and date of occurrence
4. Weather conditions at that time (wind direction, temperature and humidity)
5. Operational Data (eg. During production cycle, age of birds, litter conditions, de-littering, wash-down, disinfection)
6. Actions taken following investigation
7. All complaints will be logged in Complaints Record file held on site for inspection.

**Contingency Measures for Kirkburn Grange Farm Poultry Unit**

**The following contingency measures are included in the farm operations.**

**Feed storage – See Emergency Plan**

**Power failure – See Emergency Plan Fire – See Emergency Plan**

**Flood – See Emergency Plan**

**Major Bird Loss – See Emergency Plan Water supply Failure – See Emergency Plan**

**Litter/Wash Water Removal – Agreement with neighbouring farms for removal**

**Littering Out – Houses sealed immediately following bird depletion awaiting commencement of de-littering, ventilation during de-littering operated at a minimum to comply with health and safety constraints.**

**Washing Operations – Operator is in frequent contact with washing contractor in the event of being unable to begin washing on pre-booked date a second contractor would be used with no disruption to planned washing timetable, ensuring continuation of cycles with no impact on potential odour release.**

**Carcass Disposal – Site has the facility for Incineration of carcasses, if a secondary approved renderer was required for the collection of carcasses.**

**Staff shortage – Contract Labour.**

**Bird Collection – Integrator would organise alternative collection Feed – Agreements with other Integrators to supply feed**

**Waste – Other types of non-odorous waste safe to remain on site awaiting Collection**

**Adverse weather conditions road closures – Monitored daily by Integrator with bird collection delayed or brought forward.**

**Site closure during operations is not practicable due to potential welfare issues with intensive livestock installations.**

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| **Odour Contingency** |  |  |
| **Source** | **Potential Cause** | **Mitigation** |
| Feed delivery and storage | Pipe or bin failure causing leak | 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. |
| Carcase storage and disposal | Storage container failure/damage | Carcasses removed from damaged container into additional storage bins, damaged bin replaced immediately. |
| Variations in stocking density/bird growth | Rapid bird growth or poor growth due to illness. | 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. |
| Drinker systems | Leaky systems/pipe failure | Any leaks 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. |
| Bird thinning/depletion | Fugitive odour release | 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. |

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| Litter Removal | Fugitive odour release | 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. |
| Washing operations/dirty water | Odour release from drainage/storage | 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. |
| Litter/manure | Wet litter | Additional bedding applied to maintain dry friable litter.  Initiate olfactory checks, to be agreed with Environment Agency Area Officer for approval. |
| Dust build up | Dusty litter | Possible use of misting system to control dust levels |

**Odour Complaint Form**

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| 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 |  | |
| Callers description of odour |  | |

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| 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 |  |

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| Follow up  Date and time caller contacted | |  | | |
| Action taken | |  | | |
| Amendment requirement to Odour Management Plan | |  | | |
| Form completed by |  | | Signed |  |

**Key responsibilities**

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| **Task** | **Staff position responsible** |
| Olfactory Checks | Site Manager |
| Overseeing /monitoring feed deliveries | Site Manager |
| Sweeping up spillages around feed bins | Site Manager |
| Checking condition of feed bins | Site Manager |
| Adjusting ventilation and heating system | Site Manager |
| Stock inspections | Site Manager |
| Daily checks on drinker height & pressures | Site Manager |
| Carcass disposal | Site Manager |
| Checking Carcass bins for damages/leaks | Site Manager |
| Monitoring wash water tank levels and organising emptying of tanks | Site Manager |
| Cleaning of sediment traps/drains | Site Manager |
| Checks to feed storage and fill pipes | Site Manager |
| Monitoring water consumption to detect leaks/pipe failure | Site Manager |
| Documenting /reviewing abnormal events | Site Manager |
| Reviewing annual plans | Site Manager |
| Complaints log | Site Manager |