Odour Management Plan

Overview

In the planning of the construction of the site layout consideration has been given siting main operational activities away from the nearest receptors to the east of the site. Prevailing wind is from the southwest.

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 egg production at High Emotland Farm.

Actions and measures are listed that will prevent where possible or minimise odour emissions at High Emotland 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

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.

The table below lists all sensitive receptors with 400m.

| Receptor | Description | Distance | Orientation | National Grid |
|-------------|-------------|----------|-------------|---------------|
| Name | | | | Reference |
| Dwelling | Residence | 42m | East | 508916,451568 |
| Dwelling | Residence | 299m | Northeast | 509111,451738 |
| Dwelling | Residence | 276m | West | 508311,451741 |
| Dwelling | Residence | 132m | North | 508678,451904 |
| Rotsea Farm | Residence | 370m | West | 507778,451518 |
| Swingbridge | Residence | 206m | Southwest | 507895,451027 |
| Cottage | | | | |
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| Odour Related Issue | Potential Risks and Problems | Actions taken to minimise odour and odour risks at High Emotland Farm | Completion date |
|-----------------------------------|---|--|-----------------|
| Free Range Egg Production | Odour levels | Stock inspections (normally 07.00-10.00 hrs and 16.00-18.00hrs) 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. | No on-site milling and mixing. 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 daily so that any damage or leaks can be identified. Feed deliveries are monitored to avoid dust and spills. | In place |
|---|--|---|----------|
| 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 gable/roof extraction fans to aid dispersion, checked prior to cycle commencement by qualified electrician who will provide 24hr breakdown cover The ventilation and heating 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. | 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 | In place |

| Carcase disposal | Inadequate storage of carcasses on site | condensation. Concrete floors to prevent ingress of water. Stocking levels at optimum to prevent overcrowding. Use of veterinarian bespoke health plan. Carcasses placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors. Twice weekly collection of carcasses | In place |
|---------------------------------------|---|---|-------------------|
| House clean out | Creation of dust associated with litter removal from houses Use of odorous products during cleaning. | Houses sealed immediately following depletion of birds. Minimum ventilation employed during delittering, houses sealed immediately following delittering awaiting washing. 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 (72 hours total for site) | In place In place |
| Used litter | Transport of litter to third party. | All trailers sheeted before leaving fill position. Avoidance of double handling. | In place |
| Washing operations including vehicles | Loss of dirty water to land or watercourse | Washing commenced within 24 hours of delittering 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 | In place |

| | | effective drainage to dirty water tanks. Dirty water tanks monitored during wash down to maintain freeboard. Washing operations completed within three days. Vehicle washing at designated wash point. All sediment traps and drains cleaned both before and after washing operations Concrete yard washings are washed back into the houses preventing run off. | |
|--------------------------|---|--|----------|
| 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 tank. | 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, before being removed off site to third parties. | 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 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. In place | |
|-------------------|------------------------|---|--|
| | | 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 | |
| | | removal. | |
| | | Chemicals in secure bunded shed free from frost | |
| | | and unauthorised entry together with any | |
| | | veterinarian products/medicine (off site) | |

Odour Monitoring

No formal monitoring is currently undertaken. In the event of a complaint being received, area officer will be informed.

| 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 Immediate action | 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 within 48 hrs | Visual inspection |
| Carcase storage and disposal | Storage container failure/damage | Daily Inspection | Carcases removed from damaged container into | Collection by licensed renderer within | Visual Inspection |

| | | Immediate action | additional container, damaged container replaced/repaired immediately. | 24hrs | |
|--|--|---|--|--|---------------------------------|
| Variations in stocking density/bird growth | Rapid bird growth or poor growth due to illness. | Deviation in predicted growth Action within 12 hrs | 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. | Potential for early bird depletion timescale dependant on integrator | Growth rates normal |
| Ventilation System | Fan/system failure | System fully alarmed, Immediate action | Alternative ventilation fan used, electrician call out | Mobile generator sourced within 4 hrs | Repairs effected and documented |

| Drinker systems | Leaky systems/pipe failure | Deviation in expected water consumption Immediate action | 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. | Potable water tankered in within 12hrs | Normal consumption |
|-----------------|--|--|---|--|---------------------------------|
| Bird depletion | Fugitive odour release | Immediate action | 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. | Area within houses where forklift has been operating blanket covered with shavings | Odour reduced to low levels |
| Litter Removal | Fugitive odour release from poultry houses | Raised odour levels | Minimum ventilation rate to prevent fugitive release of odour, review OMP | Review of littering out procedures within 1 week | Odour levels returned to normal |

| | | action | with any changes documented and recorded and submitted to Environment Agency Area Officer for approval. | Area officer notified | |
|--------------------------------|---|---|---|--|---|
| Washing operations/dirty water | Odour release from drainage/storage Delay in dirty water removal Blocked drains | Raised odour levels immediate action Washing procedure monitoring immediate action Immediate action | 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 increased within 1hr Licensed waste disposal contractor used within 24hrs Specialist drainage contractor called out within | Odour levels normal Normal washing resumed after visual inspection |

| | | | | 24hrs | |
|---------------|------------|---|--|--|---------------------|
| Litter/manure | Wet litter | Raised odour levels Immediate action | Additional bedding applied to maintain dry friable litter. Initiate olfactory checks to ensure effectiveness. | Additional ventilation implemented to dry litter within 4hrs | Odour levels normal |

The contingency measures above, when implemented, will be verified for effectiveness by means of visual inspection of equipment or additional checks.

Complaints Procedure

In the event of an odour complaint being recorded the site staff will be alerted to implement contingency measures to ensure the effectiveness of actions implemented.

In the event of any strong odour detected 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. Complainant will be contacted following an investigation and notified of the cause and the remedial action that was undertaken. 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: | | |
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| T. I. N | | |
| Tel. No. of caller | | |
| Location of caller in relation to | | |
| Installation | | |
| | | |
| Time and Date of complaint | | |
| | | |
| Date, Time and duration of | | |
| | | |
| Offending odour | | |
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| Callers description of odour | | |
| caners description of ododi | | |
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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 | |
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| Operating conditions at the | |
| time offending odour occurred | |
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| Follow up | |
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OMP to be reviewed annually or following a complaint or any changes to operations.

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