

ODOUR MANAGEMENT PLAN

**RED HALL FARM Ltd.
RED HALL FARM
LEIGHTON
CREWE
CHESHIRE
CW1 4QU**

Permit Number
PERMIT NUMBER EPR/PP3236RK

This plan will be reviewed annually or immediately if there is a substantiated complaint.

Date September 2018

Review Date September 2019

Red Hall Farm

Potential Odour Sources

The following sources have been identified as contributing to a potential medium - high risk odour source.

- Odour emissions from compound feed selection
- Odour emissions from feed delivery and storage
- Odour emissions from ventilation techniques
- Odour emissions from litter conditions and management
- Odour emissions from carcass storage and disposal
- Odour emissions from fluctuations in bird stocking densities (growth curves)
- Odour emissions from drinking water systems
- Odour emissions from de-stocking (thinning and final depletion)
- Odour emissions from cleanout (litter removal)
- Odour emissions from dirty water generation and storage (washout)
- Odour emissions from litter/ manure
- Odour emissions from carcass storage
- Odour emissions from dust build up

Pathways and Receptors

The pathway for all of the above sources would be via the atmosphere, with the most sensitive receptors being inhabitants of nearby residential dwellings the wind direction will significantly influence how receptors are effected.

Receptors

See plan on next page

List of potentially affected properties from airborne odour issues

There will be an increase in the boundary to this site but it will not affect the number of nearby receptors. There are three properties within 400 metres of the site. To the northeast there is the Red Hall Farm House and Red Hall Lodge both owned by the business. On the southeasterly tip there is Leighton Grange.

There have been no issues arising in the past from these properties.

Person Responsible

It is the responsibility of the duty manager to ensure that this plan is adhered to and followed at all times.

It is also the responsibility of the manager to investigate any and all complaints diligently, to take any remedial action and to review this plan. The results must be reported both to the company and to the complainant.

A complaint form can be found in the ENVIRONMENTAL ACCIDENT And MAINTENANCE PLANS Folder.

Hard copy will include copy of plan here

Introduction

This plan has been prepared as part of the EPR permit application as there are sensitive receptors within 400 metres of the installation. The following table sets out:-

- the likely sources of odour arising from the poultry unit;
- the procedures planned at Red Hall Farm in order to prevent or minimise odour levels.

Typical Odour Sources and Actions Taken to Minimise Odours

| Odour Related Issue | Potential sources of Risks and Problems | Actions taken to minimise odour and odour risks at Red Hall Farm | Completion date |
|-----------------------------------|---|--|-----------------|
| Manufacture and selection of feed | <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • Reduce protein content of feed in accordance with H2C • No milling will take place on site • Whole wheat will be blended with the pelleted feed within a sealed building • Whole wheat is sourced separately, source must have certificate of competence for grain production with an Assurance scheme • 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 • Avoid fine grinding of feed • Follow good housekeeping and clean up all spills • Feed deliveries monitored to avoid dust or spills • Enclosed handling, storage and on site transport | In place |

| | | | |
|---------------------------|--|---|----------|
| | | <ul style="list-style-type: none"> • When moving feed, avoid drops and open chutes • Relocation of any odorous activities, storage or extraction points from buildings • Avoidance of and immediate treatment of any pests e.g. mealworms | |
| Feed delivery and storage | <ul style="list-style-type: none"> • Spillage of feed during delivery and storage. • Creation of dust during feed delivery. | <ul style="list-style-type: none"> • 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 every 7 weeks so that any damage or leaks can be identified and repaired. The manager will ensure that any faulty bin is repaired ASAP • Feed deliveries are monitored to avoid dust and spills. | In place |
| Ventilation | <ul style="list-style-type: none"> • Inadequate air movement in the house, | <ul style="list-style-type: none"> • The ventilation system is regularly adjusted according to the age and requirements of the flock • The ventilation system is designed to efficiently remove moisture from the house. • Twice daily checks of all houses are made. • Minimal ventilation will be used during destocking consistent with bird welfare. | In place |
| Litter management | <ul style="list-style-type: none"> • Odours arising from wet litter (see above). • The use of insufficient or poor quality litter. • spillage of water from drinking systems. | <ul style="list-style-type: none"> • Controls on feed and ventilation (see above) help to maintain litter quality. <p>Additional controls include:-</p> <ul style="list-style-type: none"> • Use of nipple drinkers to minimise spillage. • Daily checks of drinkers | In place |

| | | | |
|------------------|--|---|----------|
| | <ul style="list-style-type: none"> • Disease outbreaks, leading to wet litter. | <p>are undertaken to avoid capping.</p> <ul style="list-style-type: none"> • Insulated walls and ceilings to prevent condensation. • Concrete floors to prevent water ingress. • Stocking density at optimal levels to prevent overcrowding. • Addition of more clean, dry bedding material, inspection carried out daily. Any signs of capping or greasiness will result in action being taken eg. Increased ventilation rate • Use of a health plan, with specialist veterinary input used as necessary. | |
| Carcass disposal | <ul style="list-style-type: none"> • Inadequate storage of carcasses on site. | <ul style="list-style-type: none"> • Weekly collections, these can be increased during hot weather. • Storage containers kept cool / shaded • Storage containers kept covered and locked • Leaks prevented from storage containers, daily inspection of area. Should a leak be detected then the bin would be emptied and washed out immediately. It should then be replaced ASAP • Storage location away from sensitive receptors • Use of odour suppressant near container • Collection made under the National Fallen Stock Scheme • There is no stagnant water as site has sloping concrete surfaces, and if any occurred it would be washed away immediately | In place |
| House Clean Out | <ul style="list-style-type: none"> • Creation of dust associated with litter removal from | <ul style="list-style-type: none"> • Clean out contained to avoid odours • Buildings sealed during | In place |

| | | | |
|-------------|--|---|----------|
| | <p>houses.</p> <ul style="list-style-type: none"> • • Use of odorous products to clean houses. | <p>and/or after cleanout</p> <ul style="list-style-type: none"> • Separate collection system for wash water • Litter is carefully placed into trailers positioned close to the entrance to each house. When full the trailer is covered before leaving the site. • Litter is removed as soon as possible after destocking without causing excessive odour (2 to 3 days max to remove all litter). • Whole site wash down completed in 7 days • Minimal ventilation will be used. • Only Defra approved detergents and disinfectants are used • Check with paper towels that a thorough job has been done - before terminal disinfectant applied. • Ensure wash water is not washed back into the house. • Wash water tanks hold one complete wash down. • Wash water tanks are emptied to avoid overflowing as soon as practical after wash down complete. • Clean out takes place as soon as possible after destocking. | |
| Used litter | <ul style="list-style-type: none"> • Storage of used litter on site. • Transport of litter and applications to land. | <ul style="list-style-type: none"> • No litter is stored on site. • Litter is transported in covered trailers. • There is no double handling • All litter land-spread is under the control of a separate farming business and subject to a written agreement and will be | In place |

| | | | |
|------------------------|---|---|----------|
| | | <p>spread in line with the Code of Good Agricultural Practise.</p> <ul style="list-style-type: none"> • Ash from the biomass boilers is spread to land under a Waste Exemption. | |
| Dirty water management | <ul style="list-style-type: none"> • 'Standing' dirty water during the production cycle or at clean out. • Applications of dirty water to land. | <ul style="list-style-type: none"> • Some areas around the house are concreted, others have porous stone and remain clean during the production cycle. • At clean-out, dirty water is directed to underground tanks for storage. • The dirty water tanks are inspected at least twice per day during wash down to ensure that it does not overflow. • Dirty water is spread to land under the control of a separate farming business and subject to a written agreement and will be spread in line with the Code of Good Agricultural Practise. • Dirty water drains are inspected annually by the duty manager. Any fault is immediately repaired | In place |
| Complaints | <ul style="list-style-type: none"> • Odour • Noise • Other | <ul style="list-style-type: none"> • The duty manager is responsible for taking details of the complaints as per the Complaint Form • The complaint will be investigated immediately • Remedial action will be taken immediately • This plan will be reviewed • The findings of the investigation, the action taken and any changes to this plan will be reported to both the complainant and to the company | |
| | <ul style="list-style-type: none"> • Remedial/ contingency measures | <ul style="list-style-type: none"> • Identify cause • If due to damp/wet litter add more fresh dry litter | |

| | | | |
|--|--|--|--|
| | | <p>and/or/both increase ventilation rate depending on the severity.</p> <ul style="list-style-type: none"> • If due to carcass storage issues have bins emptied ASAP • Use odour suppressants if appropriate | |
|--|--|--|--|

The site uses high velocity roof fans for all minimum, and most warm weather, ventilation purposes which will achieve the greatest dispersion of any air/odour that is vented out of the sheds, these fans are located in the ridge to achieve this objective. The air is drawn in using side vents, due to the design of the roof space and the positioning of the fans this creates a circular movement of air within the shed helping to keep the litter dry and prevent wet litter and hence any odour issues. The additional hot weather summer fans are low level but also at low speed helping to prevent dust and odour spread.

The greatest risk of odour creation and therefore the risk of an odour complaint is in the latter stages of the crop. Therefore from day 25 until the end of the crop the site boundary will be monitored by walking the site boundary to see odour can be detected. This will be done first job in the morning before the staff enter the sheds and become desensitized. The result of this walk are to be recorded daily (see below) and results available for inspection.

AS part of the 'good housekeeping' dust from the end of house fans is inspected daily and regularly swept up during the summer period when these fans may be in use. These fans are only used when the outside ambient temperature approaches the same temperature as that within the sheds so might only be used for short periods each day.

The assessment of the moisture content within the litter is undertaken using basic techniques such as observation. For example, when the operator squeezes a handful of litter, it should stay together for a few seconds and then fall through the fingers. If the litter falls through too quickly the litter is too dry, if it clumps then it is too wet (see table for mitigating operations)

During catching / destocking catching curtains used where possible and a minimum ventilation rate consistent with bird welfare. At times of high ambient temperature or when high humidity poses a threat to the birds, catching, loading and transportation create particular risks of heat stress. It is important that plans are made in advance to reduce the risk. Red Hall Ltd will use meteorological forecasts of predicted temperatures so destocking can be undertaken during cool periods. Destocking is undertaken at night to assist this process. The destocking process is designed to take the minimum time possible which is consistent with ensuring bird welfare and will typically take 2 hours per load, in between loads the doors are closed.

The site operators are committed to maintaining site cleanliness. Any spillages are dealt with promptly and correctly. All wash water is adequately contained; Terminal hygiene plan is followed at all times; Suitable chemical products will be selected and the correct dilution rates are adhered to; Limit washing operations at weekends and bank holidays where possible. Washing operations not to take place during inappropriate weather conditions Dirty Water is directed to sealed underground tank for storage. It is then spread onto land as weather conditions permit.

All staff have training in Environmental Management which includes site and house maintenance, this includes the management of the litter covering inspection and remedial action.

Birds will not stay on the farm longer than has been agreed unless it is beyond the control of the company eg. Avian Influenza.

The site has an emergency generators which starts automatically in the event of a power outage. The alarm system warns the duty manager of this event. The site will have 2 members of staff with one always on call. This ensures that the house is always ventilated preventing the buildup of odour.

The sheds are continuously monitored for humidity and temperature, the highs and lows are recorded each day, this monitoring also causes the computer system to increase ventilation and or more heating helping to prevent odour issues.

A copy of the complaint form is available in the ENVIRONMENTAL ACCIDENT And MAINTENANCE PLANS Folder.

| Odour Report Form for Red Hall Farm, | | | | Date : | | |
|--|--|--|--|---------------|--|--|
| Time of test | | | | | | |
| Location of test | | | | | | |
| Weather conditions (dry, rain, fog, snow etc.) | | | | | | |
| Temperature (very warm, warm, mild, cold or degrees if known) | | | | | | |
| Wind strength (none, light, steady, strong, gusting) Wind direction | | | | | | |
| Intensity (see below) | | | | | | |
| Duration (of test) | | | | | | |
| Constant or intermittent in this period or persistence | | | | | | |
| What does it smell like? | | | | | | |
| Receptor sensitivity (see below) | | | | | | |
| Is the source evident? | | | | | | |
| Any other comments or observations | | | | | | |