

ODOUR MANAGEMENT PLAN – Bardney Daries

Introduction

This Odour Management Plan (OMP) has been prepared to support the overall Environmental Management System in place at Bardney Daries Poultry farm. The overriding principle of this OMP is to ensure the day-to-day activities are carried out in accordance with this document to help minimise the overall environmental impact. This OMP has been prepared as Best Practice.

The purpose of this OMP is to...

- Establish the likely source of odours arising from the farm.
- Set out procedures at the farm to mitigate or minimise the risk of odour.
- Formalise an effective method of dealing with any odour complaints quickly and efficiently.

Fen Drayton Poultry Unit – Sensitive Receptor Locator

Sensitive Receptors within 400m of the site are:

Point	Grid Reference	Postcode	Address	Direction	Distance
A	TF 14159 71766	LN8 5JN	Forest Lodge	North	394m
B	TF 14546 70906	LN10 5EA	Industrial	South	355m

Prevailing wind is from the Southwest.

This plan has been prepared using the Environmental Risk Assessment.



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 drinking water systems
- Odour emissions from de-stocking
- Odour emissions from dirty water management

Pathways and Receptors

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

Odour Management and Control Measures

Odour Related Issue	Potential Risk and Problems	Actions taken to prevent and minimise risk
Manufacture and selection of compound foods	Milling and mixing of compound feeds Poor quality and odorous ingredients Feeds which are “unbalanced” in nutrients, leading to increased excretion, litter moisture and higher emissions of ammonia and other odorous compounds	No on-site milling or mixing. Feed specifications are prepared by the feed compounder’s nutrition specialist. The nutritionist ensures that protein and phosphorous content is reduced as the rations change throughout the flock cycle. Feed is only supplied by a UKASTA accredited feed mill, so that only approved raw materials are utilised in production. A feed sample for every load of feed delivered to the site is left and documented for both quality assessment and traceability. Samples are kept on site for a minimum of three months.
Feed Delivery and storage	Creation of dust during delivery	Feed delivery systems are sealed to minimise atmospheric dust. Dust catchment systems will be in place on all silos. Silo condition checks are carried out every 6 weeks and documented if required repairs/replacement will be carried out as soon as reasonably practical.
Ventilation Techniques	Inadequate air movements within the buildings can lead to high humidity and subsequently high moisture levels within the litter. Inadequate control of inlet and fan controls leads to poor dispersal of potential odours.	The ventilation system is regularly adjusted either automatically or manually to aid optimum internal environmental conditions. The ventilation system is designed to efficiently control and, when required, remove humidity from within the buildings. Maintenance schedules are in place and are carried out in line with manufacture’s recommendation and guidance. This is to minimise the risk of any breakdowns during the flock cycle. In the event of a breakdown, an electrician is on call 24hrs a day. High velocity fans are installed at the site which will assist with greater dispersion of odour.
Litter Conditions and Management	Building design and quality	All walls and ceiling voids have been insulated to prevent condensation and

		cold bridging. Should any aspect of the building structure fail, a full investigation will be carried to source and rectify any issues as they arise. Litter conditions are scored daily. Nipple drinkers are utilised to avoid spillage and checked daily. Height of the drinkers is changed to reflect bird growth and ensure efficiency.
Carcass disposal	Inadequate storage of carcasses on site Carcasses stored on site for prolonged period of time.	Houses are walked three times a day and any fallen stock removed. Carcasses are stored in lockable, sealed containers. Carcasses are removed at least weekly or at a higher frequency if required.
Destocking of livestock	Higher levels of odour release through increased ventilation Turning over of any damp litter during machine access and in house movements	Ventilation controls to be used to control the release of odours while still maintaining optimum temperature control throughout the depletion process. Catching curtains are to be employed. Machinery movements to be kept to a minimum to help avoid the churning up of litter.
Clean out. (Litter removal, wash down and disinfection)	Creation of dust during clean down Heaping up and removal of large quantities of potentially high levels of odorous material Loading of lorries / trailers. Use of odorous products to disinfect buildings following wash down.	Litter removal is planned for the day after final destocking. Ventilation is turned off during litter removal.. All internal areas are blown down using high pressure air lances to remove areas of trapped dust which in turns help reduce the amount of dirty water. Litter is to be removed as soon as reasonably practical following bird removal. Only DEFRA approved disinfectant and detergents are used on site and are applied by trained personnel. The duration of the total turnaround is typically between 6 -9 days for the whole site. Washing typically starts the day after the litter is removed. Trailers containing litter are covered prior to leaving the site. The farm manager or nominated 2Agriculture employee is responsible for

		monitoring and managing the dirty water tank. This is emptied as soon as practical following the wash, the tank is backwashed to remove any solid build up at the bottom.
Dirty Water management	Standing or open stored dirty water during the production cycle or clean-out Removal of dirty water from stores	Dirty water is only generated in areas with containment (kerbing etc), it is directed to dirty water tanks via diverter systems. Areas around the houses are to be kept clean throughout the flock cycle. Dirty water is removed from site using vacuum tankers with all removals being documented through transfer note. Routinely the storage tanks are checked before and after wash down. In house water usage is monitored and recorded daily. The mains water metre reading is reported monthly. Any abnormal spikes or dips in useage are investigated.

Abnormal Conditions and Control Measures

Should the abnormal conditions identified below occur then the farm manager in conjunction with the area manager shall ensure that these are fixed as soon as reasonably practical. Third party contractors are on call and shall be utilised to ensure that issues are dealt with in a timely manner. Once the farm and area manager (and third party contractor if required) are satisfied that the issue has been rectified then the mitigation measures shall cease.

Odour Related Issue	Potential Risk and Problems	Actions taken to prevent and minimise risk
Feed Delivery and storage	Spillages of feed during delivery and storage	Any spillages are cleaned up immediately.
Litter Conditions and Management	Odours arising from wet litter and poor management. Disease / virus outbreaks leading to poorly conditioned birds – excessive excretion leading to higher moisture content within the litter.	Controls on feed and ventilation help maintain litter quality additional controls include. Top up bales shall be used immediately if wet litter is identified. Use of a veterinary health plan, with specialist veterinary input as necessary.
Management of drinking water systems	Spillages of surplus water from drinker systems	Use of nipple drinkers and drip trays to minimise the risk of spillages and water wastage. Systems to be checked daily by farm personnel and any abnormalities to be documented and rectified as soon as reasonably practical.
Power outage	Loss of electrical supply to the site resulting in failure of ventilation	The site is equipped with an emergency generator that can be used in the event

	system	of a power outage. The generator is tested weekly to ensure functionality in the event of an emergency. A third party electrician is on call and will be notified immediately of any issues.
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On Farm Monitoring and Continual Improvement

- Internal relevant humidity, temperature and litter quality is to be monitored by farm personnel and recorded on each house card daily. Any abnormal odours detected will be reported to the area team.
- The area manager will assess odour during his normal site visits which are usually carried out weekly.
- Complaints and subsequent actions are to be logged on site.
- Staff are to receive training regarding Environmental Permitting Regulations – which will include odour management and any new company procedures.
- Odour monitoring will be carried out 30 days into each crop at the installation boundary.
- If an odour complaint is received for the site, then a more robust monitoring regime will be implemented. This shall include boundary sniff monitoring by the area manager and potentially sniff monitoring at the complainant receptor if this can be agreed. Any abnormalities shall be logged investigated and mitigation put in place.

Odour Complaints Procedures

Any odour complaints received in direct relation to the installation shall be recorded. Odour complaints shall be fully investigated and records available at future inspections. Complaints received directly from the public will be notified to the Environment Agency (EA).

Investigations shall consider...

- The activities taking place at the time of the complaint.
- The timing of the complaint.
- The weather conditions at the time of the complaint.
- Any non-routine operations on site.
- Any changes that may have been made to Standard Operating Procedures.
- The receptor and the impact that may have been caused.

Following all investigations into complaints, if the issue is caused by an operation at the site, a discussion will be had with the EA and any agreed mitigation measures will be implemented to help minimise the impact.

Review

This OMP will be subject to review following any EA substantiated complaint or every year, whichever is sooner. In addition changes to infrastructure or operations will also trigger an review.