NAFFERTON
– WOLD FARMS –

Management System for Great Houndales 64,000 Bird Poultry Rearing Farm

1. Introduction

This management system outlines procedures for managing our poultry rearing farm with a capacity of 64,000 birds, rearing day-old chicks to 16-week-old point-of-lay pullets over a 16-week cycle. It identifies environmental risks (e.g., ammonia emissions, dust, odour, noise, and waste) and specifies measures to minimize pollution in compliance with an environmental permit issued by the Environment Agency for an A1 installation (>40,000 birds).

2. Site Overview

- Location: Great Houndales Farm, Nafferton, Driffield, YO25 4LF
- Grid Reference: TA 04460 60075
- Activity: Rearing of 64,000 poultry birds from day-old chicks to 16-week-old pullets.
- Infrastructure:
    - One modern steel, fully insulated building split into two houses, each housing 32,000 birds.
    - Equipped with a state-of-the-art BigDutchman Filia aviary system featuring muck belts for manure removal.
    - Ventilation system with high-velocity roof fans and summer vents.
    - Indirect LPG heaters in the building are controlled by the BigDutchman Viper Climate control system to heat the houses as required.

    - $10m^3$ dirty water tank for wash water collection.
    - Feed storage silos and a designated manure transfer route to our Anaerobic Digestion (AD) plant at Burton Agnes.
    - Rainwater from the building's roofs and hardstandings is drained via a clean water drainage system to a large soakaway.
- Flood Risk: The area has no history of flooding based on historical records and our site Flood Risk Assessment. The Geology of the site consists of Glacial Till overlaying Flamborough Chalk.
- Permit Type: Bespoke environmental permit for an A1 installation.

3. Roles and Responsibilities

- Site Manager: Oversees operations, ensures permit compliance, and reviews the management system annually.
- Staff: Trained operatives handle feeding, cleaning, manure removal, and environmental monitoring.
- Contractors: Maintenance technicians (e.g., for BigDutchman equipment) perform specific tasks under site manager supervision, adhering to permit conditions and site protocols.
- Technical Competence: The site manager has been robustly trained on the requirements and protocols held within the permit; a trained supervisor assumes responsibility in the site manager's absence.

4. Risk Assessment

Key environmental risks identified:

- Ammonia Emissions: From litter and manure in the aviary system.
- Dust: From bedding, feed, and bird activity.
- Odour: From manure handling.
- Noise: From high-velocity roof fans and bird activity and from routine collections and deliveries.
- Water Pollution: From wash water or potential runoff. The risk is deemed to be very low.
- Waste: Fallenstock and packaging.

5. Operational Procedures

5.1 Bird Housing and Ventilation

- Housing: One building divided into two houses, each with 32,000 birds, fitted with the BigDutchman Filia aviary system.
- Ventilation: High-velocity roof fans provide airflow, with summer vents that open automatically during high ambient temperatures to maintain bird comfort and reduce ammonia buildup.
- Indirect LPG heaters in the building are controlled by the BigDutchman Viper Climate control system to heat the houses as required.
- Maintenance: Fans and vents are cleaned weekly and serviced per manufacturer guidelines; summer vent operation is tested monthly.
- See Great Houndales Site Plan, Location + Drainage document.

5.2 Litter and Manure Management

- Aviary System: The BigDutchman Filia system includes muck belts that are run twice weekly (e.g., Tuesdays and Fridays) to remove manure, minimizing ammonia emissions within the houses.
- Manure Handling: Collected manure is transported via tractor and trailer to the AD plant at Burton Agnes.
- Litter: Dry friable bedding (e.g. hemp) is used on aviary floors and topped up as needed; fully removed at the end of each 16-week cycle.

5.3 Feed Management

- Feed is stored in sealed silos to prevent pest access and spoilage.
- Precision feeding via the aviary system reduces waste and dust; spillages are cleaned immediately.

5.4 Water Management

- Drinking Water: Nipple drinkers in the aviary system minimize spillage; leaks are repaired as soon as identified.
- Dirty Water: A $10m^3$ dirty water tank collects wash water during cleaning and disinfection between flock cycles. This water is exported to our local slurry store to be spread on our land as a fertilizer.
- Clean Water Drainage: Rainwater from the building's roofs and hardstandings is drained via a clean water drainage system to a large soakaway, ensuring separation from dirty water systems.
- Monitoring: Surface water drains and the soakaway are inspected monthly to confirm functionality and prevent blockages.

5.5 Waste Management

- Dead Birds: Collected daily, stored in a sealed container, and collected by Websters Fellmongers twice a week and disposed of via an approved renderer.
- Non-Hazardous Waste: Packaging and other materials are recycled where possible or disposed of via licensed waste carriers.
- All manure, spent litter and dirty water is exported to Burton Agnes Renewables Ltd and recorded in the Great Houndales Muck Export Record.

5.6 Noise Control

- Staff are trained to minimize unnecessary noise during operations.
- The farm is in an isolated location with a single neighbour >400 metres to the south west of the site which is taken into consideration and actively consulted with.

5.7 Odour and Dust Control

- Muck belts running twice weekly reduce odour and ammonia within the houses.
- Roof fan exhausts are well maintained to ensure dust and odour emissions are carefully controlled and dispersed into the air above the unit.
- A routine cleaning schedule is in place which prevents buildup of odour-causing materials.

6. Monitoring and Maintenance

- Emissions Monitoring: Ammonia, dust, and odour levels are assessed routinely at site.
- Equipment Maintenance:
    - Muck belts, roof fans, and summer vents are serviced per BigDutchman and manufacturer schedules.
    - The $10m^3$ dirty water tank and clean water drainage system (including the soakaway) are inspected monthly for leaks, blockages, or overflow risks.
    - Maintenance logs are updated after each service.
- Site Inspections: Weekly checks of drainage systems, manure transfer areas, and housing conditions are recorded and a monthly Inspection and Maintenance Programme is in place (See Great Houndales Inspection and Maintenance document).
- Any maintenance issues are logged in the maintenance issues and resolution log (See Great Houndales Maintenance Issues and Resolution Log).

7. Accident Prevention and Response

- Potential Incidents: Fire, equipment failure (e.g., muck belt breakdown), or disease outbreak (flooding risk negligible due to no historical flooding).

- Prevention: No combustible material stored around the building, annual electrical checks, spill kits stored in the amenity building, and a backup diesel generator for powercuts.
- Response Plan:
    - Fire: Evacuate staff, contact emergency services, and if safe to do so use on-site extinguishers which are serviced annually.
    - Spills: Contain with absorbent materials from spill kits and notify the Environment Agency within 24 hours if pollution occurs.
    - Muck Belt Failure: our maintenance contractor guarantees a 24 hour response time for all breakdowns.
    - Disease: Follow Defra protocols and isolate affected house.
- Incidents are recorded, investigated, and reported as per permit conditions.

8. Climate Change Adaptation

- Risk Assessment: Assesses impacts of heatwaves and drought. Flooding is not a significant risk due to the area's lack of flooding history and effective clean water drainage to the soakaway.
- Adaptation Measures:
    - 48 hour Backup water storage and a bore-hole installed into deep local aquifer mitigates the risk of drought periods.
    - Summer vents and high-velocity fans designed to handle a 2°C temperature rise by 2050.
    - A feed mill has been built to utilise our own crops grown on the farm to mitigate against potential global food shortages caused by adverse weather.

9. Record Keeping

- Records include:
    - Staff training logs.
    - Maintenance schedules for muck belts, fans, dirty water tank, and clean water drainage system.
    - Monitoring data (ammonia, dust, odour).
    - Manure transfer records to Burton Agnes AD plant.
    - Bird deliveries and collections
    - Medication and chemical use
    - Waste disposal and incident reports.

    - Accidents and Complaints
- Retained for 6 years and available for Environment Agency inspection.

10. Review and Update

- Reviewed annually or after significant changes (e.g., equipment upgrades, permit variations, or incidents).
- Updates are documented, and staff are retrained as needed.

11. Public Communication

- A notice board at the site entrance displays:
    - Farm name and operator details.
    - Environment Agency contact: 03708 506506 (general) and 0800 807060 (incident hotline).
    - EPR number
- Complaints (e.g., noise, odour) are logged, investigated within 48 hours, and resolved with records kept.

12. Staff Training

- Induction training covers muck belt operation, ventilation, feeding, drinker, lighting, deadstock management, dirty water handling, clean water drainage maintenance, and permit compliance for all staff.
- Contractors (e.g., waste carriers, equipment technicians) receive task-specific instructions prior to site entry, ensuring compliance with permit conditions and safety protocols.
- Annual refreshers ensure ongoing competency for staff, with competency tests (e.g., muck belt operation demonstration) completed post-training.

13. Complaints and Accidents

- Any complaints from the public are recorded in our complaint form
- The complaint form also contains a section detailing what follow up was made to the complaint and what actions were taken. (See Great Houndales Accident Management Plan).
- There is an accident Management plan in place, designed to prevent environmental accidents and to record any that do occur and detail what measures were taken and what actions implemented to avoid them happening again. (See Great Houndales Accident Management Plan).

14. Site Closure Plan

- Objective: To ensure the site is decommissioned in an environmentally responsible manner, preventing pollution and restoring the area in line with permit conditions if operations cease permanently.
- Procedure:
    - Notification: Inform the Environment Agency at least 3 months prior to closure (or as specified in the permit).
    - Bird Removal: Transfer or sell remaining pullets to other farms; dispose of any dead birds via the approved renderer.
    - Waste Clearance: Remove all manure from muck belts and transport to the Burton Agnes AD plant; empty and clean the 10m^3 dirty water tank, disposing of contents via a licensed contractor; recycle or dispose of non-hazardous waste (e.g., feed bags) via licensed carriers.
    - Equipment Decommissioning: Dismantle and remove the BigDutchman Filia aviary system, ventilation fans, and feed silos following manufacturer guidelines, ensuring no residual contamination.
    - Site Clean-Up: Wash and disinfect houses, removing all litter and residues; inspect and clear the clean water drainage system and soakaway to confirm no blockages or pollution risks remain.
    - Final Assessment: Conduct a site walkover and environmental survey (e.g., soil and water sampling) to verify no contamination; submit a closure report to the Environment Agency within 1 month of completion.
- Records: Maintain closure documentation (e.g., waste transfer notes, survey results) for 6 years or as required by the permit.
- Reinstatement: Restore the site to a condition suitable for agricultural use, unless otherwise agreed with the landowner and Environment Agency.