ODOUR MANAGEMENT PLAN

SUTTON VENY POULTRY UNIT

Sutton Veny Poultry Unit

Amber Real Estate Investments Ltd

Deverill Trading Estate

Sutton Veny

Warminster

Wiltshire

BA12 7BZ

Pre-App no: EPR/PP3232EF/A001

Grid Reference: ST888 417 (388881, 141745)

Issue date	Review date	Review by
November 2014	November 2018	AREIL

Introduction

This bespoke Odour Management Plan (OMP) has been prepared to support the overall Environmental Management System in place at Sutton Veny Poultry Farm. The overriding principle of this OMP is to ensure the day to day activities are carried in accordance with this document to help minimise the overall environmental impact. As there are a number of sensitive receptors within close proximity of the installation this OMP has been prepared as Best Practice.

The purpose of this Odour Management Plan is to:

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

The measures outlined in the OMP will be carried out alongside other operational procedures set out in the EMS (Issue date July 2014) and the Accident Management Plan (Issue date July 2014).

Installation Background

The installation is approximately 5.5 acres in size and located at National Grid Reference ST888 417 (388881, 141745). Sutton Veny Poultry Farm is situated at the south east corner of Deverill Road Trading Estate, a small scale industrial estate 800 metres south west of the village of Sutton Veny and 3km south of Warminster. The installation is at an elevation of 120 meters situated in a valley with wooded covered hills to the north and steep escarpments within a few hundred metres which rises to 200 metres.

The nearest sensitive receptor is an allotment on the western boundary of the site with the closest residential receptor approximately 160 metres North West of the new buildings.

The site consists of a total of 4 steel clear span constructed poultry houses which will be built in accordance with B.A.T. using high levels of insulation to reduce energy demand and a state of the art ventilation system to minimise the effects on nearby designated sites/receptors.

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At 35 days a proportion of the birds are removed for slaughter, with the remaining birds being processed by around 41/42 days of age.

At the end of the growing cycle all birds are depleted off site with the building being dry; cleaned by means of compressed air being used to remove dust build up from the building internals and equipment before litter is removed.

All spent litter will not be stored on site but will be disposed off site by third parties with the appropriate licenses or permits.

Following dry cleaning, the buildings are then washed clean using high pressure water which is collected and removed from site. Once dry all the building internals are disinfected to point of run.

On average there are 7 crops per annum with a turnaround of 5-7 days between crops. Mortalities are removed from the sheds daily and the numbers recorded.

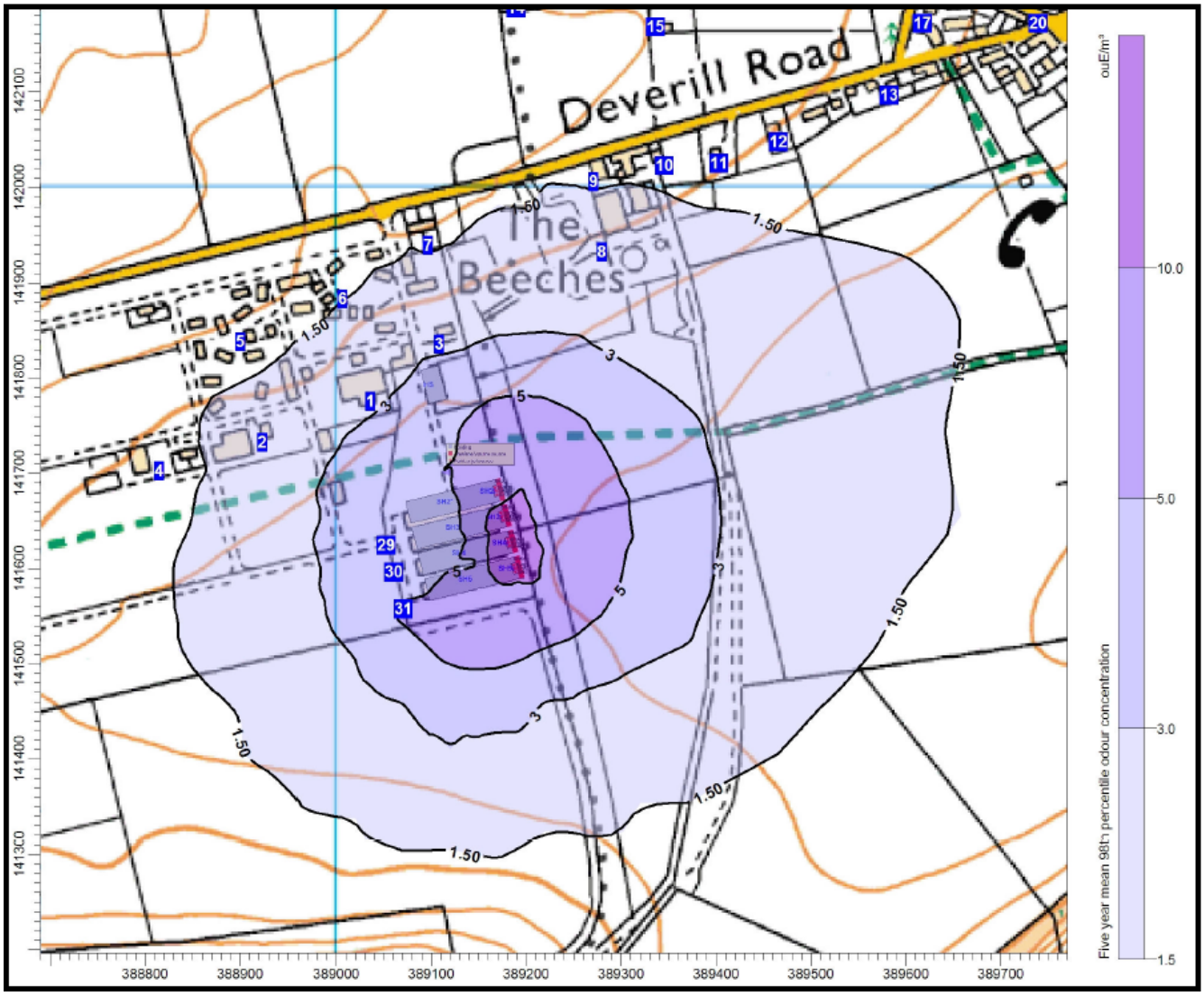
Carcasses are stored on-site in metal containers ready for collection twice weekly and are disposed of in accordance with the Animal By Products Regulation 2011.

Potential Odour Sources

Noting the H1 Risk Assessment for Odour (ADAS Issue date 21st March 2014), 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

Sensitive receptor Location Plan



Coordinates	Key															
Receptor	**1**	**2**	3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
X	389036	388924	389109	388815	388901	389007	389097	389280	389271	389346	389404	389466	389583	389190	389337	389533
Y	141775	141732	141835	141702	141838	141883	141939	141932	142006	142023	142025	142048	142095	142188	142167	142198

Receptor	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	
X	389618	389812	389781	389740	390004	388974	388357	388267	388235	388682	389385	389937	389053	389061	389071	
Y	142171	141860	142002	142171	141809	142429	141537	141643	141858	142471	142494	141348	141624	141596	141557	

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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 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	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.	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	Spillages of feed during delivery and storage. Creation of dust during delivery.	Feed delivery systems are sealed to minimise atmospheric dust. Cyclone dust catchment systems will be in place on all silos. At the end of each cycle the cyclone are emptied onto the litter within the house ready for disposal. Each unit is then cleaned checked ready for the next flock. Annual condition checks are carried out and documented as detailed in the EMS.
Ventilation Techniques	Inadequate air movements within the buildings can lead to high humidity and subsequently high moisture levels within the litter.	The ventilation system has been positioned furthest point away from any receptors and utilises 16m/s fans to minimise the impact on receptors.

	Inadequate control of inlet and fan controls leads to poor dispersal of potential odours.	The ventilation is regularly adjusted either automatically or manually to aid optimum internal environmental conditions, as explained in the EMS. 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 manufacturer recommendation and guidance as stated in the EMS to minimise the risk of any breakdowns during the flock cycle.
Litter Conditions and Management	Odours arising from wet litter and poor management. Spillage of surplus water from drinker systems. Disease / Virus outbreaks leading to poorly conditioned birds – excessive dropping leading to higher moisture content within litter. Overcrowding of available bird space, poor ventilation design and techniques. Building design and quality.	Controls on feed and ventilation help maintain litter quality additional controls include: Use of nipple drinkers and drip trays to minimise spillage Use of a veterinary health plan, with specialist veterinary input used as necessary. Stocking density are to be assessed to maintain optimum ventilation levels and to prevent overcrowding. If odour monitoring undertaking after commissioning indicates significant impact and/or EA substantiated complaints are received, destocking of buildings will be considered as a mitigation measure. All walls and ceiling voids have been insulated to prevent condensation and cold bridging as detailed in the EMS. Continual Damp Proof Membrane (DPM) laid under the concrete floors to prevent moisture being drawn up from the ground. Should any aspect of the building structure fail a full investigation will be carried to source and rectify any issues as they arise.

Carcass disposal	Inadequate storage of carcasses on site. Carcasses stored on site for prolonged period of time	Carcasses are stored in purpose built locked bins. Carcasses are collected twice weekly. Bins are treated with an odour neutraliser. Following site depletion carcass bins are washed and disinfected to avoid any build up. Washings will be directed to underground holding tanks and removed along with the wash waters. Carcass bins are to be located away from any sensitive receptor and where possible stored in a cool shaded areas, as detailed in the EMS.
Fluctuations in stocking densities depending on growth curves – particularly following any increase from standard	Overcrowding of available bird space. Poor ventilation techniques used for optimum air exchange due to inefficient dispersion Pressure on saturation point of litter resulting in greater levels in moisture. Increased levels in odour concentration and release than that of a lower growth curve and stocking density.	Stocking density assessments, trials and data collection will need to be carried out to obtain the optimum stocking levels required to minimise the environmental impact of the site on nearby sensitive receptor. Assessment and monitoring plan to be comprised and approved by the Environment Agency and a third party monitoring company
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. System are checked daily by farm personnel and recorded any abnormalities or documented and rectified as required.
Destocking of livestock – Thinning and final depletion	Higher levels of odour release through increased ventilation.	Ventilation controls to be used to control the release of odours while still maintaining optimum temperature control throughout the depletion process.

	Turning over of any damp litter during machine access and in house movements. Prolonged depletion schedules and number being removed at any one time. External areas becoming heavily contaminated during depletion.	Machinery movements to be kept to a minimum to help avoid the churning up of damp / wet litter. If areas are excessively high in moisture area are to be replenished with fresh bedding before depletion takes place. Due to the size off the installation it is in the interest of the site to keep everything moving steady and fluid throughout the depletion process. Therefore Factory planners will ensure minimal disruption to the site and surrounding areas. Multiple same house thinning will be kept to a minimum and will be programme for a 30% thin under normal operation. Any abnormal operations will be documented and discussed with the factory planners to best minimise the impact both on the site and any surrounding receptors. If required the local E.A office / site officer will be notified.
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	All internal area are blown down using high pressure air lances to remove areas of trapped dust which in turns help reduce the amount of dirty water generated. This process is usually carried out within 12 hours of the birds being depleted. Litter is scraped into a large heap running the length of the centre of the buildings - this in turn helps aid the drying process and minimises loading time and help make the process more efficient throughout. During this process the shed doors will be closed. As this process carries a lot of hazards for operators working within the buildings, ventilation is required at all times to keep the environment clear of dust and ammonia build up.

		During this time ventilation is needed to run at maximum velocity through the ridge fans only. Gable fans will not be used during this process. Once all the litter is removed and the floors mechanically swept the ventilation system is the powered down. The process takes approximately 2 hours per building to complete and is usually completed within 2 full days. Once trailers are loaded, sheeted down ready to leave site. Only DEFRA approved disinfectant and detergents are used on site and are applied by trained personnel. Dilution as carried out as recommended by the supplying companies with full audited support
Dirty Water management	Standing or open stored dirty water during the production cycle or clean-out. Removal of dirty water form stores	Areas around the houses are concreted and kept clean at all times throughout the flock cycle. At clean-out dirt water is stored in sealed underground containment tanks compliant with SSAFO regulation. Dirty water is removed from site using vacuum tankers on a routinely and as needed basis with all removals being documented through transfer note. Routinely the storage tanks are checked fortnightly, before and after wash down or following any prolonged rainfall. The recovery routes is as detailed in the EMS

On Farm Monitoring and Continual Improvement

- Internal relevant humidity, temperature and littler quality is to be monitored by farm personnel and recorded on each house card daily.
- Weather conditions are monitored and recorded daily, and the use of a mobile monitoring station introduced should any continual problems / complaints arise.
- Complaints and subsequent actions will logged on site.
- Staff will receive annual training regarding Environmental Permitting Regulations – which will include odour management and any new company procedures.
- If requested in house ammonia monitoring can be carried out at specific time during the flock cycle to help gauge further background information on odour release.

Contingency Plans

Odour Related Incident/Accident	Actions taken to prevent and minimise risk
Ventilation system failure	alarm system to indicate failure in ventilation system.
Electrical and mechanical failure on site	agreements in place for 12 hour call out for repairs and/or transfer of birds off site.
Disease breakout	agreements in place to immediately cull birds in case of disease.
Unplanned staff availability	Draft in contract staff to cover temporary shortfall in staff.

Odour Complaints Procedures

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

Investigations shall take into account,

- The activities taking place at the time of the compliant
- The timing of the compliant
- The weather conditions at the time of the compliant
- Any abnormal operations either on site of nearby
- Any changes that may have been made to a standard operational procedure
- 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 Environment Agency. Any practical proactive measures which can be agreed will be implemented to help minimise the impact.

Odour Monitoring

To ensure the control methods within this document are effective a 12 month monitoring assessment is required to identify any and all risks potentially caused by odour.

The assessment will commence from the date of the first bird placement.

Reduction Plan

In the event that monitoring results indicate unacceptable levels of odour emissions, prolonged amenity complaints or breaches of the environmental permit occur, stocking density assessments, trials and data collection will be carried out to obtain the optimum stocking levels require to minimise the environmental impact of the site on sensitive receptors.

Community Engagement

Contact will be made with the Parish Council to open up lines of communication with the Parish Council and the operator. Updates regarding the site will be provided to the Parish Council as and when required.

Review

This OMP will be subject to review following any EA substantiated complaint or every four year whichever is sooner.