

Odour Management Plan

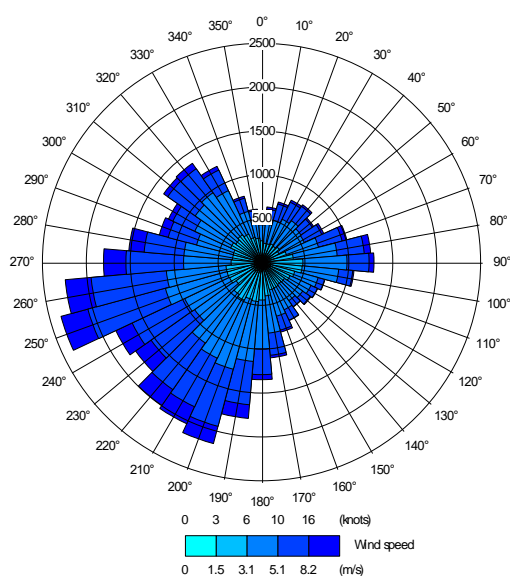
This Odour Management Plan was prepared following the methodology in Sector Guidance Note EPR 6.09 – How to comply with your environmental permit for intensive farming - Appendix 4 - Odour management at intensive livestock installations (Version 2, January 2010) and H4 Odour Management (March 2011).

The following odour sensitive receptors have been identified within 400m of the installation boundary.

Distance from installation boundary	Direction from Installation	Location	Grid Reference (approx.)
41m	NE	Conifers, Silvertoft Lane	TF 29590 41703
183m	SW	Redvers, Cuthbert's Lane	TF 29308 41316
193m	E	Ponderosa, Silvertoft Lane	TF 29731 41555
277m	E	Orange House Farm, Silvertoft Lane	TF 29817 41564

Should any odour complaints be received from any source, including the above identified sensitive receptors, the Odour Complaint Form will be completed. All complaints should be recorded, and causes identified. Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence.

This wind rose over the period 2016-2020 shows the prevailing wind direction comes from the west/south west direction, which would be expected to direct any dust or odour towards the north east.



As part of the assessment of air quality impacts from the operation of the farm, a SCAIL assessment was undertaken. This assessment included quantification of the likely odour emissions under normal operating conditions. The maximum expected odour units at each of the sensitive receptors was determined to be below 3 ou_E m³ and thus insignificant:

- Conifers, Silvertoft Lane – 2.577 ou_E m³
- Redvers, Cuthbert's Lane – 2.867 ou_E m³
- Ponderosa, Silvertoft Lane – 2.385 ou_E m³
- Orange House Farm, Silvertoft Lane – 0.513 ou_E m³

Sources of Odour, Mitigation Measures and Emergency Measures

The table below describes the identified potential sources of odour and the actions and processes in place to mitigate them.

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
Feed delivery and storage	<ul style="list-style-type: none"> • Spillage of feed during delivery and storage. • Creation of dust during feed delivery. 	<p><u>Pre-emptive Measures</u></p> <ul style="list-style-type: none"> • Feed delivery systems are sealed to minimise emissions to air. • The integral condition of the bulk feed storage bins is checked frequently so that any damage or leaks can be repaired promptly. <p><u>Trigger point</u></p> <ul style="list-style-type: none"> • Inspection during or after feed delivery has identified a spillage or issues with the delivery system that could lead to odour and/or dust issues. <p><u>Mitigation Techniques & Speed of Response</u></p> <ul style="list-style-type: none"> • Any spillage of feed around the bulk bins are immediately swept up and collected in bags. • Hand feeding can be implemented for short periods if necessary. <p><u>Duration of Mitigation Action</u></p> <ul style="list-style-type: none"> • Spillage cleaned or damage/leaks repaired. <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • Feed Delivery system has been repaired and/or spillage cleared out. 	<p><u>Trigger Point</u></p> <ul style="list-style-type: none"> • Feed delivery system not fixed. <p><u>Emergency Measures & Speed of Action</u></p> <ul style="list-style-type: none"> • Arrange for removal of stock from house and transfer to alternative house, farm or slaughter. • Action is within 24 hours (bird health as well as odour factors are paramount). <p><u>Duration of Emergency Actions</u></p> <ul style="list-style-type: none"> • Do not re-use house until feed system is restored <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • House is empty, litter removed, cleaning completed. Feed delivery system repaired and functioning.
Ventilation system	<ul style="list-style-type: none"> • Inadequate air movement 	<p><u>Pre-emptive Measures</u></p> <ul style="list-style-type: none"> • The poultry houses are ventilated, and inlet vents and extract fans 	<p><u>Trigger Point</u></p>

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
	<p>within the sheds, leading to higher humidity and wetter spent litter.</p> <ul style="list-style-type: none"> Inadequate ventilation system design causing poor dispersal of odours. Failure of ventilation system 	<p>are computer controlled and adjusted to meet the requirement of the rearing hens depending on climatic conditions.</p> <ul style="list-style-type: none"> The mechanical ventilation system disperses odours more effectively than natural ventilation. The ventilation system is designed to efficiently remove moisture from the shed to maintain the litter in a dry and friable condition. Daily welfare checks on poultry includes listening for fan noise, indicating potential failure. <p><u>Trigger Point</u></p> <ul style="list-style-type: none"> Alarm and/or inspection has identified a major ventilation system failure which is not related to power supply. <p><u>Mitigation Techniques & Speed of Response</u></p> <ul style="list-style-type: none"> Maximise natural air-flow through house by manually opening doors, side vents and fan baffles – subject to age and condition of birds. <p><u>Duration of Mitigating Action</u></p> <ul style="list-style-type: none"> Whilst ventilation is down. Maximum 24 hours <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> Ventilation system is restored 	<ul style="list-style-type: none"> Unable to restore ventilation to house <p><u>Emergency Measure & Speed of Response</u></p> <ul style="list-style-type: none"> Arrange for removal of stock from house and transfer to alternative house, farm or slaughter. Action is within 24 hours (bird health as well as odour factors are paramount). <p><u>Duration of Emergency Actions</u></p> <ul style="list-style-type: none"> Do not re-use house until ventilation system is restored <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> House is empty, litter removed, cleaning completed. Ventilation system is repaired and functioning.
Spent litter management – Drinker systems	<ul style="list-style-type: none"> Odours arising from wet spent litter. Spillage of water from drinking systems. 	<p><u>Pre-emptive Measures</u></p> <ul style="list-style-type: none"> Controls on feed and ventilation help to maintain spent litter quality. Additional controls include: <ul style="list-style-type: none"> Use of nipple drinking systems which minimise spillage. Insulated walls and ceilings to prevent condensation. Concrete floors to prevent water ingress. <p><u>Trigger Point</u></p> <ul style="list-style-type: none"> Daily inspection has identified a water leak inside the house. 	<p><u>Trigger Point</u></p> <ul style="list-style-type: none"> Water leak cannot be stopped or it's excessive and has soaked more than 10% of the litter <p><u>Emergency Measures & Speed of Action</u></p> <ul style="list-style-type: none"> Arrange for removal of stock from house and transfer to alternative house, farm or slaughter. Action is within 24 hours (bird health as

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
		<ul style="list-style-type: none"> • Daily monitoring of metered water consumption identifies change in expected volume. <p><u>Mitigation Techniques & Speed of Action</u></p> <ul style="list-style-type: none"> • Immediately isolate the drinker or pipe to prevent any further leakage of water. • Immediately segregate the area of spillage from the stock with barriers. • Create a channel in the wet litter to allow any free water to drain to the shed drainage channel. • Collect up wet litter in bags, bins or small trailer as necessary. • Keep bags/containers covered and remove from site within 48 hours through designated contractor. <p><u>Duration of Mitigating Actions</u></p> <ul style="list-style-type: none"> • Until leaked is repaired. This is within 6 hours if localised and contained. • Until all wetted litter has been removed and replaced and leak has been rectified. • Barriers to segregate to be removed within 48 hours. <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • Drinker system is fully repaired, wet litter replaced, and barriers removed. 	<p>well as odour factors are paramount).</p> <ul style="list-style-type: none"> • Shut off mains supply to house and introduce temporary manual drinking troughs if welfare needs dictate. • Immediately isolate. <p><u>Duration of Emergency Actions</u></p> <ul style="list-style-type: none"> • Do not re-use house until drinker system is restored <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • House is empty, litter removed, cleaning completed. Drinker system is repaired and functioning.
Spent litter management – Stock health	<ul style="list-style-type: none"> • Disease outbreaks, leading to wetter spent litter. • Inadequate storage of carcasses on site. 	<p><u>Pre-emptive Measures</u></p> <ul style="list-style-type: none"> • Mortalities are stored in a freezer locked within a poultry house before they are removed from the site for disposal via a DEFRA registered rendering contractor. • Stocking density at optimal levels. <p><u>Trigger Point</u></p> <ul style="list-style-type: none"> • Inspection has identified a serious disease situation with high mortality and/or insufficient storage capacity. <p><u>Mitigation Techniques & Speed of Response</u></p>	<p><u>Trigger Point</u></p> <ul style="list-style-type: none"> • Disease situation is not responding to treatment and mortalities are increasing significantly over 48-hour period. <p><u>Emergency Measures & Speed of Response</u></p> <ul style="list-style-type: none"> • Situation would invariably require immediate involvement of veterinarian. • Arrange for removal of stock from house for

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
		<ul style="list-style-type: none"> • If the quantity of deadstock is beyond the available storage capacity, a back-up container is used or an area of the shed is immediately fenced off from the stock and dead birds are left in the shed (spaced out to reduce heat and slow any decomposition) awaiting collection by ABP contractor. Ventilation is running at all times. • Collection is arranged and completed within 24 hours, and then ongoing at daily intervals as required and permitted by the disease situation. • Additional bins/freezers are made available within 24 hours (from ABP contractor or internal transfer) • Excessively soiled litter to be collected into covered containers or trailers inside the shed from fenced off areas and removed immediately from site. <p><u>Duration of Mitigating Actions</u></p> <ul style="list-style-type: none"> • Until disease situation is under control. • All excessively soiled litter has been removed and replaced, and barriers to segregate stock removed within 48 hours (subject to welfare constraints). <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • Flock health is returned to normal status. 	<p>slaughter (subject to veterinary guidance).</p> <ul style="list-style-type: none"> • Action is within 72 hours (normally required to complete FCI clearance for slaughter). • Use of Health Plan with specialist veterinary input used as necessary. <p><u>Duration of Mitigating Actions</u></p> <ul style="list-style-type: none"> • Do not re-use house until fully cleaned, disinfected and microbiologically tested. <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • House is cleared for re-stocking
House clean out & washing operations	<ul style="list-style-type: none"> • Creation of dust and odours associated with spent litter removal from sheds. • Use of odorous products to clean the sheds. 	<p><u>Pre-emptive Measures</u></p> <ul style="list-style-type: none"> • Manure/spent litter is stored within the houses for the entire duration of the crop. • The process to clean out sheds begins within 24 hours of destocking. Ventilation systems are not operational during this time. • Spent litter is carefully loaded into trailers positioned at the entrance to each shed. When loaded the trailer is covered. 	<p><u>Trigger Point</u></p> <ul style="list-style-type: none"> • Blocked drain cannot be cleared within 12 hours and odour is problematic <p><u>Mitigation Techniques & Speed of Response</u></p> <ul style="list-style-type: none"> • Third-party drain clearance services are used as emergency response to resolve the blockage

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
	<ul style="list-style-type: none"> • Blocked or foul drains causing releases of odour • ‘Standing’ dirty water during the production cycle or at clean out. • Application of dirty water to land 	<ul style="list-style-type: none"> • Only DEFRA approved and suitable cleaning products are used. • Areas around the shed are hard-surfaced and remain clean during the production cycle. • At clean out, dirty wash water is directed into the above ground tank for storage. It is then spread to third party land by contractor in accordance with Codes of Good Agricultural Practice. <p><u>Trigger Point</u></p> <ul style="list-style-type: none"> • Blocked / foul drain identified during washing or routine inspections. <p><u>Mitigation Techniques & Speed of Response</u></p> <ul style="list-style-type: none"> • Blockage is to be cleared within 12 hours if third party specialist drain pressure jetting service is needed. Target within 4 hours if site has sufficient capability to rod drain. • Drains can be covered with bales of shavings immediately to suppress the release of odorous gasses and helping to reverse odour into ventilated shed space. • Prevent any spillage to clean water courses immediately and resolve the problem if any drainage malfunction is identified. • If a drain is blocked in a house, then washing is suspended until the blockage is removed. In extreme circumstances a drainpipe would be excavated to clear and/or replace. • If any water has escaped or is escaping out of the house then this is banded using bales of shavings, loose shavings may be used to soak up any water and prevent run-off to surrounding water courses. Any soiled shavings are then collected into suitable containers for immediate removal from site. • A dirty water tanker with pump would be introduced if water has backed-up into the house to 	<ul style="list-style-type: none"> • Drain to be pumped out into mobile tanker whilst blockage is further investigated. • If significant work is required (e.g. excavation), then the drain is pumped out and work is to be completed within 72 hours. <p><u>Duration of Mitigation Action</u></p> <ul style="list-style-type: none"> • Unit blockage has been removed. <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • Drainage working correctly and clear of fouling. Verified by inspection and testing.

Odour Related Issue	Potential Risks	Mitigation Measures	Emergency Measures
		<p>prevent any dirty water spilling into the yard.</p> <ul style="list-style-type: none"> • If a tank freeboard is breached, then a dirty water tanker with pump would be introduced to empty the tank and prevent overspill to clean water courses. • Temporary bunding would be introduced at any point of overspill to watercourses using shavings or plastic sheeting as is appropriate. • Washing would be suspended until the tank is empty. <p><u>Duration of Mitigation Action</u></p> <ul style="list-style-type: none"> • Until blockage has been removed. <p><u>Cessation of Action</u></p> <ul style="list-style-type: none"> • Drainage working correctly and clear of fouling. Verified by inspection and testing. 	
Emergency situation – Fire	<ul style="list-style-type: none"> • Combustion of buildings. • Bird mortalities and disposal. 	<ul style="list-style-type: none"> • A site emergency plan has been prepared. • Electrical supplies to all the shed are professionally fitted, inspected and maintained. • Flammable materials (fuels, etc) are stored away from the poultry sheds to reduce fire hazards. 	<ul style="list-style-type: none"> • As per emergency plan.

Odour Monitoring

Daily sniff tests will be undertaken by site personnel at the main gate (TF29540 41687) and the site boundary to the east of the poultry houses (TF 29527 41510). This are located at the boundary of the installation and between the poultry houses and the identified sensitive receptors, in the direction of the most common prevailing wind.

A daily check sheet will be completed to record the sniff tests and any follow up action required.

Staff undertaking sniff tests will do so before entering the poultry houses at the beginning of their shift, and have been reminded to avoid strong flavours and odours before undertaking sniff tests. Should more than one employee arrive at the same time, both will carry out sniff tests to increase reliability.

Sniff test results are to be classified under the following system:

- No odour detected – No odours related to the farm are detectable at the sniff test location.
- Barely perceptible/very faint – A slight odour related to the farm is detectable at the sniff test location. If any operations are being undertaken such as feed delivery or cleaning operations, this is to be recorded on the form.

- Distinct – any odour above barely perceptible. This will warrant notification to management who will attend site to undertake another sniff test and initiate the odour response measures.

Review of this plan

This plan will be reviewed by management at least annually or following receipt of odour complaints.

Odour Complaint Form

<i>Complete this form in as much detail as possible, in accordance with the requirements of the Odour Management Plan.</i>	Date Recorded:	Reference Number:
Name and address of complainant		
Telephone number of complainant		
Details of complaint		
Date, time and duration of offending odour		
Odour description e.g. comparison with other odours, strong/weak, continuous, fluctuating.		
Any other comments from complainant,		
Weather conditions (e.g. dry, rain, fog, snow)		
Wind strength and direction (e.g. light, steady, strong, gusting) or use Beaufort scale		
Any previous complaints relating to this odour?	Yes / No	
Any other relevant information.		
Potential odour sources that could give rise to the complaint.		
Operating conditions at the time offending odour occurred e.g. removing spent litter, clean out.		

Follow up			
Date and time complainant contacted			
Action taken			
Amendment required to the odour management plan?		Yes / No	
Form completed by		Signed	

Odour Test Record Form

This records must be made daily. Tick to record that a sniff test has been carried out. If any odour is detected, record the time of the test and the intensity of the odour. Implement checks on generator, feed systems and ventilation fans.

Month:					
Sniff test carried out at		Odour detected: Time	Odour detected: Intensity	Odour Detected: Follow-up actions	
Main gate	East Fence				
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					