Odour Management Plan for Grove Farm Pig Unit

The nature of livestock farming means that preventing odour generation at source is rarely possible as animals are inherently odorous. However, there are things that can be done, often at low cost, to minimise odour or prevent it reaching neighbours.

The H1 environmental risk assessment submitted with the application for a bespoke environmental permit identified sources of odour with the potential to cause annoyance. Created this odour management plan (OMP) to support the overall environmental management system in place. The overriding principle is to ensure day-to-day activities are carried out in accordance with the plan so there is no reasonable cause for annoyance to people outside the installation boundary. Significant pollution is not expected; operator has no record or recollections of odour concerns or complaints and will continue to foster good relations with neighbours

Actions and contingency actions in this OMP are best available techniques (BAT) in accordance with Best Available Techniques (BAT) Reference Document 2017, Environment Agency (2010) EPR 6.09 Sector Guidance Note; How to comply – Intensive Farming v2; Appendix 4 Odour management at intensive livestock installations, Odour Management: comply with your environmental permit on the government website at https://www.gov.uk/guidance/odour-management-comply-with-your-environment-permit (especially for monitoring and responding to complaints), and Environment Agency (2013) Poultry Industry Good Practice Checklist.

Identified sensitive receptors within 400m of the installation boundary (excluding the nearest residential dwelling for the operator at Grove Farm and agricultural premises under the control of the operator) from a desk top study shown in Table 1 and Figure 1: -

Table 1. Grove Farm Pig Unit sensitive receptors within 400m

Nº.	Receptor	Address	NGR	Direction	Distance from boundary metres
1	PROW	Grove Road, Gissing, Diss, IP22 5XA (Grove Farm)	TM 15385 85177	E	2
2	Residential	Grove Road, Gissing, Diss, IP22 5XA (The Harralds)	TM 15191 85075	W	183
3	Residential	Rectory Road. Gissing, Diss, IP22 5XB (The Old Rectory)	TM 15013 8/5201	W	342
4	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Meadow Sweet)	TM 15130 85317	W	273
5	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Redlands)	TM 15145 85353	W	284
6	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Maple Villa)	TM 15146 85384	W	292
7	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Millfield)	TM 15112 85442	NW	346
8	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Old Mill House)	TM 15072 85439	NW	386
9	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Sunnyside)	TM 15159 85482	NW	331

10	Residential	Rectory Road. Gissing, Diss, IP22 5UZ (Grove Bungalow)	TM 15153 85508	NW	352
11	Residential	Rectory Road. Gissing, Diss, IP22 5XB (Appleby)	TM 15192 85518	NW	329
12	Residential	Rectory Road. Gissing, Diss, IP22 5UX (Arch Bungalow)	TM 15150 85556	NW	386
13	Residential	Rectory Road. Gissing, Diss, IP22 5UX (Willow)	TM 15168 85579	NW	391
14	Residential	Rectory Road. Gissing, Diss, IP22 5UX (Spinney Cottage)	TM 15234 85599	NW	367
15	Residential	Rectory Road. Gissing, Diss, IP22 5UX (Bridge View)	TM 15195 85566	NW	362
16	Residential	Rectory Road. Gissing, Diss, IP22 5UX (Arch Cottage)	TM 15220 85571	NW	351
17	Residential	Hall Green, Gissing, Diss, IP22 5UY (Maybank)	TM 15173 85513	NW	340
18	Residential	Hall Green, Gissing, Diss, IP22 5UY (Hawthorns)	TM 15318 86503	NW	334
19	Residential	Hall Green, Gissing, Diss, IP22 5UY (High Grove)	TM 15310 85544	NW	283
20	Residential	Hall Green, Gissing, Diss, IP22 5UY (Glebe Farm)	TM 15462 85645	N	361

Distance from boundary to building facade measured on government website at magic.defra.gov.uk

Fig 1. Grove Farm Pig Unit sensitive receptor locations within 400m



Wind direction is defined as the direction from which the wind is blowing. According to the Met Office Eastern England Climate Report - as Atlantic depressions pass by the UK the wind typically starts to blow from the south or south-west but later comes from the west or north-west as the depression moves away. Directions between south and north-west account for most occasions and the strongest winds nearly always blow from this range. Averaged across the year the prevailing wind direction is from the southwest.

Residential dwellings are high sensitivity receptors and reasonably expect enjoyment of a high level of amenity, and people would reasonably be expected to be present here continuously, or at least regularly for extended periods. On most occasions the sensitive receptors will not be exposed to odour. PROW are low sensitivity receptors where there is transient exposure, where the people would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use.

The following table sets out: -

- Sources of odour from a typical intensive pig unit
- Routine actions at Grove Farm Pig Unit to minimise odour levels
- Contingency actions to limit exposure to elevated odour levels beyond the installation boundary.

Table 2. Routine actions and contingency actions to minimise odour and odour risks at Grove Farm Pig Unit

Odour related issue	Potential risks and problems	Routine actions to minimise odour and odour risks	Contingency actions to minimise odour and odour risks
Effects of diet on odour and ammonia	• High protein diet increases nitrogen & sulphur content of manure • Feeds which are unbalanced in nutrients lead to increased excretion and emission of ammonia and other odorous compounds • Poor quality ingredients.	• Feed specifications created and continually reviewed with a professional nutritionist to ensure performance. • Feed supplied from mills in certification schemes only use approved ingredients. • Reduced percentage crude protein (%CP) content using a nitrogen balanced diet based on energy needs and digestible amino acids. • Multiphase, ad-lib feeding with two separate diets. • Formulated diets to matching (as closely as possible) nitrogen content to pigs' requirements at each stage of growth and decreasing percentage crude protein to minimise nitrogen excretion, and odour. • Addition of controlled amounts of essential amino acids. Highly digestible amino acid analogues lysine, methionine, threonine, and valine added in milling to supplement otherwise low naturally occurring crude protein level in wheat grains. • Keep feed records in the farm office.	
Odour from feed delivery and storage	• Creation of dust and related odour during delivery • Spillages of feed • Spoilage of feed.	• Responsibility – Farmworker • Installed package enclosed feed storage silos, pipes, augers, and feeders inside houses to prevent feed getting wet and spoiling. • Silos protected from collision damage by careful siting relative to traffic flow with measures such as provision of kerbs or other markers to stop reversing vehicles. • Package feeders designed and operated to prevent waste in front of feeders and pigs from climbing in. • Feed delivery vehicles always covered. • Feed deliveries monitored by driver and farmworkers.	• Responsibility – Farmworker Trigger • Feed spillage during delivery • Fault with the feeding equipment. Timeframe for implementation • Immediately/same day Contingency action • Spillage cleared up into bags by drivers/ operators for feeding to pigs. • Store in secure place to prevent access to pests.

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		• Checking for any faults with the feeding equipment in walk through checks start of every day (e.g. augers running empty, spillage, squealing pigs, etc.) to minimise opportunity for odour release • Planned preventive maintenance for buildings and equipment in accordance with any manufacturer's instructions and keeping records of the work. • Checking condition of feed silos monthly so damage, & leaks will be identified quickly. • No feed manufacturing, milling, or mixing onsite.	• Wet or contaminated feed cleared up into bags or into the trade waste bin or skip onsite and removed on the next scheduled emptying or changeover. • Contact waste carrier to deliver & collect a skip same day or next day for offsite disposal if required. • Equipment defects must be rectified immediately, same day by operator or professional contractors. Duration of action • Achievable same day, bins or skips to be emptied. Cessation of action • Spillage cleared up and delivered into pig houses for feeding, or for offsite disposal. • Defects repaired.
Odour issues using solid floor (straw-based management system)	• Building design • Natural side ventilation • Overcrowding • Insufficient or poor-quality straw • Increased odour from wet bedding	• Responsibility – Farmworker • Concrete floors poured over a continuous damp-proof membrane, prevents moisture being drawn up from the ground & insulated ceilings prevent condensation of moisture in the air. • Solid concrete floors comprising scraped areas that prevent ponding or buildup of urine and dung passages and bedding areas are sloped to drain urine and prevent ponding in houses. • Pens and wall surfaces are constructed with non-porous surfaces. • Dunging and lying areas are clearly differentiated to ensure laying areas are kept clean and dry. • Dunging areas in naturally ventilated buildings sited beneath air inlets. Draughts will be avoided in lying areas.	• Responsibility – Farmworker Trigger • Wet bedding/dirty pigs. • Elevated odour level in house. Timeframe for implementation • Immediate, same day. Contingency action • Scrape out more frequently and replace bedding. • Use sufficient new straw on laying areas to be comfortable for pigs to lay on and absorb all liquid to keep pigs and surfaces dry and clean, and to bind nitrogen to reduce ammonia in air. • Greater depth of straw provides more comfort and will absorb all the liquid in the passage and bind better with the dung. • Wet, mouldy, poor-quality straw is not to be used.

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Odour related issue	Potential risks and problems	Routine actions to minimise odour and odour risks	Contingency actions to minimise odour and odour risks
		• Specification and design of ventilation system to provide good air quality for pigs and farmworkers • Prior to pigs arriving sufficient new straw bedding will be provided to be comfortable for pigs to lay on and absorb all liquid to keep pigs and surfaces dry and clean and to bind nitrogen to reduce ammonia in air. • Prefer long barley straw in big bales rather than short straw, subject to availability and cost. According to EPR6.09 How to comply wheat straw is slightly more absorbent however based on operator experience it is not as soft or palatable and dustier. • Store straw undercover in barn keeps it dry and clean to prevent deterioration and waste and monitoring quality, stock, and usage. • Pig stocking density will be in accordance with the regulations, or lower in a certification scheme. • Ventilation is controlled & monitored to meet welfare requirements for pigs and ensure productivity. • Monitoring temperature & humidity in houses as part of daily welfare checks for example checking for abnormal strong odour and humidity, wet bedding, leaking drinkers, clinical signs of disease or vice. • Keeping the animals and surfaces clean & dry (BAT). • Checking cleanliness of pens and pigs as part of daily welfare checks. • Dunging & laying areas scraped out regularly and replace with sufficient new straw in laying areas to be comfortable for pigs to lay on and absorb all liquid to keep pigs and surfaces dry and clean, and to bind nitrogen to reduce ammonia in air. Scrape out laying	Duration of action • Continue scraping out more frequently as required and replacing the bedding. • Until a better supply of good straw can be delivered. Cessation of action • Clean pigs and all the urine being absorbed by straw in the dunging areas without ponding • Monitoring odour by sniff-testing, especially outside close to the installation boundary to confirm odour from inside houses has reduced to normal level.

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		area first, so pigs excrete in dunging area when they first moved, not clean laying area. • Planned preventive maintenance for buildings and equipment in accordance with any manufacturer's instructions and keeping records of the work.	
Odour issues on concrete yard	• Minimised surface area which can release odour • Urine ponding	• Responsibility – Farmworker • Yards and open surfaces designed to ensure effective separation of uncontaminated rainwater from slurry and manure. Sloping concrete to prevent urine & slurry ponding. • Keeping yards visibly clean. Keeping drainage channels clear and cleaning up accumulations of spilt feed and dust. • Concrete yard will be kept in good state of repair. • Preventive maintenance programme for buildings & equipment and keeping records.	• Responsibility – Operator Trigger • Cracks, potholes, urine or slurry ponding. Timeframe for implementation • As soon as possible. Contingency action • Repair any cracks or potholes. Duration of action • Achievable in short term, days, weeks. Cessation of action Cracks, potholes repaired, no ponding.
Odour issues with wet bedding and drinking water systems	• Design • Operation • Spillages • Pigs drink more in warm weather	• Responsibility – Farmworker • Package nipple drinkers are designed and operated to prevent wastage, leaks and wet bedding. • Frequently adjusting to correct height as pigs grow to minimise spillage and wet bedding. • Check nipple drinkers are working and for leaks in walk-through welfare checks start of every day. • Water consumption monitored daily with meters.	• Responsibility – Farmworker Trigger • Obvious leaks (water running, squealing pigs) • Abnormal strong odour from wet bedding • Abnormal high water used Timeframe for implementation • Immediately, same day. Contingency action • Repair leak. • Scrape out as required and replace the bedding. • Use sufficient new straw on laying areas to be comfortable for pigs to lay on and absorb all liquid to

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			keep pigs and surfaces dry and clean, and to bind nitrogen to reduce ammonia in air. • Greater depth of straw provides more comfort and will absorb all the liquid in the passage and bind better with the dung. Duration of action • Repairs are achievable same day. • Keep checking for leaks. Cessation of action • Leak repaired, pushed out and bedding replaced. • Monitoring odour by sniff-testing, especially outside close to the installation boundary to confirm odour from inside houses has been reduced to normal level.
Odour issues with washout	• Wet bedding and surfaces • Using odorous products to disinfect houses	• Responsibility – Farmworker • Washout houses after destocking three times per year • Washout in normal daytime 07.00-23.00 hours in working week Monday to Friday and Saturday morning but exclusive of public and bank holidays in accordance with How to comply. • Washout as soon as possible, normally within one day of destocking and not normally more than 3 days for example destocking on a Friday and washout on Monday. Washout in as short a time as possible. • Push out dunging and laying areas first. • Pre-rinse to reduce time, dust, and odour. • Remove dust on ceilings, feeders and drinkers, etc. • Use pressure washers to reduce water use & slurry. • Defra approved disinfectants are slightly odorous. Used in accordance with manufacturer's instructions.	• Responsibility – Farmworker Trigger • Delays, breakdowns, unforeseen circumstances. • Problems in pig processing can result in housing pigs longer and no washout owing to holding pigs longer and small pigs waiting to be delivered. Timeframe for implementation • Immediate, same day. Contingency action • Topping up straw bedding to reduce humidity in lying areas to keep pigs and surfaces clean and dry. • Washout one or more houses whenever possible. Duration of action • Until washout can be started. • Processing issues can take months to be resolved. Cessation of action

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Odour related issue	Potential risks and problems	Routine actions to minimise odour and odour risks	Contingency actions to minimise odour and odour risks
			• Washout started.
Odour issues with storing solid manure	• Slurry runoff. • Elevated odour from storage & loading into trailers.	• Responsibility – Farmworker • Removing manure frequently to an external (covered) manure store (BAT). • Reducing the emitting surface of manure heap (BAT). • Collection and containment system in place for slurry runoff into tanks & keep drainage channels clear. • Export solid manure offsite for land spreading. • Loading restricted to normal day time 07.00-23.00 hours in the working week (Monday to Friday and Saturday morning but exclusive of bank holidays) to avoid annoyance at weekends and bank holidays. • Load in as short a time as possible.	
Odour issues with storing slurry (A mixture of mainly excreta, bedding, rainwater, & washings)	• Elevated odour from slurry during movements	• Responsibility – Farmworker • Above ground slurry tanks covered with free floating plastic plates. • Export slurry offsite for land spreading. • Minimise stirring of slurry during loading. • Removing slurry from lagoon restricted to normal working times 07.00-23.00 hours in the working week (Monday to Friday and Saturday morning but exclusive of bank holidays). • Load in as short a time as possible.	

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Odour issues with slurry spreading and manure management planning – offsite activity	• Exported offsite for spreading on land owned by the operator and on land owned by a third party	• Responsibility – Operator. • Landspreading solid manure and slurry in accordance with management plans for receiving land in an NVZ to confer agricultural benefit. • Landspreading solid manure in accordance with Defra code of good agricultural practice. Manure to be incorporated as soon as possible and within 12 hours at the latest to minimise nitrogen loss [and odour]. • Slurry to be applied to growing crops, where possible. • Use a low trajectory splash plate or boom for slurry spreading.	
Odour issues with storing pig carcasses	• Inadequate storage for carcasses onsite • Carcasses stored for prolonged time	• Responsibility – Farmworker. • Check for any dead pigs in walk-through welfare checks start of every day and removed from pen. • Carcasses stored in non-leaking, covered containers to minimise odour and flies. • Frequently removed under National Fallen Stock Scheme. Fortnightly collections normally adequate. • Monitoring storage area daily for odour and flies, making sure there are sufficient available containers and storage capacity.	• Responsibility – Operator. Trigger • Leaking containers or left uncovered, attracting flies. • Higher mortality in warmer weather or disease. • Collection delayed. Timeframe for implementation • Immediate, same day. Contingency action • Refit the covers or stop using any leaking bins. • Clean & disinfect spillages on the concrete. • Contact transporter for more frequent collection, start same day, next day, or as soon as possible. • In event normal contractor isn't available in time seek another via Defra National fallen stock scheme. Duration of action • Achievable same day or in 1 or 2 days. • Continue with the more frequent collections. Cessation of action

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Odour related issue	Potential risks and problems	Routine actions to minimise odour and odour risks	Contingency actions to minimise odour and odour risks
			• Carcases removed offsite. • Monitoring odour by sniff-testing, especially outside close to the installation boundary to confirm any noticeable carcase odour reduced to normal level.
Bio-security issues	• Disease and increased mortality, although significant disease outbreaks in commercial pigs are rare	• Operator & farmworkers well managed, supervised, appropriately trained and qualified including holiday cover, part-time and temporary staff. • Use a health plan with professional veterinary input. • Inspect all the pigs in walk-through welfare checks start of every day.	• Responsibility – Operator. Trigger • Extraordinary wet bedding, elevated odour level. • Increase in pig morbidity or mortality. Timeframe for implementation • Immediate, same day. Contingency action • Investigate symptoms, causes of any morbidity or mortality with senior management. • Obtain veterinary assistance quickly. • Treatment with medication maybe required. Duration of action • Achievable same day. • Continue any treatment and medication until mortality has reduced to typical level. Cessation of action • Comply with veterinary instructions and treatments until level of morbidity and mortality reduced to normal. • Monitoring odour by sniff-testing, especially outside close to the installation boundary to confirm odour from inside houses has been reduced to normal level.
Monitoring	• Monitoring odour levels daily at source can help	• Responsibility – Operator. • Site tour every day including perimeter, sniff-testing for any abnormal elevated odour levels with potential	• Responsibility – Operator. Trigger • Extraordinary or particularly offensive odour offsite.

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	identify any increase in level with time so remedial action can be taken.	to cause annoyance offsite, plus monitoring relevant events in the local area. • Persons accustomed to odour through exposure may not be able to detect or judge intensity of odour offsite. Persons who have not recently been working on the farm might be more helpful. • Anyone with a cold, sinusitis, or a sore throat will underestimate odour. Strong food or drinks, including coffee to be avoided for at least half an hour before sniff testing and avoid strongly scented toiletries and deodorisers in vehicles, etc. • Training for farmworkers on complying with conditions in the environmental permit including the OMP.	Timeframe for implementation • Immediate, same day. Contingency action • Check routine and contingency actions to minimise odour and risks are being adhered to. • Tell anyone likely to be seriously affected, what has been done or still needs to be done to reduce any extraordinary odour and duration with timescales. • Continue checking at perimeter, sniff-testing until odour reduced back to normal. • Weather stations are inexpensive & easy to install for 24/7 monitoring & investigating complaints, if required. Duration of action • Normally achievable same day, next day. Cessation of action • Confirmed odour has been reduced to typical level. • Record events and actions in farm diary.
Complaint	• Wind direction exposing receptors to odour • Odour sensitivity likely to increase in warm weather when people want to enjoy their gardens and have windows open more.	• Responsibility – Operator. • Investigate any complaint reported by the Agency, local authority, or the public.	• Responsibility – Operator. Trigger • Complaint reported on Saturday or Sunday by email from Agency, or local authority, not considered likely from anywhere else. Timeframe for implementation • Same day on opening email. Contingency action • Investigate if alleged odour can be substantiated. Even if no longer apparent the investigation must still be carried out and recorded same day, next day.

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	• Slow response • Elevated level of annoyance.		• Check routine and contingency actions to minimise odour and risks are being adhered to. Establish: - • Time odour occurred, duration, description of odour. • Activities taking place onsite at time of complaint. • Any odorous activities taking place offsite in the vicinity • Record all details of investigation and action taken on odour complaint report form. Keeping records for future reference, or inspection with the Environment Agency. • If substantiated odour complaints are received over a one-month period without resolution to the odour problem, a formal action plan with measures and timescales for relevant odour issues shall be presented to the Environment Agency for approval. Duration of action • Investigation likely achievable same day, next day. Cessation of action • Notify the Agency, local authority, complainant, anyone else likely to be seriously affected, same day as soon as possible result of investigation and corrective action or what still needs to be done with timescales.
Review	Keeping up to date	• Responsibility – Operator. • Review the OMP annually. • Make changes anytime sooner after: • Any change to operations at the installation • Within 24 hours of a substantiated complaint.	

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Odour related issue	Potential risks and problems	Routine actions to minimise odour and odour risks	Contingency actions to minimise odour and odour risks

Change history	Date	Name
Last updated	13/10/2026	Karl Collett
Last review		
Next review	12/10/2026	-
13/10/26 Created plan to support an application for a bespoke environmental permit.		

Odour Complaint Report

Time and date of complaint	
Name and address of complainant	
Telephone number of complainants	

Date of odour	
Time of odour	
Location of odour, if not at above address	
Weather conditions *(Dry, rain. fog, snow)*	
Temperature *(Very warm, warm, mild, cold or degrees if known)*	
Wind strength *(None, light, steady, strong, gusting)*	
Wind direction *(e.g., from SW)*	
Complainant's description of odour What does it smell like? Odour intensity 0 No odour 1 Very faint odour 2 Faint odour 3 Distinct odour 4 Strong odour 5 Very strong odour 6 Extremely strong odour	
○ Duration (time)	
○ Constant or intermittent in this period	
○ Does the complainant have any other comments about the odour?	
Are there any other complaints relating to the installation, or to that location (either previously or relating to the same exposure):	
Any other relevant information:	
Do you accept that odour likely to be from your activities?	
What was happening on site at the time the odour occurred?	
Actions taken	

Complainant visited		
Complainant contacted with an explanation Yes/No Date By whom		
Form completed by	Date:	Signed:

Odour Management: comply with your environmental permit on the government website at
https://www.gov.uk/guidance/odour-management-comply-with-your-environment-permit