Odour Management Plan for Feltwell Farm Pig Unit (comprising Airfield Farm & Feltwell Farm)

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 an application to vary the permit for redevelopment of Feltwell Farm Pig Unit identified sources of odour with potential to cause annoyance. Created and updated this odour management plan (OMP) to support the overall environmental management system in place at Feltwell Fm. 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 not 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, Environment Agency (2011) Additional guidance for H4 Odour Management: How to comply with your environmental permit (especially for monitoring and responding to complaints), and Environment Agency (2013) Pig Industry Good Practice Checklist.

Identified sensitive receptors within 400m of the installation boundary from a site walkover and desk top study. The residential dwellings at Feltwell Fm are not owned by the operator or occupied by workers at Airfield, Feltwell or Methwold (Breckland) Fm. The receptors are shown in Table 1 and Figure 1:-

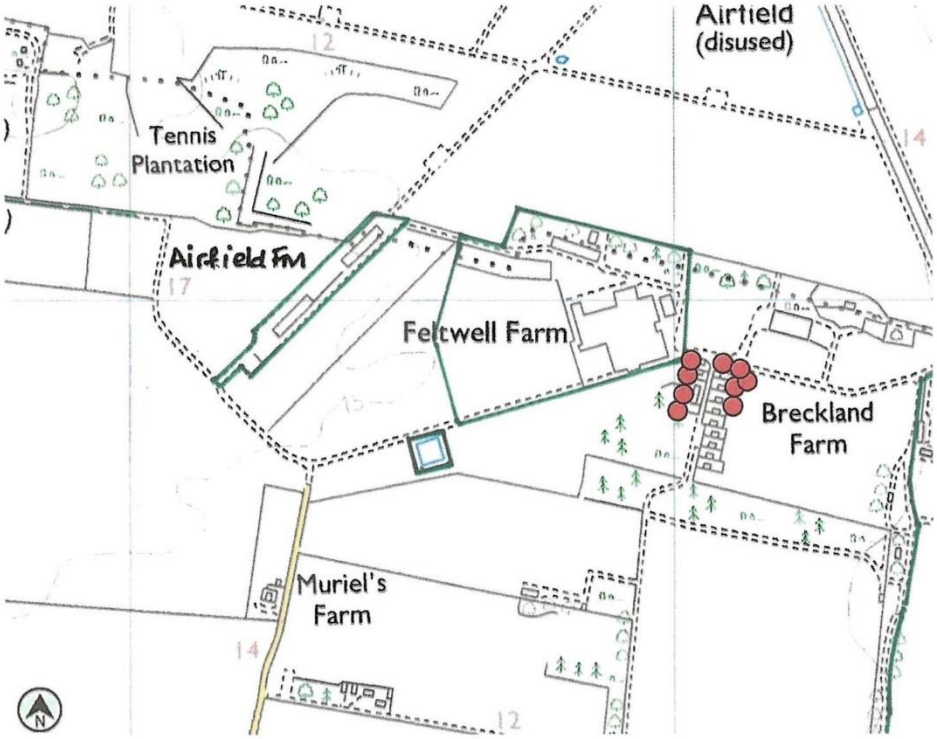
Table 1. Feltwell Farm Pig Unit odour sensitive receptors within 400m

Nº.	Receptor	NGR	Direction	Distance from boundary
1	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73050 92888	SSE	20m
2	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73047 92870	SSE	30m
3	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73046 92846	SSE	50m
4	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	~~TL 73049 92849~~ TL 73035 92829	SSE	65m
5	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73079 92861	SSE	60m
6	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73085 92858	SSE	70m
7	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73089 92856	SSE	75m

8	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73078 92839	SSE	75m
9	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73075 92820	SSE	90m
10	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73070 92801	SSE	105m
11	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73067 92781	SSE	120m
12	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73071 92760	SSE	140m
13	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73067 92741	SSE	160m
14	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73063 92721	SSE	180m
15	Residential - Feltwell Farm, Lodge Road, Feltwell, Thetford, IP26 4DU	TL 73060 92705	SSE	190m
16	Industrial - Warren Energy Ltd, Brandon Road, Methwold, Thetford, IP26 4RJ	TL 73179 92946	E	165m
17	Residential - Brandon Road, Methwold, Thetford, IP26 4RJ	TL 73362 92998	E	340m
18	Residential - Muriel's Farm, Old Methwold Road, Feltwell, Thetford, IP26 4DX	TL 72279 92500	SW	365m
19	Agricultural - Annyalla Poultry Fm, Brandon Rd, Methwold, Thetford, IP26 4RJ	TL 72181 93430	NW	395m
20	Residential - Brandon Road, Methwold, Thetford, IP26 4RJ	TL 72284 93478	NW	370m
21	Residential - Brandon Road, Methwold, Thetford, IP26 4RJ (Planned)	TL 72324 93492	NW	380m

Distances measured on government website at magic.defra.gov.uk

Fig 1. Feltwell Fm 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 the majority of 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 have high sensitivity – people would reasonably expect enjoyment of a high level of amenity, and where people would reasonably be expected to be present continuously, or at least regularly for extended periods. Residential dwellings will not be exposed to odour on the majority of occasions.

Industrial and agricultural premises likely have low sensitivity – where the enjoyment of amenity would not reasonably be expected, or 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
- Actions taken at Feltwell Fm to prevent or 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 Feltwell 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 & ammonia emissions	• High protein diet increases nitrogen & sulphur content of manure • Feeds which are unbalanced in nutrients leading to increased excretion and emissions of ammonia and other odorous compounds. • Poor quality ingredients	• Professional pig nutritionist regularly reviews diets & least cost formulations to meet nutrient requirements. Ain for high feed protein utilisation with diets formulated to achieve high production efficiencies. • Feed pigs three separate diets matching (as closely as possible) nitrogen content to pigs' requirements at each stage of growth. With decreasing crude protein in diets to reduce nitrogen excretion, and odour. • Synthetic essential amino acids added to supplement naturally low crude protein in wheat-based diets. • Authorised feed additives for example benzoic acid maybe added to diets specifically to reduce nitrogen excretion. However, the benefit has only been described in the BAT reference document when provided to pigs on slurry-based systems, not straw. • Feeds supplied from mills in certification schemes only use approved ingredients. • No feed manufacturing, milling, or mixing onsite.	
Odour from feed delivery and storage	• Creation of dust and related odour during delivery • Spillages of feed during delivery storage and subsequent spoilage	• Installed package enclosed feed storage silos, pipes, augers, and feeders inside houses to prevent feed getting wet, minimise dust creation and odour. • Silos protected from collision damage by careful siting relative to traffic flows - in between pig rearing houses keeps them out of the path of HGVs, and easily connected for blowing in feed over as short a distance as possible. • Feed delivery vehicles always covered. • Deliveries monitored by drivers and farmworkers, and any spillage cleared up immediately (BAT13).	Trigger • Feed spillage anytime. Timeframe for implementation • Immediate/same day. Contingency action • Minor spillage judged <500kg cleared up into bags by drivers or farmworkers and stored in a secure place to prevent access by pests for disposal. • Spillage judged.>500kg the drivers or farmworkers callout the mill immediately, to make a vehicle, human resources available to clear up and properly deliver

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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
		• Keep a sample of every feed delivery for quality assessment and feed documentation for traceability. • Farm workers inspect automatic equipment on which pigs depend not less than once per day as part of daily welfare check. • Preventive maintenance programme for buildings & equipment with farmworkers, maintenance team, and professional contractors in accordance with manufacturer's instructions and keeping records. • Farm manager checking condition of feed silos monthly so damage, leaks are identified quickly.	into a silo to avoid waste if feed is in a fit condition to be used. Wet or contaminated feed cleared up into bags or a skip for disposal. • Manager will have to callout a waste carrier to supply a covered skip same day for any large spillage considered to be too much for packing into bags. • Any feeder defects repaired immediately, same day, or as soon as possible by stockman themselves, maintenance team or professional contractor. • Waste feedstuffs not allowed to enter into slurry tank. Duration of action • Achievable same day. Cessation of action • Spillage cleared up and delivered or secured for offsite disposal. • Feeding equipment working properly.
Odour from problems with housing ventilation system	• Inadequate design causing poor dispersal of odour • Inadequate air movement in rearing houses leads to high humidity, wet bedding & odour	• Designed and installed by professional contractors good, forced ventilation with high velocity extraction fans (vents greater than 5.5 metres high and fan efflux velocity greater than 7m/s).with outlets on the roof. Air inlet openings provided above solid plastic Galebreaker curtains on sides of houses. • Optimising discharge of exhaust air from pig houses using a combination of BAT13 techniques to remove and disperse moisture, ammonia and odour quickly including maximised outlet heights – exhausting air above roof level through the ridge, and maximised vertical outlet velocity with uncapped outlet cones. Butterfly valves close when air flow stops to prevent rainwater getting in.	Trigger • Electrical or mechanical faults with fans. • Weather forecast ambient temperature 30^{o}C or high humidity, or pigs start exhibiting uncomfortable feeling hot behaviours e.g., panting. • Met Office definition for UK heat wave is an extended period of hot weather for 3 consecutive days with daily maximum temperatures meeting or exceeding the heat wave temperature threshold of 27^{o}C for Norfolk. Heatwaves will be in June, July, and August. Timeframe for implementation • Immediate/same day.

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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
	• Control of the ventilation system • High ambient temperature & humidity • Suspended dust from bedding, feed, and pigs. • Disease and vice outbreaks	• Computer controlled ventilation continually adjusted to match age, weight, & health requirements of pigs. • Follow manufacturers working principles using temperature curves based on room temperature and age of pigs, and exhaust curves for minimum & maximum exhaust. • All the fans in the house are set to operate at 100% extraction rate (all 10 fans per house) initially once inside temperature reaches 24^{o}C with smaller pigs. When pigs have been onsite 5-6 weeks, all 10 fans will be extracting 100% from 20^{o}C. • Galebreaker curtains manually adjustable to correct size air inlet in accordance with manufacturer's instructions. • Fans can be operated manually to improve air conditions inside but rarely happens. Responsibility for any manual adjustment restricted to farmworkers based on training and experience. • Farmworkers inspecting automatic equipment on which the pigs depend not less than once per day to check no defects including the ventilation system. • Farmworkers monitoring temperature & humidity inside house every day 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. • Preventive maintenance programme for buildings & equipment with farmworkers, maintenance team, and professional contractors in accordance with manufacturer's instructions and keeping records.	• Pigs heat shedding mechanisms become less and less effective, and if the situation isn't controlled, they will die. Contingency action • Faults with ventilation equipment, sensors, controls, fans to be repaired same day or as soon as possible. • Turn on more fans to increase air changes. • Create mixed ventilation inside house using both extraction fans and natural ventilation day & night. • Galebreaker curtains manually opened to half way down when to allow more air to blow across the house over the pigs to keep them comfortable to minimise heat stress. However, potentially more noticeable odour beyond installation boundary owing to odour being released at lower level. • Topping up fresh straw bedding to reduce humidity. • Continue monitoring temperature & humidity inside. • Checking weather forecasts online and on television. • Might consider opening curtains at the lower Met Office heatwave threshold temperature of 27^{o}C. Duration of action • Based on a production cycle of 15 weeks mixed ventilation might be used at the end of 1 cycle each year. However, warm weather and high humidity could last days or weeks. • Heatwaves will become more frequent. According to Agency adapting to climate change risk assessment summer daily maximum temperature may be around 7^{o}C higher compared to average summer temperatures now by 2050, or sooner. Cessation of action

Table 2. Routine actions and contingency actions to minimise odour and odour risks at Feltwell 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
			• Any ventilation faults successfully repaired. • Galebreakers on sides of houses lifted up to correct size air inlet in accordance with manufacturer's instructions for fan extraction ventilation, when daytime outside temperature goes down and pigs properly stop exhibiting uncomfortable feeling hot behaviour.
Odour issues using solid floor (straw-based management system)	• Building design • Insufficient or poor-quality straw • Increased odour from wet bedding • Open windbreakers • Pigs drink more in warm weather • Overcrowding	• Good building design with concrete floors poured over a continuous damp-proof membrane, preventing moisture being drawn up from the ground & insulated ceilings prevent condensation of moisture in the air. • Prior to pigs arriving sufficient new straw bedding provided in laying areas to be comfortable for pigs to lay on and absorb all liquid to keep pigs and surfaces dry and clean (BAT13). • Prefer to use long barley straw in big bales rather than short straw subject to availability and cost. According to EPR6.09 How to comply wheat straw slightly more absorbent but not as soft or palatable, and dustier based on experience at Feltwell Fm. • Store straw undercover in barns keeps it dry and clean to prevent deterioration and waste. Monitoring stocks and usage and keeping records. • Written job detail sheet for workers as part of EMS: • Both dunging & laying areas pushed out daily to manure barn (BAT13) starting after the third week when pigs will have settled-in. • Pushout laying area first, so pigs excrete in dunging area when first moved, not clean laying area.	Trigger • Elevated odour level in house. • Wet bedding • Dirty pigs. Timeframe for implementation • Immediate, same day. Contingency action • Provide a higher amount of straw for laying on after push-out. Greater depth of straw provides pigs more comfort and will absorb all the liquid in the passage and bind better with the dung. • Wet, mouldy, poor-quality straw not to be used, and supplier informed immediately. Good quality straw to be delivered as soon as possible. Duration of action • Achievable in 1-2 days. Cessation of action • All urine being absorbed by straw & no ponding in dunging area & odour returned to normal levels..

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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
		• Open up 4-6 rows maximum at any time, depends on staff availability, to shut pigs in to pushout and check individual pigs, provide any treatment, move pigs to hospital pen, and remove dead pigs, etc. • Gable end windbreakers open to pushout, next part lowered during straw-up & reopening rows to pigs, next full closed as soon as house is finished. • Use a high amount of straw to be comfortable for lying on absorb all liquids and keep pigs and surfaces clean and dry (BAT13). • Manure pushed down to store in small amounts to avoid spillage on the raised areas. • Scraped area to be left clean and free of any manure when all the houses are finished. • Preventive maintenance programme for buildings & equipment with farmworkers, maintenance team, and professional contractors and keeping records. • Stocking density in accordance with the regulations. • Lower stocking density for pigs in RSPCA assured certification scheme.	
Odour issues with wet bedding and drinking water systems	• Design • Operation • Spillages	• Package non-leaking nipple drinkers and troughs. • Written job detail sheet for workers as part of EMS: • Farmworkers check nipples and troughs as part of daily welfare checks, and frequently adjusted to correct height as pigs grow to minimise spillage and wet bedding (BAT13). • Consumption monitored daily with meters in every house and investigate abnormal high usage. Check	Trigger • Obvious leaks, abnormal high water used • Abnormal strong odour from wet bedding Timeframe for implementation • Immediately, same day. Contingency action • Farmworkers check and repair any leakage from drinking system or callout maintenance team or professional contractor.

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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
		for serious leaks (water running, squealing pigs) in walk-through checks start of every day.	• Provide a higher amount of straw for laying on after push-out. Greater depth of straw provides pigs more comfort and will absorb all the liquid in the passage and bind better with the dung. Alternatively add more straw to any wet pens noticed after the daily push-out and straw-up have finished. Duration of action • Achievable same day. Cessation of action • Leak repaired, pushed out and straw replaced to reduce odour.
Odour issues around out loading of pigs to slaughter	• External pig races becoming dirty during use.	• Farmworkers check unloading & loading areas are clean before use so pigs not walking through wet areas or manure. • Washout after use.	
Odour issues on concrete yard	• Minimised surface area which can release odour • Urine ponding	• Concrete yard in between pig houses & manure barn designed to ensure effective separation of slurry from uncontaminated rainwater as shown on the site drainage plan. • Sloping concrete to prevent urine & slurry ponding. • Kerbs & sleeping policeman channel slurry run-off overland into reception pit & pumped into overground slurry storage tank and lagoon. • Concrete yard will be kept in good state of repair. • Preventive maintenance programme for buildings & equipment with farmworkers, maintenance team, and professional contractors and keeping records.	Trigger • Cracking, potholes resulting in urine ponding, odour. Timeframe for implementation • As soon as possible. Contingency action • Call out maintenance team or a builder Duration of action • Achievable in short term, days, weeks. Cessation of action Repaired, no urine ponding.

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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
Solid manure storage	• Elevated odour from storage & loading into trailers • Slurry runoff.	• Repurposed an existing building onsite to create an enclosed manure barn to minimise the airflow and velocity over manure surface in order to reduce emissions offsite (BT13). • Manager monitoring barn, available capacity & odour. • Export solid manure offsite for storing in field heaps and spreading under control of a separate farming business for use as organic nitrogen fertiliser. • 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 typically takes less than an hour each load. • Written agreement in place manure will be spread in accordance with a manure management plan for receiving land in a NVZ and Defra code of good agricultural practice (COGAP) for manure to be incorporated as soon as possible and within 12 hours at the latest to minimise nitrogen losses [and odour]. • No spreading within the installation boundary.	Trigger • Barn overfilled and manure stored outside. • Abnormal strong/ very strong odour offsite. Timeframe for implementation • Immediate, same day, next day. Contingency action • Callout farmer or third party to arrange collections. Duration of action • Achievable in 1-2 days. Cessation of action • No manure stored outside & made capacity inside the barn for storing all the manure inside until next scheduled collection.
Slurry storage (A mixture of mainly excreta, bedding, rainwater, & washings)	• Elevated odour from slurry during movements	• Drainage to channel slurry run-off the concrete yard and from inside the covered manure barn using a sloping yard, sleeping-policeman into a reception pit and pump into a new above ground slurry storage tank, covered to prevent ammonia and odour emissions. Next, pumped via a solid underground pipe into existing earth banked slurry lagoon onsite. • Feltwell Fm located in NVZ, and lagoon has capacity to store all the slurry produced including rainfall and	Trigger • Electric pump breakdown. • Above ground storage tank filled to capacity. • Slurry backed up on yard, inside manure barn or in the above ground storage tank. Timeframe for implementation • Immediate, same day Contingency action

Table 2. Routine actions and contingency actions to minimise odour and odour risks at Feltwell 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
		washings during the storage period from 1st October to 1st April inclusive (6 months) for pigs. • Manager monitoring lagoon and available capacity & odour. Intermittently spreading on land before start of storage period to ensure sufficient capacity. • Export slurry offsite to another farming business for use as organic nitrogen fertiliser and soil conditioner. • 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 tankers in as short a time as possible & less than an hour for each load. • Written agreement in place with a separate farming business will be spread in accordance with a manure management plan for receiving land in a NVZ and Defra code of good agricultural practice (COGAP) for manure to be incorporated as soon as possible and within 12 hours at the latest to minimise nitrogen losses [and odour]. • No spreading within the installation boundary.	• Stop any washing out. • Callout maintenance or contractor to repair the pump. • After pump is fixed, scrape down any slurry outside Duration of action • Achievable in 1-2 days. Cessation of action • Pump repaired • Yard scraped clean.
Odour issues with washout	• Wet bedding and surfaces • Using odorous products to disinfect houses	• Washout after out loading pigs to slaughter occurs 3.25 times every year. Takes 24-man hours per house so can take 1-3 days per house but normally completed in less than a day with two workers and pressure washers, but depends availability Expect washing out on not less than 46 days each year. • Washout houses as soon as possible, normally within one day of out loading, and not normally more than 3 days for example out loading on a Friday and washout on Monday. Washout in as short a time as possible.	Trigger • Washout delayed after destocking owing to unforeseen circumstances. • Problems in pig processing can result in housing pigs longer and no washout owing to holding oversize pigs and small pigs waiting to be delivered. Timeframe for implementation • Immediate, same day. Contingency action

Table 2. Routine actions and contingency actions to minimise odour and odour risks at Feltwell 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
		• Both dunging and laying areas pushed out first. • Use pressure washers to reduce water use and slurry. • pre-rinse first to reduce time, dust, and odour. • Washout build-up of dust from straw, feedstuffs, and pigs from around vents, fans, ceilings, and feeding and drinking equipment. • Defra approved disinfectants are slightly odorous. Used in accordance with manufacturer's instructions by trained farmworkers • Keep pig houses including gable end windbreakers closed up and locked after washout to keep dry and minimise release of any residual odour.	• Improve ventilation to reduce temperature and humidity for example using more extraction fans to increase frequency of air changes. • 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. • Keep pig house closed up & fans switched off after pushing out to minimise odour release. Duration of action • For as long as required, until washout can be started. • Could be many months before offsite processing issues are resolved. Cessation of action • Washout started.
Odour issues with pig carcasses	• Inadequate storage for carcasses onsite • Carcasses stored for prolonged time	• Dead pigs removed from pens daily. • Stored in non-leaking containers & lids kept locked. • Containers stored in a location furthest away from receptors. • Fortnightly collections normally adequate, small quantities first few weeks and increasingly more in latter weeks as pigs grow. • Removed by an approved transporter under the National Fallen Stock Scheme • Rent containers from transporter. Exchange clean & disinfected containers so no cleaning onsite. • Farmworkers monitoring storage area daily including for flies.	Trigger • Containers left uncovered, poor fitting lids or leaking. • Extraordinary offensive odour from containers. • Higher mortality in a heat wave or disease. • Attracting lots of flies. Timeframe for implementation • Immediate, same day. Contingency action • Cover containers, cover poorly fitting lids with any available plastic bags, film to minimise odour, flies. • Contact transporter for more frequent exchange of containers starting same day, next day, or arrange for a refrigerated trailer. • Clean up and disinfect any outside leaks. • Keep checking fly traps.

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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
			Duration of action • Achievable in 1 or 2 days. • More frequent collections for as long as required. Cessation of action Carcases removed offsite and odour minimised.
Bio-security issues	• Disease and increased mortality, although significant disease outbreaks in commercial pigs are rare	• Health plan with professional veterinary input. • Farmworkers well managed, supervised and appropriately trained and qualified including holiday cover, part-time and temporary staff. • Farmworkers inspect pigs in walk-through checks start of every day and individual pigs when shutting in to pushout manure and bedding.	Trigger • Extraordinary wet bedding, elevated odour level. • Unexpected increase in pig morbidity or mortality. Timeframe for implementation • Immediate, same day. Contingency action • Investigate causes of any morbidity or mortality with management. • Treatment with medication maybe required. • Obtain veterinary assistance as quickly as required. Duration of action • Achievable same day. • Continue monitoring, investigation, treatment, and veterinary assistance for as long as required. Cessation of action • Complied with veterinary instructions and treatments with levels of morbidity, mortality, and odour back down to normal.
Monitoring	• Monitoring odour levels daily at source can help identify any increase in level	• Farm Manager responsible for site tour every day including perimeter, sniff-testing for any abnormal elevated odour levels with potential to cause annoyance offsite and monitoring relevant events in the local area.	Trigger • Extraordinary or particularly offensive odour offsite. Timeframe for implementation • Immediate, same day. Contingency 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
	with time so remedial action can be taken.	• Farmworkers accustomed to odour through exposure may not be able to detect or judge intensity of odour offsite. People who have not recently been working on the farm might be more helpful. Anyone with a cold, sinusitis, or a sore throat will underestimate the 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. • Health, Safety, Environmental & Welfare Manager at Wayland Farms Ltd monitoring odour levels sniff testing every 3 months, more frequently after a complaint until odour levels back to normal. • Training farmworkers on complying with conditions in the environmental permit including the OMP.	• 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 • Odour reduced, back to normal onsite and offsite. • 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. • Slow response • Elevated level of annoyance.	• Farm Manager, Health, Safety, Environmental & Welfare Manager responsible for investigating any complaint reported by Agency, local authority, or the public. • Investigate if alleged odour can be substantiated. Even if no longer apparent investigation must still be carried out and recorded same day. Establish:- • Time event occurred, duration, description of odour. • Activities taking place onsite at time of complaint. • Any odorous activities taking place offsite in vicinity. • Check actions, contingency actions being adhered to and any change to standard operating procedure. • Record details of investigation and action taken on odour complaint report. A copy must be sent to the	Trigger • Complaint reported on Saturday or Sunday by email from Agency, local authority, not considered likely from anywhere else. Timeframe for implementation • As soon as possible on opening email. Contingency action • Investigate if alleged odour can be substantiated. Even if no longer apparent investigation must still be carried out and recorded same day, next day. • Continue odour monitoring. Duration of action • Investigation likely achievable same day, next day. 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
		Health, Safety, Environmental & Welfare Manager immediately and must be retained onsite & available for future reference, or inspection with Agency. • Notify 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.	• Notify 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	• New odour issues, actions & contingency actions.	• Health, Safety, Environmental & Welfare Manager responsible for review annually. Updated sooner where a substantiated complaint results in making changes to related issues change in operating procedures, or any routine and contingency actions.	

Change history	Date	Name
Last updated	02 August 2024	[redacted]
Last review	03 August 2023	
Next review	02 August 2024	-

02/08/24 Corrected grid refence for an existing receptor and identified 2no. additional sensitive receptors for bungalows in a terrace.
31/05/24 Added agricultural premises (a poultry farm) and a residential dwelling in the same place and planning permission for another within 400m of Airfield Fm. Added a reference to the dwelling houses at Feltwell Fm are not owned by the operator or occupied by workers at Airfield, Feltwell or Methwold (Breckland) Fm. Corrected the post codes for all the dwelling houses at Feltwell Fm.
03/08/23 Reviewed and minor update on actions and contingency actions and assessment against BAT in conjunction with the OMP review same time for Cherry Tree Fm.
26/05/23 Updated OMP in orthodox template, added odour related issues, action to minimise odour and odour risks and contingency action to get abnormal odour back to normal levels.

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 explanation Yes/No Date By whom		
Form completed by	Date:	Signed:

Environment Agency (2011); Additional guidance for H4 Odour Management: How to comply with your environmental permit.