Project Name	Broxfield Farm
EPR	EPR/KP3326MQ/P001
Type (New Permit/Variation)	New

Introduction
This bespoke Odour Management Plan (OMP) has been prepared to support the overall Environmental Management System in place. The overriding principle of this OMP is to ensure the day-to-day activities are carried out in accordance with this document to help minimise the overall environmental impact.

This OMP has been designed to employ in full the appropriate measures in the NFU Pig Industry Good Practice Checklist (Version 2, 2013) and BAT measures in line with the BAT conclusions document (Odour emissions BAT 12).

There is one sensitive receptor within 400m distance of the installation boundary owned and rented out to third party by the operators of the farm.

There have been no previous issues relating to odour, dust, noise or flies in relation to the farm.

Setting

The site is located within a rural setting in Northumberland surrounded by arable farm land. The land is undulating and on elevated ground in relation to the nearby coast.

Figure 1 shows the location of the installation and of the receptors within 400m which have been considered in this noise management plan.

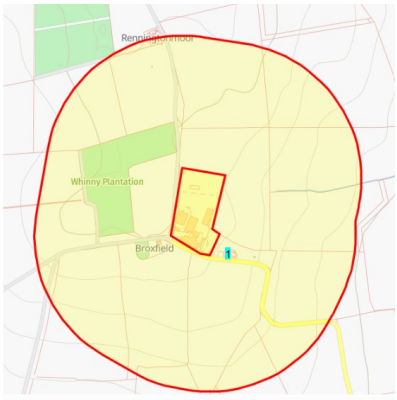


Table 1: Sensitive Rectors and distance of Sensitive Receptors from Installation Boundary to nearest point of domestic curtilage

Reference	Description	Distance (m) to nearest point of domestic curtilage	Orientation from installation	National Grid Reference
1	Broxfield Farm Cottages (including one private residence)	32	E	NU 20236 16660
2	Residential properties Rennington Moor	389	N	NU 20007 17306

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 effective method of dealing with any odour complaints quickly and efficiently.

Potential odour sources

In accordance with Section 3 of H4 guidance, a risk assessment of odour pollution was performed.
As a result, the following sources have been identified as contributing to a potential *medium risk* odour source:

Odour emissions from feed selection
Odour emissions from manure storage
Odour emissions from yard areas
Odour emissions from housing
Odour emissions from drinking water systems
Odour emissions from natural ventilation
Odour emissions from cleanout
Odour emissions from carcass storage and disposal
Odour emissions from feed storage (delivered in; no mill or mix on site)
Odour emissions from manure and dirty water spreading
Odour emissions from dust build up

The pathway for all of the above sources is via the atmosphere. The wind direction will significantly influence how receptors are affected. We have not received any complaints from neighbours relating to odour from the farm.

Odour related issues	Actions taken to minimise odour	Completion date
Effects of diet on odour and ammonia emissions (feed selection)	Feed composition is closely matched to pigs' requirements, especially protein Diets are ad-lib dry with minimal falls into troughs to reduce dust emissions and sufficient oil in the feed to minimise dust Diets are continually reviewed with a professional nutritionist to ensure good performance Records of crude protein levels and diet formulation are kept in the site office. Feed is only supplied by a UFAS accredited feed mill, so that only approved raw materials are utilised in production.	On-going
Manure storage	Manure is scraped from passages frequently to ensure that the pens remain dry and clean. Increased odour emissions are expected when moving manure. We will avoid removing manure wherever possible when the wind direction is blowing towards nearest receptors. Increased odour emissions are expected when out-loading the manure store. Timing is planned to avoid weekends and bank holidays wherever cropping, weather and soil conditions allow this flexibility. And wind direction is monitored and taken into consideration also. Removal is as efficient as possible to ensure increased odour production is as short-lived as it can be.	On-going
Dirty water storage	Dirty water soaked up in straw or to slurry tanker and removed from site immediately	On-going

Cleanliness of yard areas	Yard surfaces are properly maintained. Areas around the houses are kept clean at all times.Yard areas and open surfaces are designed to ensure effective separation of uncontaminated surface water and dirty water through impermeable surfacing, where appropriate, and the curbing and gradients thereof. Clean yard areas, at significantly low risk of contamination are hard surfacedand drain to a common point then into a ditch. Potentially contaminated yard areas (e.g. around feed bins and entrances to buildings) are impermeable and designed to protect clean water drainage through ability to shut-off surface drainage points in case of contamination (e.g. until feed/muck spill was cleaned up completely) and/or diverter to underslat storage at times when area is contaminated or at risk of contamination.All feed systems are fully enclosed and automated, and feed blown in through sealed pipe, thus reducing risk of spillage when filling or emptying.Foot baths are covered (preventing rainwater ingress and overflow) and are located on concrete areas which drain ultimately to the dirty water store. Roofs are kept clear of dust build-up, reducing risk of contamination of roof water to clean water drainage.	On-going as part of the inspection and maintenance programme
All housing and management	All buildings are all in line with BAT requirements. All pens and stock are checked for cleanliness as part of daily welfare checksAll pens and buildings are cleaned out in accordance with written cleaning planPotentially odorous spillages (feed ingredients, manure, etc.) are cleaned up promptlyStocking density maintained at or below levels set out in Defra Welfare Regulations Ventilation corresponds to animals' requirements to optimise the housed environment for the pigs and air quality conditions. Air quality is checked as part of minimum twice daily checks on stock.Build-up of waste feed in front of feeders is prevented and waste feed is removed from pensFeeders and drinkers have been designed to prevent wastage and leaksPen and wall surfaces are constructed from non-porous smooth surfacesTroughs and feeders are constructed and arranged to minimise feed waste and prevent pigs from climbing in or wallowing.	On-going
Emissions from housing (straw based)	Pens well bedded with clean, dry bedding to ensure clean animals and to bind ammonia All scraped areas within buildings are maintained and managed to prevent ponding Bedding material is stored under cover to ensure it is kept clean and dry to prevent wastage and deterioration. Bedding is applied internally with bales being place into the sheds and then opened	On-going
Cleaning out	Cleaning out occurs as soon as possible after destock to allow maximum time for the building to dry before restocking. FYM is removed efficiently to minimise the period of time where odour is likely to be elevated, with due consideration given to neighbours and wind direction wherever possible. Only Defra approved disinfectants and detergents are used on site and are applied by trained personnel, in accordance with the manufacturer's guidance.	On-going
Animal carcases	Pig carcasses are placed immediately deadbins and removed by licenced fellmonger	On-going
Feed delivery and storage	Feeds are stored in silos. No liquid feed storage. Feed is distributed to feed bins via a blower wagon (enclosed system), minimisi The feed storage is checked by the site manager in accordance with the site's r All spillages are cleaned up and disposed of promptly	On-going
Spreading dirty water and manure	Manure and dirty water are exported directly	On-going
Ventilation techniques	Mix of natural and mechanical high speed fan ventilation	On-going
Dust (especially as an odour vector)	All dry feed ingredients are stored in covered bins and fed via contained delivery system to feeders Fed diet containing sufficient oil to minimise dust. Feed system enclosed through to troughs in pens. Free fall of food in to the internal feeders in the pens is at a small drop height to reduce the plume effect of dust. Open surface of troughs/feeders kept to a minimum consistent with purpose in order to minimise exposed feed surface. Waste feed removed and not allowed to accumulate. Bedding types and quality chosen to minimise dust creation. Straw bales placed into the sheds and then opened to minimise dust production.	On-going
Dealing with odour complaints	In this case, ensure that the person monitoring odours is not associated with the day-to-day running of the farm and is therefore not immune to the odours.] "When investigating a complaint you should work through the following questions: 1) Is the process under control? (Have you received exceptionally odorous wastes? Has a normally aerobic composting activity become anaerobic? Have putrescible wastes been left standing for too long before processing?) 2) Have odour containment measures failed? (Has a door been left open? Have odorous materials been stored outside a containment area? Have adverse conditions, such as weather, overwhelmed containment structures?) 3) Have treatment/mitigation measures failed? (e.g, is there a ventilation failure or an issue with pig health) 4) Have dispersion methods failed? (Have stable atmospheric conditions failed to disperse an odorous plume? Have your neighbours been exposed to emissions because of unfavourable night-time cold drainage flow conditions?) 5) If the odour is associated with hazards, such as treatment of hazardous materials, is there any possibility of health risk to the local community?" We will keep auditable records of any investigations we carry out. These records will be invaluable to us in analysing incidents and stopping them from happening again, as well as being a requirement of this OMP and to meet permit conditions.	On-going
Odour monitoring	Monitoring is an integral part of an OMP and is in line with the current NFU Pig Industry Good Practice Checklist. BAT conclusion 26 of the IRRP BAT Conclusions document states that such monitoring is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated. Although the site does not have a history of odour complaints, BAT conclusion 26 is applicable as there are sensitive receptors within 400 metres of the installation boundary. We will conduct regular monitoring and will undertake monitoring at higher frequencies in the event of odours arising and until such time as they are resolved. Where there is potential for abnormal elevated odour emission, control measures will be put in place to mitigate the risk. If an odour problem arises, monitoring will be carried out to establish what needs to be done. If a complaint arises, it may be helpful to ask a neighbour/community to keep odour diaries; to monitor a larger area and avoid the potential issue of "nose blindness" in someone who lives and works on the site and may be less sensitive to the odours detectible by others. If we have put a solution in place, we will monitor to confirm that it has resolved the problem.	
General comments	Neighbours will be informed (where necessary) prior to activities which may cause odour Odour levels will be monitored on site by all staff. The source of abnormal odours will be identified and appropriate action will be taken to reduce odour levels back to normal levels The effectiveness of odour control measures will be reviewed at least once a year or sooner in the event of any complaint or relevant changes to operations. The permit holders operate the site so are able and responsible for checking odour emissions daily; checking for any abnormal levels or potential increased odour production. Site tours will be taken daily to ensure odour and risks of odour are assessed. Where there is potential for abnormal elevated our emissions, control measures will be put in place to mitigate risk.	

Contingency

Abnormal Scenario	Remedial Action	Time Limit
Damage to building	Damage would be repaired asap and, depending on nature of damage, area made safe and covered/contained in the meantime to prevent increased odour emissions and/or destocked in the immediate area if necessary.	Depends on severity of damage and whether environment or animals are at risk. Immediate action required to make safe. Mitigation measures will continue until the damage is repaired and it is assessed as safe to revert to normal practice. This will be recorded in the inspection and maintenance records.

Dirty water store damage or overflow	Contingency margin in store capacity so overflow risk low. Tanks monitored routinely to check levels and particularly ahead of washing out and through periods of heavy rain. Forecasts are monitored to enable preparations for high rainfall. Tank should be repaired immediately and any contaminated water held or collected in the meantime; or applied to land if conditions and regulations permit.	If any risk of pollution, immediate action must be taken to remove risk. Mitigation measures will continue until the damage is repaired/situation remedied and it is assessed as safe to revert to normal practice. This will be recorded in the inspection and maintenance records and/or incident records.
Pipework damage	Immediately stop use of the pipe and clear up (e.g spilt feed) to prevent contamination of clean water drainage. Replace/repair pipe. Immediately install additional containment measures in the meantime if needed (e.g. using straw/sand or bucket brush)	Immediately stop potential for leak. Replace/repair pipe - Time frame depends on dependency on pipe. Mitigation measures will continue until the damage is repaired and it is assessed as safe to revert to normal practice. This will be recorded in the inspection and maintenance records and/or incident records.
Livestock illness	Fieldsman and veterinary advice and treatment plan would be referred to and additional measures taken where necessary; i.e. more frequent removal of FYM from pens where e.g. gastrointestinal illness or behaviour problems is leading to increased mucking of the pens. Where pigs need removing from their peers, hospital pens are included within each building – but these are managed exactly the same as the other pens, with dirty areas removed frequently, preventing elevated odour levels. A decision making protocol is also in place regarding acceptable treatment windows and when to make the decision to euthanise. This reduces the risk of animals which aren't recovering in an acceptable timeframe for high welfare, or aren't likely to be ultimately fit for transport, being kept on in hospital pens indefinitely. In the case of a notifiable disease outbreak, the site is designed for accommodating pigs to their full adult size so the feed, water and space requirements are correct for an extended housing period if required. The nature of the muck management system means that pens can be cleaned regularly throughout the batch. We would not expect an increased daily odour output for these reasons. In the instance that it is not possible to remove FYM from the site at all, advice would be sought regarding location for a temporary field heap and a tanker would be deployed to increase the dirty water holding capacity on the site. Advice from the EA and APHA would be sought.	Immediate referral to veterinary/fieldsman advice for prompt treatment and management plans. Assess the risk for increased odour production, and adjust bedding and mucking out schedules accordingly. Mitigation measures will continue until the situation is under control and it is assessed as safe to revert to normal practice. This will be recorded in the animal management records and/or incident records as applicable.
Fire	Control the fire as quickly as possible. If the fire is not immediately possible to extinguish and is spreading, contact fire brigade immediately and remove at-risk animals if safely possible, also remove animals from nearby buildings. Unless there is sufficient, and safe, accommodation available on site at the correct stocking densities - arrange for removal of these animals from the site within 8 hours maximum. There is contingency margin for housing available within the local supply chain, run by the relevant pig group. All firewater will be draining to the dirty water tank, so this will need frequent emptying and appropriate disposal/removal to other storage tanks/tankers. Contact Environment Agency for advice on disposal. Follow fire brigade advice regarding creation of fire breaks/protection and removal of flammable materials (e.g. straw bales), Once the fire is under control and it is safe to do so, remove all burnt material within 24 hours and thoroughly clean and decontaminate the area.	Ring fire brigade immediately Refer to Emergency Action Plan – Fire section Ring haulier/pig group (see Emergency Contacts) to arrange for movement of stock, if necessary, within 8 hours maximum. Mitigation measures will continue until the damage is repaired/situation remedied and it is assessed as safe to revert to normal practice. This will be recorded in the inspection and maintenance records and/or incident records.
Diet problems	In the case of a diet issue (e.g. where feed quality was below standard or feed type was incorrect), we have the capacity to remove and replace feed in the bins. Diets are continually reviewed by a professional nutritionist and feedback on feed quality and requirements given via the pig group and veterinary practice. N.B. Diets are only sourced from UFAS accredited mills.	Contact pig group/owner immediately (and vet if applicable). Mitigation measures will continue until the situation is remedied. This will be recorded in the inspection and maintenance records and/or incident records.
Failure of containment of food	In the case that a feed pipe leaks within the pig buildings, the system should be stopped and leaked feed cleared up promptly. No potential for contamination of clean water system. In the case that the feed bin leaks or the blow pipe fails and feed is spilled on to an outdoor area, the surface water drainage point should be immediately protected to prevent contamination of clean water systems. All spillages should be cleaned up immediately. For uncontaminated feed fit for animal consumption, it can be transported by teleporter bucket to the feeders in pens or blown into another silo by the feed company vehicle (dependent on biosecurity risk). For any major spillage greater than 500kg that is unfit for animal consumption the spillage will be cleared up in to skips and removed from site for disposal via the appointed waste contractor within 24 hours of the incident. For any spillage less than 500kg, feed would be cleared up using bags and placed in the onsite general waste container for disposal.	Stop the potential for leaks immediately. Protect clean water inlet immediately by shutting it off or containing the spillage area through use of e.g. straw/sandbags. Protect from rainfall and pests if it is not possible to remove the spilled feed, or feed from a damaged bin, within a few hours. The affected area/feedbin should be free of feed within 24 hours. Mitigation measures will continue until the damage is repaired/situation remedied and it is assessed as safe to revert to normal practice. This will be recorded in the inspection and maintenance records and/or incident records.
Carcass disposal route failure	In the case of increased mortality or/and culling of large numbers, the deadstock will be disposed of via licensed fellmonger. In the case of normal contracted deadstock collector being unable to collect the carcases within the required timeframe, there are multiple other collectors used within the wider supply chain which can be called on.	Immediate incineratiom with deadstock collectors being contacted in case of insufficient incinerato capacityr. Mitigation measures will continue until the situation is concluded/remedied and it is assessed as safe to revert to normal practice. This will be recorded in the animal management records and/or incident records as appropriate.
Temporary storage and disposal of any wastes arising from incidents	Used sand, straw bales, and other waste materials arising from containing pollutants should be stored on an impermeable surface protected from drainage routes.	Where applicable, the waste contractor (see emergency contacts) should be contacted within 24 hours of an incident and arrangements made for safe disposal. Mitigation measures will continue until the situation is remedied. This will be recorded in the incident records.

Summary

Odours are assessed daily by operators or their representatives. Air quality within the buildings is also assessed (sensory assessment). Weather monitoring/forecasting, also help to assess the risks and take additional actions to mitigate them if necessary.

We have always worked hard to minimise our impact on our closest receptors. We continually assess management techniques to improve our control of emissions.

In accordance with guidance, we will review the effectiveness of our control measures **at least once a year** and in the light of any building and management changes and on the outcome of investigations into the causes of any future substantiated complaints, if any occur.

Any complaints will be recorded and investigated using the guidance from EPR 6.09 3.1 and 3.2 odour and emissions management on intensive livestock installations.

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Odour Complaints Form		
Name of Farm		
Time and Date of Complaint	Name and Address of complainant	
How complaint was received, e.g. telephone call, visit, etc.?	**Email address of complainant**	
Who first received the complaint?	**Telephone number of complainant**	
Who was the complaint reported to for further action?		
Type of complaint (give all relevant details – use space overleaf if necessary)		
Describe the activity which was happening at the time of the complaint (include names of any relevant staff)		
Any other relevant information		
Are there any other complaints relating to the installation or that location? (If yes, give details)		
Actions taken and by who		
Form completed by	**Signed**	**Date**
