

Odour Management Plan

Farm name: Raven Hill Farm

Operator: S J Savile and Sons

Permit number: EPR/PP3734YY/V001

Date: July 2020

Prepared by: L Bentley

Introduction

This bespoke Odour Management Plan (OMP) has been prepared to support the overall Environmental Management System in place at Raven Hill Farm. 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. There are three residential sensitive receptors which are all over 100m but within 400m of the installation boundary to the South of the site. There is no history of complaints. The nearest receptor is the farmhouse for “Raven Hill Farm” lived in by Pat Savile. The second receptor is The Stables – Raven Hill Cottage next to the farmhouse, which is lived in by Neil and Clare Savile. Finally, there is “Pasteve” on Sheep Rake Lane (currently under refurbishment) which will be lived in by John and Lucy Savile in the longer term.

All properties are owned and managed by S J Savile and Sons.

Setting

The installation is located at National Grid Reference TA 03790 66806. Please refer to Appendix 4.

Figure 1 shows the location of the farm and of the receptors (with grid references) which have been considered in this odour management plan.

Figure 1: Buffer zone and sensitive receptors

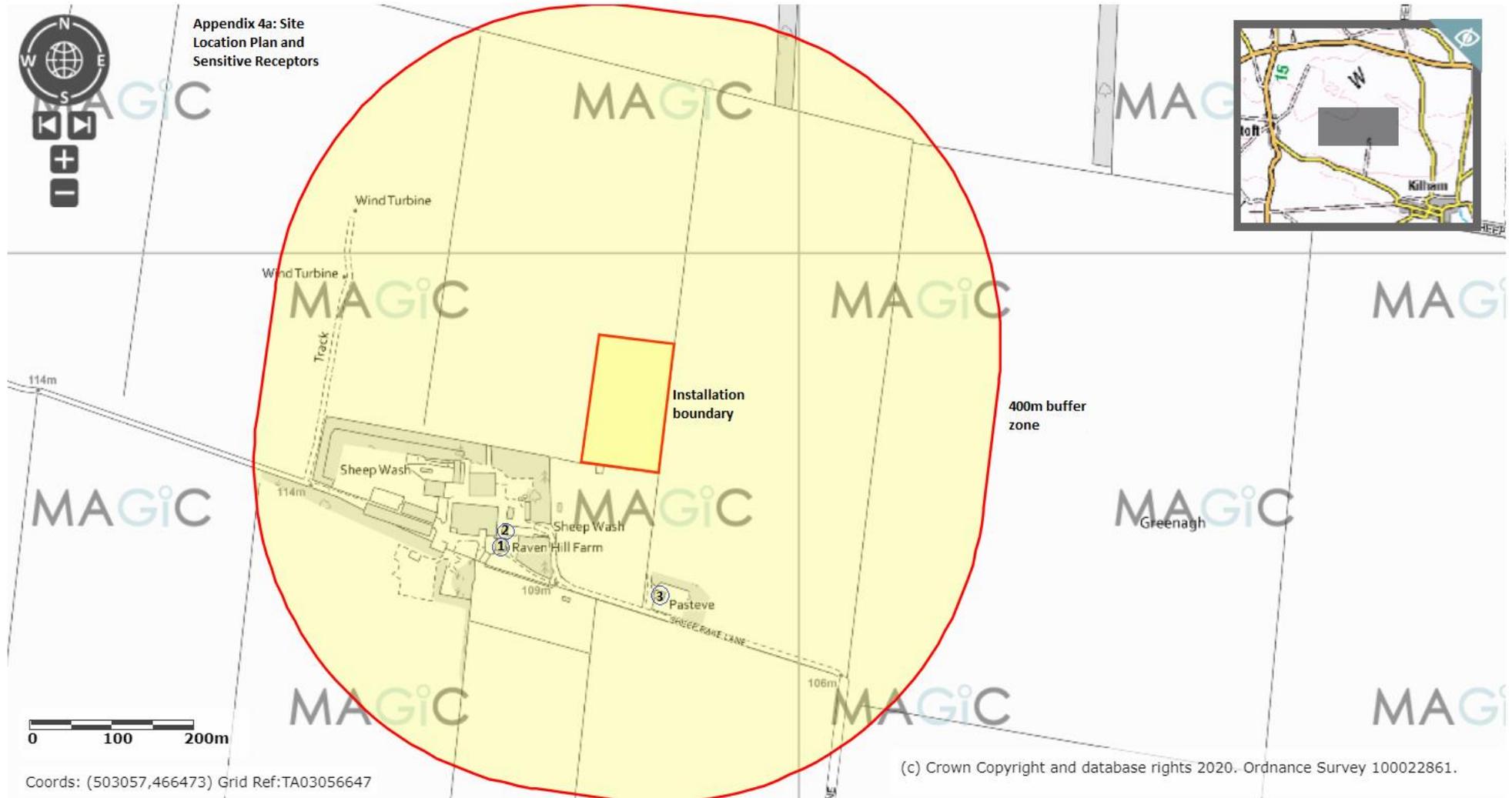


Table 1: Sensitive Receptor Locations

Grid Reference	X (Eastings)	Y (Northings)	Latitude	Longitude	Description (Click to Edit)	Address	Postcode
TA 03634 66647	503634	466647	54.085312	-0.4172264	1 Raven Hill Farm	Sheep rake Lane, Raven Hill Farm, Kilham, East Riding of Yc	YO25 4EG
TA 03640 66666	503640	466666	54.085482	-0.4171338	2 Raven Hill Cottage	Sheep rake Lane, Raven Hill Farm, Kilham, East Riding of Yc	YO25 4EG
TA 03829 66586	503829	466586	54.084731	-0.4142768	3 Pasteve	Sheep rake Lane, Raven Hill Farm, Kilham, East Riding of Yc	YO25 4EG
TA 03795 66842	503795	466842	54.087031	-0.4147145	Pig unit	Sheep rake Lane, Raven Hill Farm, Kilham, East Riding of Yc	YO25 4EG

Table 2: Distance of Sensitive Receptors from Installation Boundary to nearest point of domestic curtilage

Reference	Description	Residents as of December 2020	Distance (m)
1	Raven Hill Farm (farmhouse)	Operator	130m
2	Raven Hill Cottage / The Stables	Operator and non-operator	115m
3	Pasteve	No residents - Under refurbishment	145m

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 (Appendix 5).

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 slurry storage (under-slats only) and removal
- Odour emissions from yard areas
- Odour emissions from housing
- Odour emissions from drinking water systems
- Odour emissions from ventilation
- Odour emissions from cleanout
- Odour emissions from carcase storage and disposal
- Odour emissions from feed storage
- Odour emissions from slurry spreading
- Odour emissions from dust build up

Pathways and receptors

The pathway for all of the above sources is via the atmosphere. With the most sensitive receptors being inhabitants of nearby residential dwellings the wind direction will significantly influence how receptors are affected. We have not received any complaints from neighbours relating to odour from the farm. The topography of the site and significant tree planting on all side mitigates the risk of bioaerosols reaching the receptors.

Odour related issues	Actions taken to minimise odour	Completion date
Effects of diet on odour and ammonia emissions (feed selection)	<ul style="list-style-type: none"> • Feed composition is closely matched to pigs' requirements, especially protein • Diets are ad-lib dry meal feed, via sealed systems, reducing potential for dust release to the atmosphere • 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. 	On-going
Manure storage	<ul style="list-style-type: none"> • No manure production or storage. 	
Slurry/Dirty water storage	<ul style="list-style-type: none"> • All slurry is removed from under-slat pits to be applied either directly to land via an umbilical system, or to be exported to a third party site. • No separate dirty water store • Unnecessary running of vacuum pumps avoided. • Slurry piped in enclosed systems from underground pits. Agitation of slurry minimised. • Increased odour emissions to be expected when store out-loaded, so observe wind direction if cropping/soil constraints allow. Sealed system reduces bio-aerosol creation. • Slurry removed from buildings as frequently as possible to suitable store with a void always maintained beneath the slats 	On-going
Cleanliness of yard areas	<ul style="list-style-type: none"> • Yard surfaces are properly maintained • Loading ramp area kept clean and drains to slurry tank. • The drainage system works effectively to prevent ponding of water, which may release strong odours. This is achieved by gradient and type of yard surface, ensuring effective drainage. Inspection and maintenance in the long term will ensure that this remains the case. Slurry is removed through a sealed system, preventing contamination of clean water drainage systems. 	On-going as part of the inspection and maintenance programme

All housing and management	<ul style="list-style-type: none"> • New build is all in line with BAT requirements, as will any future refurbishments be • All pens and stock are checked for cleanliness as part of daily welfare checks • All pens and buildings are cleaned out in accordance with written cleaning plan • Potentially odorous spillages (e.g. feed ingredients) are cleaned up promptly • Stocking 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. • Buildings are ventilated by high speed roof fans. There are 64 fans (four per room) running at 12.5m/sec. These all have chimneys to bring the emission points to >6.5m above ground level. This optimises the ventilation and dispersion (and therefore dilution) of emissions/odours. • Build-up of waste feed in front of feeders is prevented and waste feed is removed from pens • Feeders and drinkers have been designed to prevent wastage and leaks • Pen and wall surfaces are constructed from non-porous smooth surfaces • Troughs and feeders are constructed and arranged to minimise feed waste and prevent pigs from climbing in or wallowing. • Slats maintained in good condition and kept clean of manure build up. • Underslat storage emptied frequently – i.e. at <10week intervals or before reaching the 800mm threshold 	On-going
Cleaning out	<ul style="list-style-type: none"> • Cleaning out occurs as soon as possible after destock to allow maximum time for the building to dry before restocking. • All wash water drains to under-slat storage pits 	On-going
Animal carcasses	<ul style="list-style-type: none"> • Pig carcasses are kept in covered storage and disposed of promptly by licenced deadstock collector once per week or sooner if required • Storage container is sealed preventing leaks • Deadstock collector delivers a washed and disinfected carcass bin when they collect a full one. • No incinerator. 	On-going
Feed delivery and storage	<ul style="list-style-type: none"> • Dry feeds are stored in silos. No liquid feed storage. • Dry meal feed is distributed via enclosed feed system through to troughs in pens. • Hoppers are filled with a chain and disc system which runs every 15 minutes, so the feed never falls any great distance as it is topping up little and often 	On-going

	<ul style="list-style-type: none"> • The feed storage is checked by the site manager in accordance with the site's maintenance schedule. Any leaks are repaired quickly and any spillage cleaned up • All spillages are cleaned up and disposed of promptly 	
Spreading slurry	<ul style="list-style-type: none"> • Applied to land in the locality owned and managed by the operator • Spreading is co-ordinated with local weather forecasts and follows NVZ regulations and Defra Code of Good Agricultural Practice. • Slurry is applied by dribble bar, trailing shoe or injection to reduce creation of bioaerosols. • No production of manure or separate storage of dirty water. 	On-going
Dust (especially as an odour vector)	<ul style="list-style-type: none"> • All dry feed ingredients are stored in covered bins and fed via contained delivery system to feeders. • No bedding used. 	On-going
Dealing with odour complaints	<ul style="list-style-type: none"> • Any odour complaints will be reported to S J Savile & Sons who will log and investigate causes of all odour complaints; identifying the source of the odour issue and monitoring odour levels at the site boundary as part of the investigation • The complaint details and subsequent investigation will be recorded on the site complaint form and a copy will be kept in the site office. • If two or more odour complaints linked to the installation have occurred during any given pig cycle and are unresolved at the end of that cycle the Operator will submit to the Environment Agency an action plan for additional measures to rectify the problems and reduce risk of odour pollution. This plan will be submitted for approval in writing to the Environment Agency. Pig placement for the next cycle will not commence until this action plan is agreed by the Environment Agency. 	On-going
General comments	<ul style="list-style-type: none"> • 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 operators' own households are the nearest sensitive receptors so the permit operators are able and responsible for checking odour emissions daily; checking for any abnormal levels or potential for increased odour production. Site tours will be undertaken daily by the operators or their representative to ensure odour and risks of odour are assessed. Where there is potential for abnormal elevated odour emission, control measures will be put in place to mitigate the risk. 	

	<ul style="list-style-type: none">• The road in to the farm passes the closest receptors enabling staff to also notice if there is an elevated odour emission at that point. Staff know to report promptly any such occasions.	
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Contingency Plan

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.
Slurry store damage or overflow	Significant contingency margin in store so overflow risk low. If risk of leak/overflow identified and a) can't be made safe immediately or b) slurry can't be applied to land due to time of year, weather, ground conditions or other factors; then the slurry will be removed by tanker and exported to nearest alternative stores/lagoons. These are identified in the Emergency Plan.	If any risk of pollution, immediate action must be taken to remove risk.
Pipework damage	Stop or prevent flow of slurry/contaminated water and repair/replace damaged pipe. Contain any leak as far as possible. Contact the Environment Agency if there is any	Immediately stop potential for leak. Replace/repair pipe asap. Time frame depends on dependency on pipe.

	risk of pollution identified.	
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Summary

Bio-aerosols/odour are assessed daily by operators. 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 and as a result have not had any complaints about bio-aerosol/odour emissions. We continually assess management techniques to improve our control of odours and emissions.

In accordance with H4 Odour Management guidance, we will review the effectiveness of our odour 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 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.

If two or more odour complaints linked to the installation have occurred during any given pig cycle and are unresolved at the end of that cycle the Operator will submit to the Environment Agency an action plan for additional measures to rectify the problems and reduce risk of odour pollution. This plan will be submitted for approval in writing to the Environment Agency. Pig placement for the next cycle will not commence until this action plan is agreed by the Environment Agency.

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