

Odour Management Plan

Farm name: Southlands Pig Unit

Operator: JSR Farms

Permit number: EPR/CP3404SW/A001

Introduction

This Odour Management Plan (OMP) has been prepared to support the overall Environmental Management System in place at Southlands Pig Unit. 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 is one residential sensitive receptors which is over 100m but within 400m of the installation boundary to the North of the site. There is no history of complaints. The nearest receptors is a JSR owned house within around 250m of the new site location.

Setting

The installation is located at National Grid Reference 499724,453366 (with a 125m buffer used in the pre-application). Please refer to Site Plans and Supporting Information Document for further maps and diagrams.

Figure 1 shows the location of the farm and of the receptors (with grid references SE99755376, postcode YO25 9AF) which have been considered in this odour management plan.

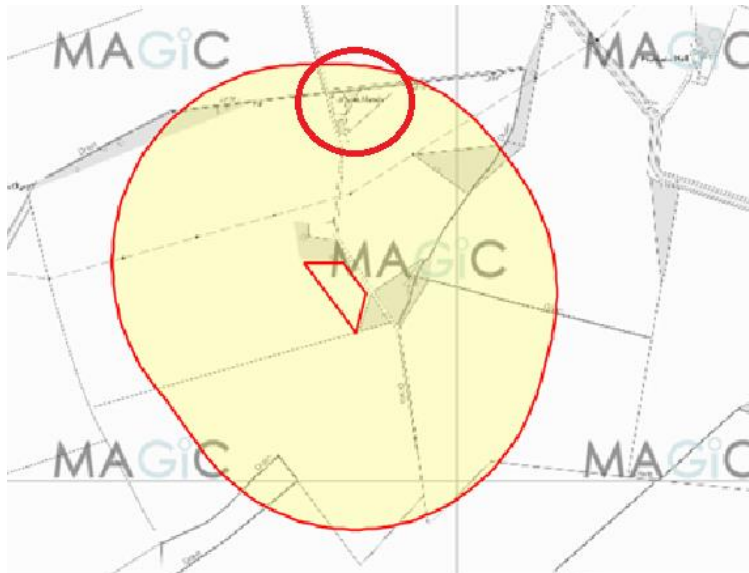


Figure 1: Buffer zone and sensitive receptor 400m buffer zone.

Southlands Receptor Location Details:

Easting = 499757
Northing = 453763
Grid Ref = SE99755376
National Grid Field No = SE 9953 7576
Latitude = 53°58'12.40"N
Longitude = 0°28'44.54"W
Latitude = 53°58.2067"N
Longitude = 0°28.7423"W
Latitude = 53.970111
Longitude = -0.479038
Postcode = YO25 9AF

Distance of Sensitive Receptors from Installation Boundary to nearest point of domestic curtilage.

Figure 2 shows the distance of 900.7m from the new unit to Southburn Village

Figure 3 shows the distance of 250.1m from the new unit to the nearest receptor, JSR owned house.

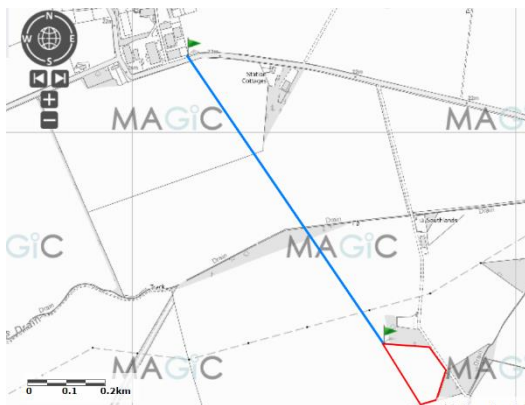


Figure 1 distance from new unit to Southburn Village

Figure 3 distance from new unit to closest receptor

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

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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 slurry storage (under-slats, slurry separation system, slurry tank and solids storage on concrete midden) 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 (incinerator)
- 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 in general. 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 fed to appetite wet 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. Screening stored within covered midden. 	
Slurry/Dirty water storage	<ul style="list-style-type: none"> All slurry is removed from under-slat pits to be applied either directly to JSR land, or to be stored in the onsite, covered, slurry tank. 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 frequently to suitable store with a void always maintained beneath the slats (managed within 800mm threshold). 	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 All pens and stock are checked for cleanliness as part of daily welfare checks All pens and buildings are cleaned out in accordance with cleaning plan on a rotational basis. 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, running at least 7m/sec. These all have chimneys to bring the emission points to >5.5m above ground level. This optimises the ventilation and dispersion (and therefore dilution) of emissions/odours. Feeders and drinkers have been designed to prevent wastage 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 	On-going

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	<ul style="list-style-type: none"> up. Under-slat storage emptied frequently 	
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 and secured storage and disposed of through the incinerator on site. 	On-going
Feed delivery and storage	<ul style="list-style-type: none"> Dry feeds are stored in silos. No liquid feed storage. Wet feed is mixed in a tank before it is distributed via enclosed feed system through to troughs in pens. The feed storage is checked by the site manager in accordance with the site's maintenance schedule. Any leaks are repaired and any spillage cleaned up. All spillages are cleaned up and disposed of promptly 	On-going
Spreading slurry	<ul style="list-style-type: none"> Applied to land in the locality owned and managed by the operator (JSR) 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. Screenings separated and stored within midden. 	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 tank to be mixed with water and then fed as wet feed into feeders. No bedding used. 	On-going
Dealing with odour complaints	<ul style="list-style-type: none"> Any odour complaints will be reported to the Farm Manager 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. 	On-going
General comments	<ul style="list-style-type: none"> Neighbours will be informed (where necessary) prior to activities which may cause odour 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 road into 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.	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

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.