

NEW FARM,
STANTON LANE, STANTON UNDER BARDON

ODOUR MANAGEMENT PLAN

February 2023

Report Ref: 01.0277.001 v2

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[Status: This OMP has been prepared for New Farm, when operational. The OMP will be updated where appropriate with accurate site plans, certificates and other relevant information prior to operation of that unit].

1.0 INTRODUCTION

This Odour Management Plan (OMP) details the methods by which the site operator, M T Baines and Sons, will systematically assess, reduce and prevent potentially odorous emissions from the pedigree Limousin suckler cows and associated livestock.

1.1 About the Site Operators

The Welfare of Farmed Animals (England) Regulations 2007 provides that:

6.—(1) A person responsible for a farmed animal—

(a) must not attend to the animal unless he is acquainted with any relevant code of practice and has access to the code while attending to the animal; and

(b) must take all reasonable steps to ensure that a person employed or engaged by him does not attend to the animal unless that other person—

(i) is acquainted with any relevant code of practice;

(ii) has access to the code while attending to the animal; and

(iii) has received instruction and guidance on the code.

The current farm operators have been in the industry for over 20 years we have gained a wealth of experience in the industry regarding welfare of animals on farm in transit and general good farming practises. These include membership of:

- Red Tractor assurance for both arable and beef (refer to section 2.2.1);
- High health herd scheme for cattle;
- British Limousin Cattle Society;
- National Farmers Union;
- National Register of Sprayer Operators (NRoSO); and
- National Gamekeepers' Organisation (NGO).

The qualifications of the current farm operators include:

- Mechanical engineering level 1 and 2 (City and Guilds);
- Welding level 1 2 and 3 (City and Guilds);
- Type 1 short journey transport license;
- Trailer test full license;
- Level 2 certificate in the welfare of animals during transport;
- SAI global certified approval for growing combinable crops and sugar beet;
- NSTS test for certified spray and fertiliser operation;
- Certificate of compliance for administering medicines on farm; and
- Agricultural health and safety around farm (Iantra).

1.2 Site History

Full planning permission¹ for New Farm was granted on appeal² on 22nd November 2021 as part of a larger hybrid application:

Hybrid application seeking outline permission for the erection of buildings for storage and distribution uses (Class B8) and general industry (Class B2) and associated infrastructure including the formation of a new access (all matters reserved except for access) and the demolition of existing farmstead, and full planning permission for the erection of two replacement farm managers' dwellings and associated agriculture buildings and structures.

As part of the application, the existing Wood Farm has been demolished and all animal housing moved to New Farm. The grazing areas remain largely unchanged (i.e. with exception of land lost to planning application).

This OMP has been prepared in order to ensure compliance with Planning Condition 45 of the approval:

Odour Management

45) Development shall not commence until an odour management plan for protecting existing dwellings from odour from the proposed development has been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the approved odour management plan and all measures integrated shall be operational as long as the development is operational.

1.3 Odour Regulation

At the time of writing, cattle farming is not regulated by the Environmental Permitting Regulations (EPR). Notwithstanding this, M T Baines and Sons must employ the appropriate measures necessary to prevent odour pollution or minimise it when prevention is not practicable.

1.4 OMP Objectives

OMP's are developed and employed with three pollution prevention objectives:

- to identify and employ 'all appropriate measures' to minimise the generation and emissions of odorous substances and subsequent exposure / impact;
- to prevent exposure of people outside the site to levels of odour which would result in annoyance (unacceptable pollution); and
- to minimise the risk of unplanned odour release incidents or accidents which have the potential to result in offsite odour annoyance.

¹ Planning Ref: 21/00531/HYB

² Appeal Ref: APP/K2420/W/21/3279939

This OMP serves to aid the decision-making process on the choice of controls, general site design, and operational practice in line with current industry best practice. The OMP is a working document with the specific aims of ensuring:

- odour impact is considered as part of routine operations;
- the minimisation of the risk of unplanned odour releasing incidents or accidents that could result in offsite annoyance;
- odour is primarily controlled at source by good operational practices, the correct use and maintenance of plant, and operator training; and
- 'all appropriate measures' are taken to prevent or, where that is not reasonably practicable, to minimise odorous emissions to air from the installation.

1.5 OMP Approach and Structure

The OMP is consistent with the requirements of Chapter 7 of Institute of Air Quality Management. *Guidance on the assessment of odour for planning* (Version 1.1 - July 2018). This states that an OMP should contain the following elements:

- an assessment of the risks of odour problems, from normal and abnormal situations, including worst case scenarios, for example of weather, temperature, or breakdowns, as well as accident scenarios;
- the appropriate controls (both physical and management) needed to manage those risks;
- suitable monitoring;
- actions, contingencies and responsibilities when problems arise;
- regular review of the effectiveness of your odour control measures; and
- emission limits (where appropriate).

The OMP is also required to include clear statements to demonstrate that the operator understands and accepts its responsibilities. In particular, it must show:

1. that the operator, either directly or through its contractors or subcontractors, will ensure that any odour control equipment is designed, operated and maintained such that it operates effectively to control odour at all times;
2. that the operator is familiar with the characteristics of the processes and equipment on site and have identified the areas of risk of emissions from odour;
3. how the operator will reduce or cease operations if necessary to avoid serious odour pollution;
4. how the operator will engage with neighbours to minimise their concerns and complaints; and
5. how the operator will respond to complaints.

1.6 OMP Update and Review

Periodic review and update of the OMP will take place on an annual basis, as a minimum. However, the OMP is intended to be a live document which serves as a reference during daily operations, and as such would be updated on a more frequent basis should the following occur:

- significant changes are made to the plant or operational practices;
- the regulator (such as the Council) requests that the OMP is updated; or
- complaints are received, which on subsequent investigation result in the identification of further control measures or remedial action, in addition to those set out within this OMP.

2.0 BACKGROUND

2.1 Description of Operations

New Farm currently runs a herd of 90 pedigree Limousin suckler cows, housed on straw and taking the calves from birth through to finishing at up to 30 months. These animals were previously housed at Wood Farm, to the west along Stanton Lane, which was originally constructed in 1847.

Figure 2-1
Cattle at Wood Farm



The cattle calve all year round. Currently the herd has 3 pedigree stock bulls. Replacements are either bred on the farm or bought in from top Limousin breeders.

The farm sells bulls and breeding heifers at specialist shows, market or directly to other farms. Currently finished animals are sold to ABP Foyles (food processor) at deadweight, and liveweight at Melton and Rugby markets with the cattle being finished at 22 – 30 months. It is possible for there to be up to 360 head of cattle on the farm although more typically around 180-200 animals depending on season. For example animal types and numbers in January would be:

- Approximately 180 total;
- 70 – 75 cows;
- 45 -50 youngstock (<12 months)
- Remainder store cattle.

The cattle are overwintered at New Farm (approximately 1st November to 1st April, weather dependent) with cattle excluding store cattle being grazed in the surrounding landholding for

the remainder of the year. When housed the cattle is fed on a mix of grass and maize silage, wheat and barley (all grown on-farm).

Farmyard manure (FYM), a mix of straw and animal wastes, is disposed of through spreading onto agricultural land as a sustainable source of fertiliser. New Farm has a written farm waste management procedure. With the construction of New Farm there has been no change to existing arrangements in terms of spreading areas - no additional FYM is spread on different areas or at different times, with straw replaced approximately every 6 weeks, stored in field stacks away from receptors and spread in the spring when Regulations allow. Washwater is collected in the on site attenuation lagoon.

The buildings themselves have been designed using latest welfare standards.

2.2 Accreditations / Standards

M T Baines and Sons operate the site in accordance with all relevant industry accreditations and standards, including those below.

2.2.1 Assured Food Standards

Red Tractor³ is a farm assurance scheme which covers production standards developed by experts on safety, hygiene, animal welfare and the environment amongst other things. The A Red Tractor logo on pack means your food or drink has met these responsible production standards and is fully traceable back to independently inspected farms in the UK.

Over 46,000 British farmer members have committed to farming to responsible standards under the Red Tractor Scheme. To achieve certification farmers must meet hundreds of individual standards, covering a wide range of criteria from reducing the impact their farming methods have on the countryside to detailed standards that help protect the health and welfare of farm animals.

M T Baines and Sons operate their site in accordance with the Red Tractor Scheme.

2.2.2 DEFRA Animal Welfare

M T Baines and Sons operates New Farm in accordance with best practice guidance relating to, for example, stocking and welfare. All operations are carried out in accordance with the *DEFRA Code of Recommendations for the Welfare of Livestock: Cattle (2003)*.

2.2.3 RSPCA: welfare standards for Beef cattle (2020)

M T Baines and Sons operates New Farm in accordance with the RSPCA best practice guidance relating to welfare standards for cattle, which is based around the '5 freedoms':

1. Freedom from hunger and thirst by ready access to fresh water and a diet to maintain full health and vigour.
2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area.

³ <http://www.redtractor.org.uk/home>

3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment.
4. Freedom to express normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind.
5. Freedom from fear and distress by ensuring conditions and care which avoid mental suffering.

3.0 POTENTIAL SOURCES OF ODOUR GENERATION AND RELEASE POINTS

This section provides an inventory of all potential odour sources under the full range of non-emergency conditions. The potential sources of odour generation at New Farm are:

- Cattle farmyard manure (cattle wastes, bedding material);
- the animals; and
- silage feed.

Table 3-1 below presents the factors that affect odour variation, in addition to the release points. The subsequent sections describe the potential odour generation and odorants in further detail.

Table 3-1
Odour Sources

Source	Factors effecting source	Release Points
FYM	- Quantity (surface area) - Type of feed - Age of waste	Passive release from naturally ventilated buildings and FYM piles in fields.
Cattle	- Type of feed, size and number of animals - duration housed (and not in fields)	
Carcasses	- Time before removal - Storage time	8 Hours (Maximum) 8 Hours (Maximum)

The duration and conditions of storage of FYM will affect the propensity for continuation of fermentation begun in the gut and further anaerobic degradation when stored.

4.0 SITE SETTING AND METEOROLOGY

The likelihood and frequency of exposure to odour arising from the facility is determined by the magnitude of release, the prevailing meteorological conditions, and the distance and direction of receptors in relation to the facility.

The risk of odour impacts occurring as a result of the operation of the facility has been used to inform the OMP. The sections below summarise the most important environmental aspects in determining the magnitude of impact (with the exception of emission magnitude), i.e. the likely dispersion of emissions based on prevailing winds (pathway) and the location of sensitive odour receptors.

4.1 Receptors

Potentially sensitive receptor locations for odour are typically defined as locations where people spend time and expect a reasonable level of amenity. Therefore, residential properties are generally regarded as the most potentially sensitive locations and recreational areas being of medium sensitivity.

The village of Stanton under Bardon lies approximately 1 kilometre (km) to the east of the main site, some 300m to the east of the farm site, with the village of Bagworth lying approximately 1.3 – 2.3km to the south.

The closest dwellings to the New Farm site are to the south across Stanton Lane:

- Oldfield Farmhouse;
- The Barn; and
- De Schuur

To the east is White House Farm (owned by M T Baines and Sons) and to the west is an electricity substation). Further to the west along Stanton Lane was Wood Farm, also owned by M T Baines and Sons and now replaced by the buildings approved under Application reference 21/00531/HYB.

The New Farm layout, showing nearby buildings (residences) to the south is shown in Michael W Conway Drawing E19-29-010 included overleaf.

4.2 Other Odour Sources Nearby

There are other operations within 2km of the site with the potential to release odours, including agricultural sources. Any odour complaints received must consider whether New Farm is the likely source.

Since the area is rural / agricultural in nature, there is the potential for field spreading of slurries and other odorous wastes onto nearby land. This could, for example, include slurries or FYM from other farms in the region (operated by other farmers).

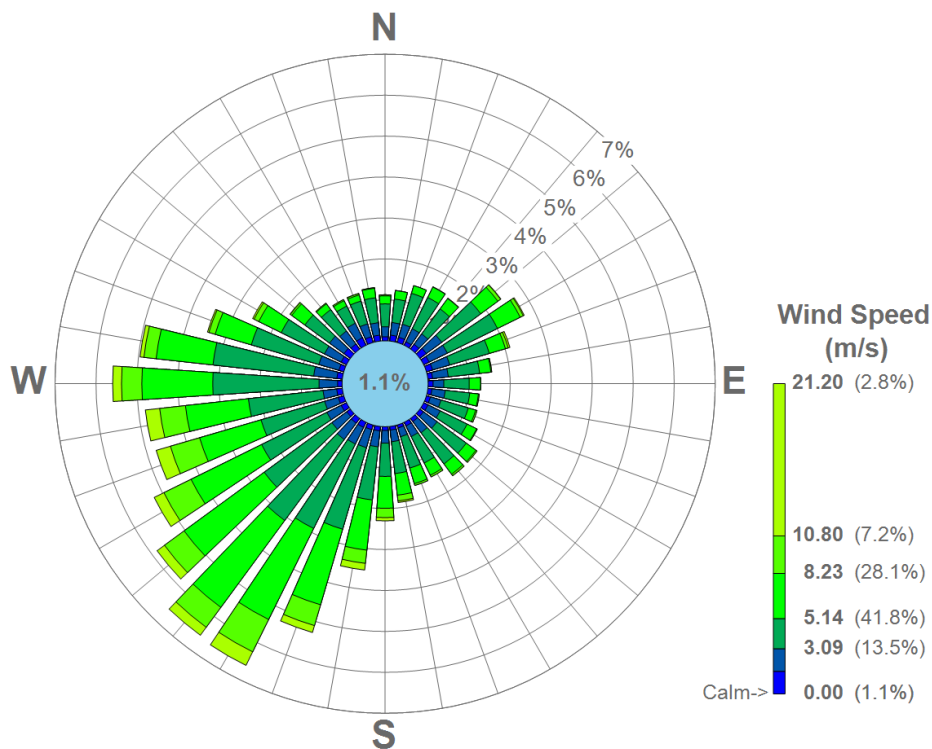
4.3 Meteorology

The pathway by which odours may impact upon receptor locations is a result of atmospheric dispersion. In general, high wind speeds lead to emitted odour being rapidly dispersed and diluted due to turbulence, and conversely low wind speeds inhibit the dilution of odours.

A windrose for East Midlands Monitoring Station (located at East Midlands Airport) is presented in Figure 4-1, below. As is apparent from this windrose, the predominant wind direction is from the south western quarter as is the case for the majority of the UK.

Wind directions from the north i.e. towards Oldfield Farmhouse occur least frequently.

Figure 4-1
Windrose for East Midlands Observing Station (2015 – 2019)



5.0 ODOUR CONTROL MEASURES

This section presents the principals of controlling odour generation and release at New Farm and the specific control and management measures employed.

New Farm is operated and managed in accordance with the accepted hierarchy of preferred controls, that is:

- prevent the formation or emission of odorous compounds in the first place;
- where this is not practicable, minimise the release of odour; then
- abate excessive emissions.

5.1 Stocking

Stocking density will be maintained at (or below) numbers required for animal welfare. Density will not exceed the level described in The Welfare of Farmed Animals (England) Regulations

5.2 Dietary Controls

Diet will directly influence the level of odour and ammonia emissions from housed animals. It is therefore critical for feed composition to be matched to the requirements of the livestock. High feed protein utilisation may be achieved through tailored diets (also known as 'ideal protein' diets).

Animals will therefore be fed a tailored diet dependent upon their size, growth stage, sex and, in the case of sows, other factors such as gestation and lactation status.

5.3 FYM storage

There is no slurry storage at the site as the animals are housed on straw. With the construction of New Farm there has been no change to existing arrangements in terms of spreading areas - no additional FYM is spread on different areas or at different times, with straw replaced approximately every 6 weeks, stored in field stacks away from receptors and spread in the spring when Regulations allow.

5.4 Cleanliness of Yard Areas

Yard areas are not heavily or regularly trafficked by animals in the way that they that they would be in the case of a dairy, for example. All surfaces will be scraped / brushed down as appropriate when animals are moved

5.5 Housing and Management

5.5.1 General Management

The site is run according to the red tractor food assurance scheme. This scheme ensures that the structural integrity and cleanliness of the farm is maintained at all times.

5.5.2 Construction Materials and Design

Wall and floor surfaces have been constructed using non-porous, smooth materials to minimise adhesion of dung and dust and facilitate effective cleaning.

5.5.3 FYM Removal and Spreading

Please refer to section 5.3.

Once removed from the houses the FYM is stored in field stacks away from receptors and spread in the spring when Regulations allow.

5.6 Cleaning

All housing is cleaned out regularly, with FYM / straw replacement every 6 weeks. In the spring when the cattle is moved into the fields the housing is deep cleaned with full FYM removal and washed down ready for the next years overwintering.

5.7 Fallen Stock: Storage and Disposal

The primary means of fallen stock disposal at New Farm is through F Redfern & Sons Ltd (Redferns Fallen Stock), Burlow Road, Buxton SK17 9HT.

5.7.1 Regulations

M T Baines and Sons complies with all current regulations for removal of stock.

5.7.2 Storage

All fallen stock will be removed within the day or a maximum of 8 hours.

5.7.3 Disposal

F Redfern & Sons Ltd (Redferns Fallen Stock) remove all animals in accordance with all current regulations for removal of stock.

5.8 Export of Cattle from Site

Loading areas and trailers (including lorry wheels) are kept clean to ensure that waste products are not transferred from the farm onto the road network.

6.0 MONITORING

Monitoring of odour containment, odorous releases, and dispersion pathways as described in the sections below is undertaken.

6.1 Operational Monitoring

Monitoring of controls that are key to the minimisation of odour generation at New Farm are undertaken as follows:

- stock levels will be monitored, and records maintained within the site management system;
- FYM storage will be monitored via site records; and
- Regular cleaning (as required).

6.2 Monitoring Ambient Odour

Monitoring of ambient odour provides a broad indication of the effectiveness of the odour management as a whole, i.e. odour minimisation, containment, treatment, and dispersion. This is a reactive process and should be considered as a final indicator of odour control effectiveness.

The assessment is “sensory” in that the human nose is used as the detector – a sound approach considering that no analytical instrument can give a unified measure of a complex mixture of compounds in the same way that a human experiences odour.

The Farm staff will remain aware of the potential for abnormal odour release. In the event that complaints are received, at the locations of sensitive receptors as part of the complaint investigation procedure described in Section 7.

6.3 Complaint Logging

Monitoring of impacts will be achieved by recording and monitoring complaints. Complaints may be reported directly to site or via Local Environmental Health or the Environment Agency (24-hr complaint reporting system).

Complaints records will include: date and time, nature of complaint, locality of complaint, name of complainant (if available), a summary of investigation and actions taken and outcome.

6.4 Meteorological Conditions

The Farm staff will take account of meteorological conditions with the highest potential for odour release. This will typically be when FYM is removed from the housing in the spring and animals moved to the fields. Where there is considered to be a high risk of odour detected at the nearest residences due consideration will be given to the method, frequency and duration of FYM removal as well as locations for field storage before application to land.

6.5 Record Keeping

Records are maintained and include the following details (where applicable):

- operational problems including date, time, duration; and cause of problem;
- odour complaints received including address of complainant (if available); and
- details of corrective action taken, and any subsequent changes to operational procedures.

These records will be held in paper or electronic format.

7.0 ODOUR COMPLAINTS: MITIGATION OF COMMUNITY IMPACTS

The following actions will be taken on receipt of an odour complaint:

- The farm manager will be informed of the odour complaint as soon as possible, including the location, time and date (if reported) of the complaint being lodged.
- The farm manager (or any appointed representative) will undertake the following assessment process:
 - Review of the site operations and control systems at the site prior to and at the time of the complaint to include;
 - Check that FYM is being stored appropriately;
 - Check that the scheduled farm cleaning has taken place as appropriate (i.e. scraping of yard areas);
 - determine if any abnormal operating conditions occurring;
 - determine if any accidents or incidents requiring contingency actions were being undertaken;
 - Review of the meteorological conditions (wind speed) prior to and at the time of the complaint – to establish whether a pathway can be established between the site and the complainant;
 - Review the previous history of complaints at the location identified.
- The farm manager (or appointed representative) will visit the complaint location as soon as is possible in order to subjectively determine odour presence/absence and, if present, odour characteristics and intensity in accordance with the procedure detailed in Appendix F.

8.0 EMERGENCY PLANS

There are no emergency situations where accidents (or incidents) would result in the loss of control of odorous substances and could have an unacceptable short-term odour impact on the local community.

APPENDIX A: ACCREDITATIONS

See section 1.1.

APPENDIX B: CLEANING PLAN

The site cleaning will involve the following:

- Sheds cleaned out and disinfected every 6 weeks or whenever is deemed to be suitable;
- Calf pens/birthing pens are cleaned and disinfected every time a new cow or calf goes into pen;
- Machinery washed down that have been in contact with manure;
- Correct PPE worn and used by operators;
- Animals are bedded with straw daily to keep a clean light fluffy bedded area for cattle and calves;
- Controlled machinery operation that only certain machines are used for manure carting and entering to clean sheds and bed animals down;
- Boot wash and disinfected at entrance of farm; and
- Controlled traffic of vehicles.

APPENDIX C: ODOUR OBSERVATION PRO-FORMA

Farm Name: New Farm	Operator: M T Baines and Sons
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Odour report form				Date	
Time of test					
Location of test e.g. street name etc					
Weather conditions (dry, rain, fog, snow etc):					
Temperature (very warm, warm, mild, cold, or degrees if known)					
Wind strength (none, light, steady, strong, gusting) Use Beaufort scale if known					
Wind direction (e.g. from NE)					
Intensity (see below)					
Duration (of test)					
Constant or intermittent in this period or persistence					
What does it smell like?					
Receptor sensitivity (see below)					
Is the source evident?					
Any other comments or observations					

Sketch a plan of where the tests were taken, the potential source(s).

Intensity	Receptor sensitivity where odour detected
0 No odour	Low (e.g. footpath, road)
1 Very faint odour	Medium (e.g. industrial or commercial workplaces)
2 Faint odour	High (e.g. housing, pub/hotel etc)
3 Distinct odour	
4 Strong odour	
5 Very strong odour	
6 Extremely strong odour	
Ref: German Standard VDI 3882, Part 14	

APPENDIX D: ODOUR COMPLAINT FORM

Installation to which complaint relates:	Date recorded:	Ref No:
Name and address of caller:		
Tel No. of caller:		
Location of caller in relation to installation:		
Time and date of complaint:		
Date, time and duration of offending odour:		
Caller's description of odour, e.g. comparison with other odours, strong/weak, continuous, fluctuating:		
Has the caller any other comments about the offending odour?		
Weather conditions (e.g. dry, rain fog, snow):		
Wind strength and direction (e.g. light, steady, strong, gusting):		
Any previous complaints relating to this odour?		
Any other relevant information:		
Potential odour sources that could give rise to the complaint:		

Operating conditions at the time offending odour occurred – e.g. removing manure from housing, deliveries, feeding:			
Follow up Date and time caller contacted:			
Action taken:			
Amendment required to Odour Management Plan:			
Form completed by:		Signed:	