

## Appendix 2: Non-technical Summary

### Cattle Holderness Ltd, Willow Tree Farm

#### EPR/ new application

Site Address :- Willow Tree Farm, Rysome Road, Weeton, HU12 0TA

Grid reference: TA 36452 21250

Applicant is :- Cattle Holderness Ltd, West Farm, Sunk Island, Ottringham, Hull, HU12

OAP Primary contact for site: Richard James Buckle

#### Introduction

Willow Tree Farm is owned and run by Cattle Holderness Ltd. There is no existing pig accommodation on site. The proposal is to build a new fully-slatted and artificially-ventilated pig unit with capacity for 4000 >30kg places (across two houses) with associated plant for slurry separation. Please refer to the site plans in Appendix 4.

Pigs will arrive in at circa 30kg and leave at circa 110kg. The site will be run as a 2 batch system, i.e. when 2000 places are empty the other 2000 will be halfway through.

There will be 4 batches through per year.

Table 1: Occupation

Wk	1	2	3	4	5	6	7	8	9	10	11	12	13
%	100	100	100	100	100	100	100	100	100	90	70	50	20

Average occupation over the full year will be 86.92%. Each 2000 place house would be totally empty for approximately 5 days each batch, or 20 days per year (5.5% downtime).

#### Site Management

*The system will be entirely slurry-based and slurry from pits under fully slatted floors is vacuum emptied from the pits twice per batch – approximately once every 6 weeks. It is pumped into the process tank (242m<sup>3</sup>) where it is mixed and separated. The slurry is then pumped into the 7000m<sup>3</sup> enclosed slurry bag (already installed) which is located to the East of the housing. Pits measure 1300mm but slurry levels will not exceed the 800mm threshold due to the frequency of removal.*

The separated slurry is stored in the slurry separation building as shown on the plan. This building will have 6 months storage. The separated material will then be removed to temporary field heaps from where it will be spread on the land.

Both the slurry and separate is spread on land belonging to the operator. Liquid is applied by dribble bar or injection to reduce creation of bioaerosols. Solids are spread at low trajectory. A Manure Management Plan is in place and is in line with best practice and NVZ regulations.

The new pig houses would be insulated and ventilated by uncapped high speed ridge or roof fans, each with a short chimney. There are 34 fans (four per room, plus 2 in the West Elevation) running at 11m/sec. These all have chimneys to bring the emission points to 6.5m above ground level.

Other than the hardstanding shown on the site plan, there would be 4m of stone around the building perimeter and the rest of the area would be grassed. There are no soakaways or swales. An Attenuation Pond will take all the uncontaminated water from roof areas (via gutters and downpipes) and yard areas (via drain inlets and pipework).

All contaminated water, including wash water from the loading area and spent footbath water containing disinfectant, is directed to the slurry pit.

Feed rations are dry meal, delivered in, with diets formulated to match the growth stage of the pigs and fed ad lib.

Water will be from borehole (with Mains supply available as backup) and will be supplied in nipple drinkers.

There is no incinerator. All deadstock is disposed of via a licensed waste contractor and stored in a lockable container. The location of this container is shown on the site plan. It is moved to the installation entrance at collection for biosecurity.

Chemicals and medicine will be kept in the locked biosecurity room, which is part of the building (see Site Plan). There is no fuel store. There will be no agrochemicals stored on site, but there will be approx. 10kg of rodenticide on site at any time.

There is an alarm system in case of power cuts, with emergency release of windows and doors to compensate immediately for forced ventilation failure. A back-up generator will be available from local plant hire to run the ventilation system in case of an electrical failure issue that isn't easily and quickly resolved. There is no permanently stationed generator.

Electricity for the pig units will be sourced from wind energy. A wind turbine is located to the East of the installation (shown on the location plan in Appendix 4) and will feed into the farm electric with excess generation feeding back into the grid. LED lighting will be installed.

The building will only have one entrance via a door which will be locked. The loading ramp will have a roller shutter door operated from inside the building. The site gates are locked at night to prevent pedestrian and vehicle access out of hours

The above activities are managed in accordance with the Environmental Management Plan (summary in Appendix 3), which describes control measures and management procedures for all above operations at the site and provides Action Plans to address potential accident and emergency situations, and other non-operational occurrences.

## Site Location

The site is in a rural area approximately 1.1 km to the north-east of the small village of Weeton and 1.6 km to the east of the village of Welwick. The surrounding area is mainly large arable fields, field boundary hedgerows and isolated tree planting. The landscape is flat to gently undulating.

The sites are remote from any centre of population and benefit from an existing farm access road from the public highway – Rysome Road – with the access track leading only to the proposed site and a wind turbine. The combination of the low height of the buildings, remote nature of the site, and existing trees and hedgerows, is such that the buildings are not visually prominent within the landscape.

The nearest sensitive receptors are over 650m from the installation boundary to the North of the site. As a greenfield site, there is no history of complaints, therefore there is currently no requirement for Odour, Noise or Bio-aerosol management plans.

## Site checks and modelling

There is one Local Wildlife Site (LWS), a roadside verge to the south-east of the site. There are two Sites of Special Scientific Interest (SSSIs) within 5 km of the site of the proposed piggery; Dimlington Cliffs SSSI to the east-north-east and The Humber Estuary SSSI to the south, parts of which are also designated as a Special Area of Conservation (SAC), Special Protection Area (SPA) or a Ramsar site.

A site check report on the 11/02/2020, using the Defra Magic Maps application, can be summarised as follows:

- Ramsar site - HUMBER ESTUARY (ref UK11031), about 2.7km South from installation boundary at closest point
- SSSI – Humber Estuary – classed as “Unfavourable No Change” to “Unfavourable Recovering”, about 2.7km South from installation boundary at closest point
- SSSI - DIMLINGTON CLIFF – classed as FAVOURABLE, 2.4km East from installation boundary at closest point
- SAC - HUMBER ESTUARY - about 2.7km South from installation boundary at closest point
- SPA – HUMBER ESTUARY - about 2.7km South from installation boundary at closest point
- Not in a flood risk area
- Not in an NVZ
- No Local Nature Reserves
- Not in a Drinking Water Protected Area or Safeguard Zone for Surface Water or Groundwater

AS Modelling & Data Ltd. has been instructed by Ian Pick of Ian Pick Associates Ltd., on behalf of Cattle Holderness Ltd, to use computer modelling to assess the impact of ammonia emissions from the proposed pig rearing houses at this site (see Appendix 1b).

Maps of the surrounding area showing the positions of the proposed pig houses, the SSSIs, Ramsar, SAC and SPA sites within 5km are provided in Figures 1a and 1b of the Ammonia Modelling Report (Appendix 1b).

The modelling summary is as follows:

*“The modelling predicts that the process contribution of the proposed piggery at land East of Weeton North Lane to annual mean ammonia concentrations and nitrogen deposition rates would be below the Environment Agency’s lower threshold percentage of the relevant Critical Level or Critical Load at all the wildlife sites considered and also 1% of the Critical level and critical load at the SSSIs and the SAC/SPA/Ramsar”.*

## **Appendix 2(a) BAT-AEL Review**

Referring to the IRPP BAT Conclusions document, we can confirm that we will be able comply with the new conclusions, including the revised BAT Associated Emission Levels (BAT-AEL).

The standard emission factor for pigs for our proposed kind of housing is 3.11 and, to meet the new requirements, the emission per pig must not exceed 2.6kg NH<sub>3</sub>/animal place /year.

Taking 3.11 as the starting point then -

- this emission factor is based on an assumption that the building is continuously at capacity. Each 2000 place house would be totally empty for approximately 5 days each batch, or 20 days per year (5.5% downtime)
- $3.11 \times 0.05 = 0.16$
- $3.11 - 0.16 = 2.95$

This still exceeds the required AEL of 2.6.

1. Planned Crude Protein % of rations is as follows:
  - Grower (30-50kg) = 18%
  - Fin 1 (50-85kg) = 16.5%
  - Fin2 (85-120kg) = 14.6%

= 16.36% average

Comparing to rations in the same supply chain, 2014 Crude Protein levels were at:

- Grower (30-70kg) = 17.09%
- Finisher (70-120kg) = 18.02 %

= 17.55% average

This equates to a -1.19 reduction in crude protein percentage from 2014 to 2019.

1% reduction in protein content is equivalent to 10% reduction in ammonia emission.

$$3.11 \times 0.119 = 0.37$$

$3.11 - 0.16$  (for downtime)  $- 0.37$  (for CP reduction) = 2.58 AEL which is below the current threshold of 2.6 for BAT.

Therefore, the proposal complies with the revised BAT Associated Emission Levels (BAT-AEL).

## **Reporting**

### BAT conclusions 3 and 4:

We adopt a nutritional strategy to reduce the levels of nitrogen (N) and phosphorus (P) excretion and can demonstrate we are meeting the BAT associated excretion levels given in table 1.1 and table 1.2. Feed docket and a current generic statement can be provided to demonstrate a reducing protein (N) and phosphorus (P or total P) diet over the whole life cycle.

### BAT conclusion 24:

We will use manure analysis to estimate total N and P content in manure and will report this to you annually.

### BAT conclusion 25:

We will monitor ammonia emissions and demonstrate emission levels through use of emission factors.

### BAT conclusion 27:

We will monitor and demonstrate dust emissions from each animal house, by use of emission factors.