

Permitting decisions

Variation

We have decided to grant the variation for Caenby Cliff Farm - Danby Pig Unit operated by Crockway Farms Limited.

The variation number is [EPR/NP3231JC/V002](#).

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#)

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

Key issues of the decision

Slurry Lagoon

The variation incorporates a new slurry lagoon which is located approximately 2.5km south of the main site area where the pigs are housed.

The net volume of the lagoon is 8,549m³ when not including the required 750mm freeboard. Combined with the two existing slurry storage tanks, each having 1,330m³ capacity, the site will be able to store a total of 11,209m³. The applicant has demonstrated that there is sufficient slurry storage space for 6 months' worth of slurry for the 8,000 production pigs.

The lagoon will have a 450 gsm geotextile layer and a 2mm thick HDPE liner, and will be fitted with an automated leak detection system. The pipeline that connects the farm to the lagoon will be 200mm High Density Polyethylene Pipe. The operator has committed to weekly maintenance checks of the pipeline with any repair work being completed immediately. As a visual inspection would be difficult to pick up all faults in the pipeline, the operator has committed to carrying out regular pressure testing of the pipeline too, so any potential leaks could be detected.

We believe the proposal meets the SSAFO regulations and will have additional management measures to reduce the risk of slurry leaks or spills.

New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is now a separate BAT Conclusions document which will set out the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN>

Now the BAT Conclusions are published **all new housing within variation applications** issued after the 21st February 2017 must be compliant in full from the first day of operation.

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels for ammonia emissions which will apply to the majority of permits, as well as BAT associated levels for nitrogen and phosphorous excretion.

For some types of rearing practices stricter standards will apply to farms and housing permitted after the new BAT Conclusions are published.

This variation determination includes a review only of BAT compliance for new housing introduced with this variation. A BAT review of existing housing compliance with BAT conclusions document is to be the subject of a sector permit review and is beyond the scope of this variation application permit determination.

New BAT conclusions review

There are 34 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

The Applicant has confirmed their compliance with all BAT conditions for the new housing, in their document reference 'Establishing Best Available Techniques' and dated 07/03/18. This has been referenced in Table S1.2 Operating techniques of the Permit.

The following is a more specific review of the measures the Applicant has applied to ensure compliance with the above key BAT measures.

BAT measure	Applicant compliance measure
BAT 3 Nutritional management Nitrogen excretion	The Applicant has confirmed it will demonstrate it achieves levels of Nitrogen excretion below the required BAT-AEL of 13.0 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content. Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 4 Nutritional management Phosphorous excretion	The Applicant has confirmed it will demonstrate it achieves levels of Phosphorous excretion below the required BAT-AEL of 5.4 kg P ₂ O ₅ animal place/year by an estimation using manure analysis for total Phosphorous content. Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions
BAT 25 Monitoring of emissions and process parameters - Ammonia emissions	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 26 Monitoring of	The approved OMP includes the following details for on Farm Monitoring and Continual

BAT measure	Applicant compliance measure
emissions and process parameters - Odour emissions	Improvement: - Before exporting slurry the wind direction is observed by the operator to ensure minimal disturbance to local residents. - All pens and stock checked for cleanliness as part of daily welfare routines. - In the event of a substantiated complaint, regular monitoring of odour will be incorporated in the OMP.
BAT 27 Monitoring of emissions and process parameters - Dust emissions	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.
BAT 30 Ammonia emissions from pig houses	The Applicant has confirmed it will demonstrate it achieves levels of ammonia below the required BAT-AEL for the following pig types: Pigs > 30kg: 2.6 kg NH ₃ /animal place/year. The Installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL.

More detailed assessment of specific BAT measures

Ammonia emission controls

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT.

Ammonia emission controls – BAT conclusion 30

The new BAT conclusions include a set of BAT-AELs for ammonia emissions to air from animal housing for pigs. For variations all new housing on existing farms will need to meet the BAT-AEL.

More detailed assessment of AEL's

Pig housing

To meet the BAT AELs for pigs >30kg the applicant had to demonstrate that the site could reduce the crude protein in the pigs feed. This information is provided in Table 1 below.

Table 1: Confirmation of meeting Ammonia BAT AELs

Pig Category	Original Emission Factor (kg NH ₃ /animal place/year)	Emission factor reduction [1]	New emission Factor (kg NH ₃ /animal place/year)	BAT – AEL for newly permitted houses (kg NH ₃ /animal place/year)
>30 kg	3.11	16.5%	2.59	2.6

Note 1 - The emission factor has been reduced as the applicant has demonstrated that the crude protein in the pigs feed has been reduced by 1.65%.

Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February 2013 and came into force on 27 February 2013. These Regulations transpose the requirements of the IED.

This permit implements the requirements of the European Union Directive on Industrial Emissions.

Groundwater and soil monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain a condition relating to protection of soil, groundwater and groundwater monitoring. However, the Environment Agency's H5 Guidance states **that it is only necessary for the operator to take samples** of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be existing contamination and:

- The environmental risk assessment has identified that the same contaminants are a particular hazard; or
- The environmental risk assessment has identified that the same contaminants are a hazard and the risk assessment has identified a possible pathway to land or groundwater.

H5 Guidance further states that it is **not essential for the Operator** to take samples of soil or groundwater and measure levels of contamination where:

- The environmental risk assessment identifies no hazards to land or groundwater; or
- Where the environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historic contamination by those substances that present the hazard; or
- Where the environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historic contamination by those substances that pose the hazard.

The site condition report (SCR) for Caenby Cliff Farm - Danby Pig Unit (dated 07/06/18) demonstrates that there are no hazards or likely pathway to land or groundwater and no historic contamination on site that may present a hazard from the same contaminants. **Therefore, on the basis of the risk assessment presented in the SCR, we accept that they have not provided base line reference data for the soil and groundwater at the site at this stage and although condition 3.1.3 is included in the permit no groundwater monitoring will be required.**

Odour

Intensive farming is by its nature a potentially odorous activity. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance (http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf).

Condition 3.3 of the environmental permit reads as follows:

"Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour."

There are no sensitive receptors within 400 metres of the pig sheds. There is one receptor within 400m of the lagoon, at approximately 350m from the permit boundary. There are also receptors closer to the permit boundary where the underground slurry pipeline runs.

The Operator has provided an odour management plan (OMP) as part of the Application supporting documentation.

Odour Management Plan Review

The Operator confirmed that there is no history of odour complaints for the operation of the pig unit. The operator has provided sufficient evidence that appropriate management methods will be in place to reduce the risk of odour nuisance at the nearest receptors. The following areas were covered by the OMP.

- Effects of diet on odour & ammonia emissions
- Slurry storage
- Cleanliness of yard areas

- All housing and management
- Animal carcasses
- Feed storage and feed distribution
- Dust
- Unexpected problems

We have assessed the OMP and the H1 risk assessment for odour and conclude that the Applicant has followed the guidance set out in EPR 6.09 Appendix 4 'Odour management at intensive livestock installations'. We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of odour pollution / nuisance.

Noise

Intensive farming by its nature involves activities that have the potential to cause noise pollution. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance. Under section 3.4 of this guidance a Noise Management Plan (NMP) must be approved as part of the permitting determination, if there are sensitive receptors within 400m of the Installation boundary.

Condition 3.4 of the Permit reads as follows:

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable to minimise the noise and vibration.

There are no sensitive receptors within 400 metres of the pig sheds. There is one receptor within 400m of the lagoon, at approximately 350m from the permit boundary. There are also receptors closer to the permit boundary where the underground slurry pipeline runs.

The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation.

Noise Management Plan Review

The Operator confirmed that there is no history of noise complaints for the operation of the pig unit. The operator has provided sufficient evidence that appropriate management methods will be in place to reduce the risk of noise nuisance at the nearest receptors. The following areas were covered by the NMP.

- Feeding pigs
- Pig moving and loading
- Delivery of feed, supplies and materials
- Slurry tanker filling and emptying
- Vehicles operating within installation boundaries
- Ventilation fans
- Site infrastructure

Conclusion

We have assessed the NMP and the H1 risk assessment for noise and conclude that the Applicant has followed the guidance set out in EPR 6.09 Appendix 5 'Noise management at intensive livestock installations'. We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of noise pollution / nuisance.

Dust and Bioaerosols

The use of Best Available Techniques and good practice will ensure minimisation of emissions. There are measures included within the Permit (the 'Fugitive Emissions' conditions) to provide a level of protection. Condition 3.2.1 'Emissions of substances not controlled by an emission limit' is included in the Permit. This is used in conjunction with condition 3.2.2 which states that in the event of fugitive emissions causing pollution following commissioning of the Installation, the Operator is required to undertake a review of site activities,

provide an emissions management plan and to undertake any mitigation recommended as part of that report, once agreed in writing with the Environment Agency.

There are two sensitive receptors within 100m of the Installation boundary, the nearest sensitive receptor (the nearest point of their assumed property boundary) is approximately 10 metres to the north of the installation boundary. As there are receptors within 100m of the Installation, the Applicant was required to submit a dust and bioaerosol risk assessment in this format.

In the guidance mentioned above it states that particulate concentrations fall off rapidly with distance from the emitting source. This fact, together with the proposed good management of the Installation such as keeping areas clean from build-up of dust, and other measures in place to reduce dust and risk of spillages (e.g. litter and feed management/delivery procedures) all reduce the potential for emissions impacting the nearest receptors. The Applicant has confirmed the following measures in their operating techniques to reduce dust:

- Feed delivery systems are sealed
- All feed is in covered bins
- Collection of any feed spill is undertaken as soon as possible
- Feed is supplied only from UFAS accredited feed mills
- Fully slatted accommodation means no bedding is used
- High velocity roof fans disperse the emissions and reduce the impact to the nearest sensitive receptor
- Buildings washed out between batches with disinfectant

Conclusion

We are satisfied that the measures outlined in the Application will minimise the potential for dust and bioaerosol emissions from the Installation.

Ammonia

There are no Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar sites located within 5 kilometres of the installation. There is one Site of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also four Local Wildlife Sites (LWS) within 2 km of the installation.

The ammonia emissions from the farm will be from two separate locations as the slurry lagoon is located approximately 2.5km from the pig sheds. Therefore the ammonia assessment has been based on emissions from two separate locations, and the combined impact on the habitats. As there are two separate locations for ammonia emissions, it was not possible to screen out habitats based on the distance from the emission source.

Ammonia assessment – SSSI

The following trigger thresholds have been applied for assessment of SSSIs:

- If the process contribution (PC) is below 20% of the relevant critical level (CLE) or critical load (CLO) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded an assessment alone and in combination is required. An in combination assessment will be completed to establish the combined PC for all existing farms identified within 5 km of the SSSI.

Screening using the ammonia screening tool version 4.5 has indicated that the PC for Normanby Meadow SSSI is predicted to be less than 20% of the critical level for ammonia emissions therefore it is possible to conclude no damage. The results of the ammonia screening tool version 4.5 are given in the tables below.

Table 1 – Ammonia emissions

Site	Ammonia Cle ($\mu\text{g}/\text{m}^3$)	PC ($\mu\text{g}/\text{m}^3$)	PC % critical level
Normanby Meadow	1*	0.85	8.5

**A precautionary level of $1 \mu\text{g}/\text{m}^3$ has been used during the screen. Where the precautionary level of $1 \mu\text{g}/\text{m}^3$ is used, and the process contribution is assessed to be less than the 20% insignificance threshold in this circumstance it is not necessary to further consider nitrogen deposition or acid deposition critical load values. In these cases the $1 \mu\text{g}/\text{m}^3$ level used has not been confirmed, but it is precautionary.*

No further assessment is required.

Ammonia assessment - LWS

The following trigger thresholds have been applied for the assessment of these sites:

- If the process contribution (PC) is below 100% of the relevant critical level (CLe) or critical load (CLo) then the farm can be permitted with no further assessment.

Screening using the ammonia screening tool version 4.5 has determined that the PC on the LWS for ammonia emissions from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect. See results below.

Table 2 - Ammonia emissions

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Owmbly Cliff Road Verge	1*	0.540	54.0
Brightwater Green Burial Meadow	1*	0.061	6.1
Caenby Corner	1*	0.618	61.8
Norton Place Fish Ponds	1*	0.389	38.9

** Precautionary CLe of 1 $\mu\text{g}/\text{m}^3$ has been used. Where the precautionary level of 1 $\mu\text{g}/\text{m}^3$ is used, and the process contribution is assessed to be less than 100% the site automatically screens out as insignificant, and no further assessment of critical load is necessary. In these cases the 1 $\mu\text{g}/\text{m}^3$ level used has not been confirmed, but it is precautionary.*

No further assessment is required.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Consultation/Engagement	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> • Health and Safety Executive • Local Authority – Environmental Health • Public Health England and Director of Public Health <p>The comments and our responses are summarised in the consultation section.</p>
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	<p>The operator has provided a description of the condition of the site, which we consider is satisfactory.</p> <p>The site includes a 2.5km stretch between the main farm area, and the slurry storage lagoon. Please see key issues for further information.</p>
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.

Aspect considered	Decision
Operating techniques	
General operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>The operating techniques are as follows:</p> <ul style="list-style-type: none"> • The sheds will have fully slatted floors with frequent slurry removal • The sheds will have high velocity roof mounted ventilation • Nipple drinkers will be installed
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p> <p>Please see key issues for further information.</p>
Noise management	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.</p> <p>We consider that the noise management plan is satisfactory.</p> <p>Please see key issues for further information.</p>
Permit conditions	
Updating permit conditions during consolidation	<p>We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.</p>
Emission limits	<p>Emission Limit Values (ELVs) or equivalent have been set for the following substances in accordance with relevant BAT:</p> <ul style="list-style-type: none"> • Nitrogen • Phosphorus • Ammonia
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>These monitoring requirements have been imposed in order to comply with the relevant BAT measures.</p>
Reporting	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. We made these decisions in accordance with the relevant BAT measures.</p>
Operator competence	
Management system	<p>There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.</p>

Aspect considered	Decision
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.</p>

Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from
Public Health England, date received 09/07/18
Brief summary of issues raised
The main emissions of potential public health significance are emissions to air of bioaerosols, dust including particulate matter and ammonia.
Summary of actions taken or show how this has been covered
Please see the dust and bioaerosols section of key issues for further information.