

Environment Agency permitting decisions

Bespoke Variation

We have decided to issue the variation for Hill Top Pig Farm operated by Mr Russell Brooks, Mr Artis Brooks and Mrs Dinah Brooks

The variation number is EPR/RP3236MU/V004

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.

Description of the changes introduced by the Variation

This is a Substantial Variation.

Four new buildings will be added, each with places for 600 growers. This is an increase of 2400 places, taking the total installation size from 4600 places to 7000 places. The new buildings will be naturally ventilated on straw push through. They will be operated in the same way as the existing straw based buildings.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Industrial Emissions Directive (IED)

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

Amendments have been made to the conditions of this variation so that it now 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.

Ammonia emissions

There are 3 Special Areas of Conservation (SAC), 1 Special Protection Area (SPA) and 1 Ramsar site located within 10 kilometres of the installation. There is 1 Site of Special Scientific Interest (SSSI) located within 5 km of the

installation. There are also 7 Local Wildlife Sites (LWS) and 1 Ancient Woodland (AW), within 2 km of the installation.

Ammonia assessment – SAC/SPA/Ramsar sites

The following trigger thresholds have been designated for the assessment of European sites:

- If the process contribution (PC) is below 4% 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 10 km of the application.

Screening using the ammonia screening tool (version 4.4) and Detailed modelling (dated June 2015) has determined that the PC on the SAC/SPA/Ramsar for ammonia, acid and nitrogen deposition from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. See results below.

Detailed modelling provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU) and we have confidence that we can agree with the report conclusions.

River Wensum (SAC) is water based with no relevant land features, therefore this designation does not need to be assessed further.

Table 1 – Ammonia emissions

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of Critical level
The Broads (SAC)	1	0.099	0.9
Broadland (Crosthwick Marsh) – SPA	1	0.009	0.9
Broadland (Crosthwick Marsh) – Ramsar			
Norfolk Valley Fen (SAC)	1	0.009	0.9

Table 2 – Nitrogen deposition

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
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The Broads (SAC)	10	0.07	0.7
Broadland (Crostown Marsh) – SPA	5	0.07	1.4
Broadland (Crostown Marsh) – Ramsar			
Norfolk Valley Fen (SAC)	5	0.05	0.9

Note [1] Critical load values taken from Air Pollution Information System (APIS) website (www.apis.ac.uk) – 22/09/15

Table 3 – Acid deposition

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
The Broads (SAC)	0.497	0.005	1.0
Broadland (Crostown Marsh) – SPA	0.542	0.0050	0.9
Broadland (Crostown Marsh) – Ramsar			
Norfolk Valley Fen (SAC)	0.66	0.0033	0.5

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 22/09/15

No further assessment is necessary.

Ammonia assessment – SSSIs

The only SSSI within 5km of the installation is the River Wensum. River Wensum (SAC) is water based with no relevant land features, therefore this designation does not need to be assessed further.

Ammonia assessment - LWS/AW/LNR

There are 7 LWS and 1 AW, within 2 km of the installation. The following trigger thresholds have been applied for the assessment of these sites.

1. If PC is <100% of relevant critical level or load, then the farm can be permitted (H1 or ammonia screening tool)
2. If further modelling shows PC <100%, then the farm can be permitted.

Screening using the ammonia screening tool (version 4.4) and Detailed modelling (dated June 2015) has determined that the PC on the LWS/AW for ammonia, acid and nitrogen deposition from the application site are under the 100% threshold and can be screened out.

Detailed modelling provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU) and we have confidence that we can agree with the report conclusions.

Table 4 - Ammonia emissions

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$ ^[1]	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
LWS			
Black Park & the Thicket (castle Hill)	3	0.25	8.3
Black Park & the Thicket (Black Park)	3	0.784	26.1
The Wilderness	3	1.584	52.8
Pyeburn Lane Woodland	1	0.842	84.2
Canham's Hill	1	0.871	67.1
Horsford Woods	1	0.837	83.7
Horsham Meadows	3	2.173	72.4
AW			
The Wilderness	3	1.584	52.6

Note 1: Where a CLe 3 has been used, no protected lichen or bryophytes species were found when checking easimap layer. Where a precautionary CLe of $1 \mu\text{g}/\text{m}^3$ has been used and the process contribution is assessed to be <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.

Table 5 – Nitrogen deposition

Site	Critical load kg N/ha/yr ^[1]	Predicted PC kg N/ha/yr	PC % of critical load
LWS			
Black Park & the Thicket (castle Hill)	20	1.30	6.5
Black Park & the Thicket (Black Park)	10	4.07	40.7
The Wilderness	10	8.04	80.4
Horsham Meadows	20	11.29	56.4
AW			
The Wilderness	10	8.04	80.4

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 22/09/15

A critical load of 20 kgN/ha/yr was used for Horsham Meadows. Given that the north east corner of this site contains woodland and critical load of 10 kgN/ha/yr may be more precautionary. Although the applicant had not specifically modelled at this site, contour plots provided with their modelling shows that the PC for N deposition would be well below a critical level of 10 kgN/ha/yr.

Table 6 – Acid deposition

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
LWS			
Black Park & the Thicket (castle Hill)	0.87	0.0928	10.7
Black Park & the Thicket (Black Park)	0.87	0.2909	33.4
The Wilderness	1.04	0.574	55.1
Horsham Meadows	4.76	0.806	16.9
AW			
The Wilderness	1.04	0.574	55.1

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 22/09/15

No further assessment for these sites is required.

Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met Yes
Receipt of submission		
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 commercial confidentiality.	✓
Consultation		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> • Health and Safety Executive • Public Health England • Director of Public Health • Local Authority 	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
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.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p> <p>The installation boundary has been expanded through this variation. The new pig houses sit on land that is largely within the existing site boundary but the boundary has been extended slightly to the side of the new sheds. The applicant provided an updated site condition report to cover the land on which the new pig houses will sit. The land was described as uncontaminated land that has been used solely for agricultural use.</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>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the site</p> <p>See key issues section for more details.</p> <p>A summary of the assessment was sent to Natural England for their information.</p>	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>See key issues section for more details.</p>	✓
Operating	We have reviewed the techniques used by the operator	✓

Aspect considered	Justification / Detail	Criteria met Yes
techniques	<p>and compared these with the relevant guidance notes.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the Sector Guidance Note EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs. In summary the measures used will be:</p> <ul style="list-style-type: none"> • Current buildings are all straw based with natural ventilation except building 9b which is fully slatted with roof ventilation. The new buildings will be straw based, naturally ventilated and operated as per the existing stare based buildings. • Straw is pushed out and exported daily. • Dirty water will be collected in underground tanks • Clean water is routed to soakaways • Feed is reviewed on a monthly basis for protein and phosphorous contents. A two diet system is used • Dead pigs are removed and placed in locked containers and collected regularly • Water use is recorded and checked. Nipple drinkers are used and maintained regularly • The diesel tank is bunded • Management plans are in place for dust/bioaerosols, odour and noise <p>We, the Environment Agency, have reviewed and approved the Odour Management Plan (OMP) and consider it complies with the requirements of our H4 Odour management guidance note. We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the operator.</p> <p>The key points of the OMP are:</p> <ul style="list-style-type: none"> • Manure is exported from the site on the same day as pushing out 	

Aspect considered	Justification / Detail	Criteria met Yes
	<ul style="list-style-type: none"> • Manure is exported for land-spreading at other farms. • There are multiple outlets for manure to act as a contingency • The type of feed is controlled to ensure N and P levels are controlled • Feed delivery systems are sealed • Ventilation is designed to keep optimum conditions in the buildings • Maintenance schedules are in place • Carcasses are stored in sealed containers, stored in shaded area and kept away from sensitive receptors. They are collected regularly. • Correct stocking density is maintained • Nipple drinkers are used to minimise spillage. The system is checked regularly • Sufficient straw bedding is used to stop water pooling • Pig races are cleaned down immediately after loading • Pens are soaked down before being washed to minimise wash down time. • Dust build up is washed away during washout and so a large build up does not occur • Measures in place to control unexpected odour such as absorbent materials and back up machinery dealers for breakdowns. • An odour complaints procedure is in place • The OMP will be reviewed following a substantiated complaint or every four years. • If there are complaints the operator will agree a plan with the Environment Agency to put measures in place to resolve. If no control measures can be found then the plan will include destocking down to a level where odour will not be an issue. <p>The Operator submitted a noise management plan. They key points from the plan are:</p> <ul style="list-style-type: none"> • Deliveries made during daytime if possible • Vehicles and roadways maintained • Excessive speed avoided 	

Aspect considered	Justification / Detail	Criteria met Yes
	<ul style="list-style-type: none"> • Reversing beepers only used in daytime • Animal movements during working hours • Machinery sited as far as possible from neighbours • Feed building acts as screen between delivery vehicle and nearest housing • Conveyors and augers not operated when empty • Blower and vacuum type delivery vehicles fitted with low noise units • Most buildings naturally ventilated • Fans maintained and sited away from neighbours. Cowls used • Weekly alarm test timed to avoid nuisance • Ad lib feeders and straw buildings minimise noise from pigs • During loading pig noise is minimised by careful handling 	
The permit conditions		
Updating permit conditions during consolidation.	<p>We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	<p>We have decided that emission limits should be not set in the permit.</p> <p>.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Monitoring	No monitoring is required in this permit.	✓
Reporting	There are no changes to reporting as a result of this variation.	✓
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓

Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

Response received from Public Health England
Brief summary of issues raised
The Environment Agency should consider conditions to ensure that bioaerosols, dust and ammonia do not impact on human health. If BAT is used then the emissions should pose a low risk to human health
Summary of actions taken or show how this has been covered
The applicant submitted a dust, bioaerosol and fugitive emissions management plan and the permit contains conditions that requires appropriate measures are used to control emissions including those in the plan. The applicant's proposals for the new buildings are BAT.