Environment Agency permitting decisions

Variation
We have decided to issue the variation for Whiteshoot Farm Pig Unit operated by Mr Anthony Allen and Mrs Carol Allen (Trading as Winterbrook Farm Partners).

The variation number is EPR/JP3735NX/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:

- 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

- Description of main features of the installation/the changes introduced by the variation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Description of the changes introduced by the Variation

This is a Substantial Variation.

The variation increases the number of production pigs (over 30 kg) from 3,800 to 5,400 places, and allows the addition of animal places for rearing of 2,800 pigs up to 30 kg as a Directly Associated Activity and an increase in permitted area to include six new nursery buildings.

Key issues of the decision

Ammonia Emissions

There are 2 Special Areas of Conservation (SAC) sites within 10 km of the installation, there are 3 Sites of Special Scientific Interest (SSSI) within 5 km of the installation and there are 4 Local Wildlife Sites (LWS) within 2 km of the installation.

Ammonia assessment – SAC

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.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Whiteshoot Farm will only have a potential impact on the SAC sites with a precautionary critical level of 1µg/m^3 if they are within 9133 metres of the emission source.

Beyond 9133 m the PC is less than 0.04µg/m^3 (i.e. less than 4% of the precautionary 1µg/m^3 critical level) and therefore beyond this distance the PC is insignificant. In this case one SAC is beyond this distance (see table below) and therefore screens out of any further assessment.

Where the precautionary level of 1µg/m^3 is used, and the process contribution is assessed to be less than 4% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the 1µg/m^3 level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely significant effect

Table 1 – SAC Assessment

Name of SAC	Distance from site (m)
Hartslock Wood	9242 m

Little Wittenham SAC is within 9133 m, however the Audited Critical Levels Spreadsheet stated that the site has only been designated due to the presence of Great Crested Newts. The critical levels are therefore not appropriate. This has been confirmed with information from APIS.

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 5km of the application.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Whiteshoot Farm will only have a potential impact on SSSI sites with a precautionary critical level of 1µg/m^3 if they are within 3814 metres of the emission source.

Beyond 3814 m the PC is less than 0.2µg/m^3 (i.e. less than 20% of the precautionary 1µg/m^3 critical level) and therefore beyond this distance the PC is insignificant. In this case one SSSI is beyond this distance (see table below) and therefore screens out of any further assessment.

Where the precautionary level of 1µg/m^3 is used, and the process contribution is assessed to be less than 20% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the 1µg/m^3 level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely damage to these sites.

Table 2 – SSSI Assessment

Name of SSSI	Distance from site (m)
Moulsford Downs SSSI	3956 m

Screening using the ammonia screening tool version 4.5 has indicated that the PC for Streatley Warren SSSI is predicted to be less than 20% of the critical level for ammonia emissions, nitrogen deposition and acid deposition 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 3 – Ammonia emissions

Site	Ammonia Cle (µg/m^3)	PC (µg/m^3)	PC % critical level
Streatley Warren SSSI	3**	0.235	7.8

** Natural England advised that a CLe of 3 for ammonia should be applied across the Streatley Warren SSSI (August 2011)

Table 4 – Nitrogen deposition

Site	Critical load kg N/ha/yr [1]	PC kg N/ha/yr	PC % critical load
Streatley Warren SSSI	15	1.218	8.1

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/18/2015

Table 5 – Acid deposition

Site	Critical load keq/ha/yr [1]	PC keq/ha/yr	PC % critical load
Streatley Warren SSSI	4.856	0.087	1.8

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/08/2015

Initial modelling using the ammonia screening tool version 4.5 has determined that the PCs of acid deposition from the application site are over the 20% threshold, and therefore may cause damage to features of Aston Upthorpe Downs SSSI. An in combination assessment has therefore been carried out.

There are no other farms acting in combination with this application. The PC is predicted to be less than 50% of the critical level / load significance threshold. Under Environment Agency guidelines it is therefore possible to conclude no likely damage to the site from the installation, no further assessment is required.

Table 6 – Acid deposition

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Aston Upthorpe Downs SSSI	4.856	1.335	27.5

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/08/2015

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.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Whiteshoot Farm will only have a potential impact on the LWS sites with a precautionary critical level of 1µg/m^3 if they are within 1592 metres of the emission source.

Beyond 1592 m the PC is less than 1µg/m^3 and therefore beyond this distance the PC is insignificant. In this case one LWS is beyond this distance (see table below) and therefore screens out of any further assessment.

Table 7 – LWS Assessment

Name of LWS	Distance from site (m)
Blewbury Hill	2115 m

Screening using the ammonia screening tool version 4.5 has determined that the PC on the following LWS for ammonia emissions, nitrogen deposition and

acid deposition 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 8 - Ammonia emissions

Site	Critical level ammonia µg/m^3	Predicted PC µg/m^3	PC % of critical level
Blewburton Hill LWS	3**	1.068	35.6
Chalk Pit and Lane, Blewbury	3**	1.256	41.9

** CLe 3 applied as no protected lichen or bryophytes species were found when checking Easimap layer

Table 9 – Nitrogen deposition

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Blewburton Hill LWS	15	5.545	37.0
Chalk Pit and Lane, Blewbury	15	6.525	43.5

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/08/2015

Table 10 – Acid deposition

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Blewburton Hill LWS	4.77	0.396	8.3
Chalk Pit and Lane, Blewbury	4.77	0.466	9.8
Above Lids Bottom LWS	4.76	4.178	87.8

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/08/2015

Sites where detailed modelling was required

Initial modelling using the ammonia screening tool version 4.5 has determined that the PCs of ammonia and N deposition from the application site are predicted to be more than 50% of the Critical Level or Load at Aston Upthorpe Downs SSSI and more than 100% of the Critical Level or Load at Above Lids Bottom LWS. It is not possible to conclude no damage.

Table 11 – Ammonia emissions

Site	Ammonia Cle (µg/m^3)	PC (µg/m^3)	PC % critical level
Aston Upthorpe Downs SSSI	3*	3.598	119.9
Above Lids Bottom LWS	3**	11.262	375.4

* Natural England advised that a CLe of 3 for ammonia should be applied across the Aston Upthorpe Downs SSSI (August 2011)
** CLe 3 applied as no protected lichen or bryophytes species were found when checking Easimap layer

Table 12 – Nitrogen deposition

Site	Critical load kg N/ha/yr [1]	PC kg N/ha/yr	PC % critical load
Aston Upthorpe Downs SSSI	15	18.686	124.6
Above Lids Bottom LWS	15	58.494	390.0

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 12/08/2015

Detailed modelling was submitted by the applicant, which was conducted by AS Modelling and Data using ADMS 5.1 (report dated 13/09/2015).

At closer parts of Above Lids Bottom LWS, the modelling predicts that the maximum annual mean ammonia concentration is currently in excess of 50% of Critical Level of 3.0 µg NH_3/m^3 and the annual nitrogen deposition rate is in excess of 50% of the Critical Load of 15 kg N/ha/yr. The area covered by the predicted exceedances is approximately 1.5 ha. Under the proposed scenario, the predicted exceedances are slightly greater and the area of exceedance is approximately 2.5 ha. There are no predicted exceedances of 100% of the Critical Level or Critical Load.

At closer parts of Aston Upthorpe Downs SSSI, the modelling predicts that the maximum annual mean ammonia concentration is currently slightly in excess of 20% of Critical Level of 3.0 µg NH_3/m^3 and the annual nitrogen deposition rate is in excess of 50% of the Critical Load of 15 kg N/ha/yr. The area covered by the predicted exceedances is approximately 5.5 ha. Under the proposed scenario, the predicted exceedances are slightly greater and the area of exceedance is approximately 8.0 ha. There are no predicted exceedances of 50% of the Critical Level or Critical Load at the SSSI.

Further information was reviewed for Above Lids Bottom LWS which confirmed that there was no knowledge of receptors sensitive to nitrogen/ammonia. The site specific emission factor also required confirmation and the operator's calculations were duly accepted as appropriate

The ammonia modelling assessment has been audited in detail by our Air Quality Modelling and Assessment Unit and we have confidence that we can agree with the report conclusions.

Annex 1: decision checklist
This document should be read in conjunction with the Duly Making checklist, the application and 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	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.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
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. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary. Two plans are included in the permit. The first shows the installation boundary in green, the second is a smaller scale plan that shows the layout of the pig houses, surrounding equipment and site drainage.	✓
Site condition report	The operator has provided a description of the condition of the site. 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).	✓
Biodiversity, Heritage, Landscape	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.	✓

Aspect considered	Justification / Detail	Criteria met Yes
and Nature Conservation	There are 2 Special Areas of Conservation within 10 km of the site, 3 Sites of Special Scientific Interest within 5 km of the site and 4 Local Wildlife Sites within 2 km of the site. 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 sites. We have not formally consulted on the application. The decision was taken in accordance with our guidance. Habitats Directive Sites - An Appendix 11 was completed and sent to Natural England for Information Only. CRoW Sites – The application is deemed to have no likely significant impact upon the relevant sites. In line with our guidance no Appendix 4 was completed. More information is provided in the Key Issues section above.	
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. These may be horizontal or vertical BREFs. The facility meets BAT in the following ways: • Fully slatted buildings with bungs for releasing slurry. • A covered slurry lagoon with leak detection. • Bunded and collision-protected feed storage containers • Emergency generator on site in case of power failure. • Water supplied by nipple drinkers to minimise wastage. • Carcasses stored in covered containers before being sent for incineration by approved contractor. The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in	✓

Aspect considered	Justification / Detail	Criteria met Yes
	the SGN EPR 6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.	
The permit conditions		
Incorporating the application	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. These descriptions are specified in the Operating Techniques table in the permit.	✓
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

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process. (Newspaper advertising is only carried out for certain application types, in line with our guidance.)

Response received from
Public Health England – 01/02/2016
Brief summary of issues raised
PHE notes that the installation has the potential to cause pollution such as fugitive emissions and pollution to ground and surface water. There is also a potential for nuisance in the form of odour. There are no sensitive receptors within 400m but due to the increase in the number of livestock there should be a system in place which includes a process for identifying and mitigating the source of any odour following substantiated complaints. Due to the rural nature of the location there are unlikely to be significant public health concerns providing the facility is well managed and regulated.
Summary of actions taken or show how this has been covered
Risk assessments included with the application have been assessed and considered appropriate for management of the facility. The permit includes conditions that require management plans to be submitted for noise and/ or odour if activities are giving rise to pollution.

Response received from
Environmental Health (Vale of White Horse District Council) 07/01/2016
Brief summary of issues raised
No records of any complaints relating to these premises, no knowledge of environmental issues at this location.
Summary of actions taken or show how this has been covered
Risk assessments included with the application have been assessed and considered appropriate for management of the facility. The permit includes conditions that require management plans to be submitted for noise and/ or odour if activities are giving rise to pollution.

No responses

The following statutory consultees were also contacted but no response was received.

Director of Public Health
Food Standards Agency
Health and Safety Executive

No comments were received in response to web publicising.