Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for **Hill Farm** Pig Unit operated by **Wayland Farms Limited**

The permit number is **EPR/WP3733WP**

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

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

Key issues of the decision

Introduction

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 Industrial Emissions Directive (IED).

This permit implements the requirements of the EU Directive on Industrial Emissions.

Environmental Impacts

Ammonia Emissions

There are multiple European statutory sites within the relevant screening distance 10km of the installation boundary ; Breckland Special Protection Area (SPA) /Special Area of Conservation (SAC) and Norfolk Valley Fens SAC . There are six Sites of Special Scientific Interest within 5 km screening criteria.

There are four Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation ; all of these are Local Wildlife Sites

Ammonia Assessment – SAC / SPA / Ramsar sites

The following trigger thresholds have been designated for assessment of European sites including Ramsar 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 overlapping in combination assessment will be completed where existing farms are identified within 10km of the nearest point of the nature conservation site to the farm

Screening using the detailed modelling has determined that the Process Contribution (PC) on the SAC/SPA/Ramsar sites for ammonia, acid and N deposition from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect.
The data is based on our Ammonia Screening Tool AST v.4.4 (report dated 08/06/15).

See results below:

A precautionary level of 1µg/m^3 for Critical Level for ammonia has been used during the screen for the Breckland SAC site.

Screening indicates that beyond **5714 m** distance, the Process Contribution at conservation sites is less than 4 % of the 1µg/m3 critical level for ammonia. In this case the SAC below in Table 1 is beyond this distance.

Table 1– Distance from source

Site	Distance (m)
Breckland SAC	6,866

The PC for ammonia at this site has been screened as insignificant. It is therefore possible to conclude that no significant pollution will occur at this site and no further assessment is required.
Where a CLe of 1µg/m^3 is used, and the process contribution is assessed to be less than the 4 % insignificance threshold in this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.
Note
Breckland SPA is assessed as a distance of 4,419 metres from the installation and as such does not screen out based on distance criteria.

Other European Sites

Table 2 – Ammonia Emissions

Site	Critical Level Ammonia µg/m^3	Predicted Process Contribution µg/m^3	% of Critical Level
Breckland SPA	3 (1)	0.064	2.1

(1) The Critical Level of 3µg/m^3 has been used, taken from APIS website (www.apis.ac.uk) – July 2014

The process contribution for Breckland SPA is less than 4 % of relevant critical level and as such assessed as insignificant

(2) Bryophytes considered integral component of designation. Sensitive species recorded on this site. *Appropriate critical level = 1 µg/m^3*

The process contributions are less than 4 % of relevant critical loads and as such assessed as insignificant for Breckland SPA.

Therefore no further assessment is necessary for Breckland SPA.

Table 3 – Nitrogen deposition

Site	Critical Load kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Breckland SPA	10	0.330	3.3

Critical load values taken from APIS website (www.apis.ac.uk) – July 2014 for North Valley Ferns SAC and May 2015 for Breckland SPA. the most appropriate habitat CLo for the SPA is dwarf shrub heath for which a CLo of 10 µg/m^3 is recommended.

The process contributions are less than 4 % of relevant critical loads and as such assessed as insignificant for Breckland SPA.

Therefore no further assessment is necessary for Breckland SPA.

Table 4 – Acid Deposition

Site	Critical Load keq /ha/yr	PC Keq/ha/yr	PC % Critical Load
Breckland SPA	0.536	0.024	2.4
Norfolk Valley Fens SAC	0.899	0.045	5.0

Critical load values taken from APIS website (www.apis.ac.uk) – July 2014

The process contributions are less than 4 % of relevant critical loads and as such assessed as insignificant for Breckland SPA.

Therefore no further assessment is necessary for Breckland SPA.

Sites screening out using detailed modelling supplied by operator

For the following site this farm has been screened out, as set out above, using results of the detailed modelling supplied by the applicant as part of the application.
The operator has submitted detailed modelling with their application, because pre-application screening indicated a process contribution > 4% and potential for farms acting in combination. Modelling has been completed with ADMS Version 5. We have audited their modelling and accepted the report conclusions as accurate. The operator has utilised five years of meteorological data. The critical levels and loads have been selected based on our pre-application report and precautionary values based on ecology of the wildlife sites (details provided below).
The modelling report is dated October 2014.

Table 5 - Ammonia Emissions

Site	Critical Level (CLe) Ammonia µg/m^3	PC µg/m^3	PC % Critical Level
Norfolk Valley Fens SAC	1*	0.039 *	3.9

* CLe - 1µg/m^3 applied from our pre-application report.

* Process contribution is the maximum figure for all of the modelling runs at various receptor locations.

The process contribution is assessed as < 4 % threshold of critical level and therefore acceptable to be permitted.
Where a CLe of 1µg/m^3 is used, and the process contribution is assessed to be less than the 4 % insignificance threshold in this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification process contributions against Critical Load values.

Therefore no further assessment is required.

Ammonia Assessment – SSSIs

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 in-combination assessment and/or detailed modelling may be required.

Our screening assessment dated 08/06/15 indicated that the PCs for the following SSSIs are predicted to be less than 20% CLe/CLo for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the ammonia screening tool v4.4 are given in the tables below.

A precautionary CLe of 1µg/m^3 for ammonia has been used during the screen.

Screening indicates that beyond **2,209m** distance, the PC at SSSIs is less than 20 % of the 1µg/m^3 critical level for ammonia. In this case the SSSIs below in Table 6 are beyond this distance.

TABLE 6– distance from source

Site	Distance (m)
Broughton Farm	2,248
Foulden Common	2,969
Breckland Forest	4,775
The Brinks, Northwold	4,567
Breckland Farmland	4,422
Wretton	2,907

The PCs for ammonia at these sites has been screened as insignificant. It is therefore possible to conclude that no significant pollution will occur at these sites and no further assessment is required.
Where a CLe of 1µg/m^3 is used, and the PC is assessed to be less than the 20% insignificance threshold in this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values. In these cases the 1µg/m^3 level used has not been confirmed, but it is precautionary.

Ammonia assessment - LWS/AW/LNR.

There are four Local Wildlife Sites (LWS) within 2 km of this 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.

For the following sites this farm has been screened out, as set out above, using results of the AST 4.4 dated 08/06/15. The PCs on the LWSs for ammonia, acid and Nitrogen deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect.

A precautionary CLe of 1µg/m^3 for ammonia has been used during the screen.

Screening indicates that beyond **862m** distance, the PC at conservation sites is less than 100 % of the 1µg/m^3 critical level for ammonia. In this case the other conservation sites below in Table 7 are beyond this distance.

Table 7 – Distance from Source

Site	Distance (m)
Cut off Channel (Northwold)	1,212
River Wissey	1,755
Pasture@ White House Farm	1,529
South East of White House Farm	1,538

Conclusion
The PCs for ammonia at these sites has been screened as insignificant. It is therefore possible to conclude that no significant pollution will occur at these sites and no further assessment is required.
Where a CLe of 1µg/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 Acidification Critical Load values. In these cases the 1µg/m^3 level used has not been confirmed, but it is precautionary.

Groundwater and soil monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain condition 3.1.3 relating to 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 the 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 your 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 is dated June 2015 within the application duly making responses.

It includes completion of H5 template plus an installation boundary with locations of farm buildings, drains, diesel tank and dirty water tank.
The surrounding land is predominantly used for arable and grass farming. There are some small villages in the area.

The site itself is relatively flat or gently undulating, positioned the top of a small rise. Historically the land has been used for arable farming production.

The nearest surface water course is 500 metres to River Wissey to the North of the installation.

Our technical review of this specific land usage is as follows.

- There is no record of installation area land contamination.
- There is no record of any usage of the installation area except for agricultural usage.
- The site is not within a Source Protection Zone.

Therefore the conclusion is there is a low risk of historic groundwater and land contamination due to former activities within installation boundary.

Therefore, although condition 3.1.3 is included in the permit, no groundwater monitoring will be required at this installation as a result.

Odour

There are multiple sensitive receptors within 400 metres of the installation and therefore an odour management plan has been prepared. These consist of residential properties as follows:

The installation is approximately 10 acres in size. The proposed installation is approximately 250 metres South East of the village of Whittington Hill. The nearest 2 sensitive receptors are located within 100 metres North West and 2 sensitive receptors North East are located within 100 metres from the unit. There are 3 receptors between the installation and the edge of the village of Whittington Hill which is 250 metres away.

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There is no history of odour complaints from local residents linked to the existing pig facility.

An Odour Management Plan has been submitted with this application. The OMP was updated in the duly making response providing more details of locations of sensitive receptors, contingency plans and complaint procedures.

The OMP covers feed selection, feed storage and containment, ventilation design, techniques to manage loading pigs onto wagons to minimise odour, wash down and slurry storage management.

Noise

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The operator has hence provided a noise management plan in appendix 7 of their supplementary application information
Operations with the most potential to cause noise nuisance have been assessed as those involving pig loading , farm building ventilation fans, delivery of supplies and materials plus automated feed lines.
The noise management plan covers control measures for each of these potential noise hazards.

The unit operates between 06:30 and 16:30 hours with deliveries limited and lorry movements on the opposite side of the installation from the closest sensitive receptors.

There is no history of noise complaints linked to the existing pig farm below EPR scheduled activity threshold.

Overall there is the potential for noise from the installation beyond the installation boundary. However the risk of noise beyond the installation boundary is considered insignificant.

Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met Yes
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. The application was sent for consultation with • Public Health England and Director of Public Health • King's Lynn and West Norfolk District Borough Council Environmental Health department • HSE	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. No consultations comments were received. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application. This permit meets IED requirements. This permit implements the requirements of the EU Directive on Industrial Emissions. See key issues section above for further information.	✓
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. This plan was finalised with the duly making response. 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	The operator has provided a description of the condition of the site. We consider this description is satisfactory. Please refer to key issues, section 'Groundwater and soil monitoring'. As a result of further assessment, baseline data is not required. 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 and Nature Conservation	The application is within the relevant screening distance criteria of a number of conservation sites. The key issues section provides a list of these sites. In addition an ammonia emissions review is included in key issues section of this document. In conclusion installation environmental impacts on the surrounding habitat sites are considered not significant. An Appendix 11 dated 16/06/15 has been sent to Natural England for information only.	✓
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. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.	✓

Aspect considered	Justification / Detail	Criteria met Yes
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The operator has confirmed that all farm facilities and operating techniques will be in compliance with our sector guidance EPR 6.09. **The Operator has proposed the following techniques:** • Feed selection is carefully selected with reference to pigs' growth curve. Phosphorous and protein levels are reduced over the growing period. • All pig buildings will be well insulated for optimum animal health and the houses will use high velocity extraction fans to optimise odour dispersion. The finishing rooms will be thoroughly washed and disinfected between batches. • Housing; fully slatted buildings and straw based solid floor buildings. • Slurry management: installation has 6 months slurry storage capacity in compliance with being within a Nitrate Vulnerable Zone. • Fugitive Emission controls include building maintenance, routine building wash downs, use of automatic auger feed transfer to minimise spillages. Feed is stored within enclosed feed bins. • Storage facilities: there is one 1500 litre diesel tank which is bunded. • Roof water is transferred to on-site soak aways; there is no discharge to off-site surface water The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR 6.09 and we consider them to represent appropriate techniques for the facility. The one exception is the existing slurry storage which was utilised for existing non-permitted farm and will be utilised for the new installation. The operator has confirmed that the slurry storage facilities includes an existing 390 m2 surface area storage facility and a new 390 m2 surface area storage facility The existing storage itself is not currently covered, which is a requirement under our guidance EPR 6.09 and operator has committed to cover by 2020. In line with our guidance for existing facilities an improvement programme is allowed for this situation (IC1 included within the permit). The operator has committed to covering the facility with a solid cover. The new storage facility will be designed complete with a solid cover. 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 (EMS)	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 applicant has chosen to utilise their own management system without external certification. The supporting information section 3c gives the detail of their EMS covering normal operation, maintenance schedules and records, incidents and abnormal operations, complaints system, training and provision of competent staff plus site security.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	The accident management plan is currently being prepared to allow completion prior to facility operation above EPR scheduled activity threshold. 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 : 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.

We have not received any comments of concern from the consultation or web publication process. Director of Public Health response dated 6th July 2015 confirmed no areas of concern.

This proposal was also publicised on the Environment Agency's website for 4 weeks but no representations were received during this period.