

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for **Wicklewood Farm Poultry Unit** operated by **Traditional Norfolk Poultry Limited**.

The permit number is **EPR/GP3633RB**.

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

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 is one European statutory site within the relevant screening distance 10km of the installation boundary. There are two Sites of Special Scientific Interest within 5 km screening criteria.

There are twelve Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation.

**The assessment below concludes that the installation impacts on all of the relevant conservation sites within screening distances screens out as having insignificant environmental impacts on the basis of our Ammonia Screening Tool AST v.4.4 assessment , except for impacts on Falstoffs Wood LWS which screens out as having insignificant environmental impacts after a detailed modelling assessment.**

### 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 application.

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 03/06/15) with broiler numbers adjusted to actual application figure of 73,000.***

See results below:

A precautionary level of  $1\mu\text{g}/\text{m}^3$  for Critical Level for ammonia has been used during the screen for the SAC site.

Screening indicates that beyond **2539 m** distance, the Process Contribution at conservation sites is less than 4 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the conservation sites below in Table 1 are beyond this distance.

**Table 1 – Distance from source**

Site	Distance (m)
Norfolk Valley Fen SAC	3,901

**On the basis of distances above there is no further requirement for assessment as installation impacts on these conservation sites are concluded to have no likely significant effect.**

Where a CLe of  $1\mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than the 4 % insignificance threshold in these circumstances it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.

### **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 03/06/15 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  $1\mu\text{g}/\text{m}^3$  for ammonia has been used during the screen.

Screening indicates that beyond **1,018 m** distance, the PC at SSSIs is less than 20 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the SSSIs below in Table 2 are beyond this distance.

**TABLE 2 – distance from source**

Site	Distance (m)
Sea Mere Hingham SSSI.	4,355
Coston Fen Runhall SSSI.	3,901

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  $1\mu\text{g}/\text{m}^3$  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  $1\mu\text{g}/\text{m}^3$  level used has not been confirmed, but it is precautionary.

### **Ammonia assessment - LWS/AW/LNR.**

There are eleven Local Wildlife Sites (LWS) and one Ancient Woodland 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 03/06/15. 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  $1\mu\text{g}/\text{m}^3$  for ammonia has been used during the screen.

Screening indicates that beyond **412 m** distance, the PC at conservation sites is less than 100 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case two of the other conservation sites below in Table 3 are beyond this distance.

**Table 3 – Distance from Source**

Site	Distance (m)
Little Profit LWS	1,316
New Wood LWS	530
Big Wood Meadow LWS	1,503
Crownthorpe Carr LWS	1,425
Kimberly Lake LWS	1,383
Mere LWS	1,764
Groundsel Wood LWS	1,104
Reed Meadow LWS	1,658
Wymondham Plantation LWS	2,000
Groundsel Wood AW	1,131

### **Conclusion**

The PCs for ammonia at all the above other conservation sites have 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  $1\mu\text{g}/\text{m}^3$  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 Acidification Critical Load values.

#### **Ammonia assessment - Other conservation sites**

For the following sites this installation has been screened out, using ASTv4.4 except where stated below. The predicted PC on the LWS/AW 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, except where stated below.

**Table 4 - Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Alma Plantation LWS	3(a)	1.517	50.6
Falstoff's Wood LWS	1 (b)	1.316	<b>131.6</b>

(a) CLe 3 applied as taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 03/06/2015 for broadleaved woodland

(b) CLe 1 applied as taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 03/06/2015 based on threatened bryophyte species.

**Table 5 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Alma Plantation LWS	10*	7.877	78.8
Falstoff's Wood LWS	10*	6.833	68.3

\*\* Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 03/06/2015

**Table 6 – Acid deposition**

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Alma Plantation LWS	10.98 **	0.563	5.1
Falstoff's Wood LWS	10.98 **	0.488	4.4

\*\* Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 03/06/2015

**No further assessment is required except for Ammonia emissions impact for Falstoff's Wood LWS.**

#### **Sites screening out using detailed modelling supplied by applicant**

For the following site this farm has been screened out, based on the criteria as set out above, using results of the detailed modelling supplied by the applicant as part of the application.

The applicant has submitted detailed modelling with their application for ammonia emissions impact for Falstoff's Wood LWS.

Modelling has been completed with ADMS Version 5. We have audited their modelling and accepted the report conclusions as accurate. The applicant 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 June 2015.

**Table 7 - Ammonia Emissions**

Site	Critical Level (CLe) Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
Falstoff's Wood LWS	1	* 0.372	37.2

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

The process contribution is assessed as < 100 % threshold of critical level and therefore acceptable to be permitted.

**Therefore no further assessment is required.**

## 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 applicant 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 applicant** 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 within the application supplementary information; report dated June 2015.

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. The site is close to Wicklewood Village.

The poultry houses on site are existing buildings within the installation boundary with four out of eight undergoing refurbishment.

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

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/poultry farming. Moy Park Limited had a permit for a similar broiler farm permitted installation issued in 2007 and surrendered in 2009; permit EPR/KP3934MK. We accepted the surrender on the basis of the land being returned to a satisfactory state without ground and land contamination.
- The site is not within a Groundwater Safeguard Zone or Flooding 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 at this time.**

## Odour

There are sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). Specifically the closest sensitive receptor is 95 metres from the installation boundary.

Therefore an Odour Management Plan is required under our guidance.

The applicant has completed an Odour Management Plan (OMP) within application supplementary application including a list of sensitive receptors within 400 m of the installation boundary, an assessment of feed and litter management plus ventilation controls and poultry building design to minimise the risk of odour pollution beyond the installation boundary.

Further the OMP covers building clean out and spent litter removal procedures plus a contingency plan to minimise the risk of odour pollution linked to abnormal installation activities including issues linked to diet and a complaints procedure.

The final version of the OMP was submitted by the applicant as a duly making response. It includes further improvements including minimising time for poultry house cleanout and adding a tour of site installation boundary to act as alert to elevated odour levels to ensure appropriate measures taken to minimise risk of odour pollution beyond the installation boundary

We have carried a review and confirm we do not have any historic odour complaints linked to this site.

Overall there is a potential risk of odour pollution beyond the installation boundary but this is considered not significant, based on the OMP submitted. We approve the OMP based on the information provided within this application.

## Noise

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The applicant has hence provided a noise management plan (NMP) in their supplementary application information. This was updated in an additional information response dated 22/09/15 with addition of certain time restrictions as detailed below.

Operations with the most potential to cause noise nuisance have been assessed as those involving ventilation fans, biomass boiler flue, feed deliveries, feeding systems and broiler catching, building clean outs, noise emissions from the standby generator, poultry loading, delivery of supplies and materials plus automated feed lines.

Time restrictions, during normal day time hours, have been set for activities such as feed deliveries and waste removal to minimise risk of noise pollution beyond installation boundary.

We have carried a review and confirm we do not have any historic noise complaints linked to this site

Overall there is a potential risk of noise pollution beyond the installation boundary but this is considered not significant, based on the NMP submitted.

## Biomass Boilers

The application includes for two biomass boilers with total thermal input capacity **0.445 MW**.

The Environment Agency has assessed the pollution risks and has concluded that air emissions from small biomass boilers are not likely to pose a significant risk to the environment or human health providing certain conditions are met. Therefore a quantitative assessment of air emissions will not be required for poultry sites where:

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;

For poultry:

- A. the aggregate net rated thermal input is less than 0.5MW<sub>th</sub>, or:
- B. the aggregate boiler net rated thermal input is less than or equal to 4 MW<sub>th</sub>, and no individual boiler has a thermal input greater than 1 MW<sub>th</sub>, and;
  - the stack height must be a minimum of 5 meters above the ground (where there are buildings within 25 meters the stack height must be greater than 1 meter above the roof level of buildings within 25 meters) and;
  - there are no sensitive receptors within 50 meters of the emission points

This is in line with the Environment Agency's document "Air Quality and Modelling Unit C1127a Biomass firing boilers for intensive poultry rearing", an assessment has been undertaken to consider the proposed addition of the biomass boilers.

The Environment Agency's risk assessment has shown that the biomass boilers do fully meet the requirements of criteria **A above**.

## 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
<b>Receipt of submission</b>		
Confidential information	A claim for commercial or industrial confidentiality has not been made	✓
<b>Consultation</b>		
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>The application was sent for consultation with</p> <ul style="list-style-type: none"> <li>• South Norfolk District Council Environmental Health department.</li> <li>• HSE.</li> <li>• Public Health – based on sensitive receptors within 100 metres of the installation boundary.</li> </ul>	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>One consultation response was received from Public Health England dated 25/09/15. The decision was taken in accordance with our guidance.</p>	✓
<b>Applicant</b>		
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 applicant.	✓
<b>European Directives</b>		
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.	✓
<b>The site</b>		
Extent of the site of the facility	The applicant 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 applicant is required to carry on the permitted activities within the site boundary.	✓
Site condition report	<p>The applicant 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.</p> <p>The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED – guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>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.</p> <p>In conclusion installation environmental impacts on the surrounding habitat sites are considered not significant. An Appendix 11 has been sent for information only for the European Site - Norfolk Valley Fen SAC.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the applicant's assessment of the environmental risk from the facility. The applicant's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.</p>	✓
Operating techniques	We have reviewed the techniques used by the applicant and compared these with the relevant guidance notes.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>The applicant has confirmed that all farm facilities and operating techniques will be in compliance with our sector guidance EPR 6.09.</p> <p><b><u>The Applicant has proposed the following techniques:</u></b></p> <ul style="list-style-type: none"> <li>• Feed selection is carefully selected with reference to the poultry growth curve. Phosphorous and protein levels are reduced over the growing period.</li> <li>• All poultry buildings will be well insulated for optimum animal health and the houses will use high velocity extraction fans to optimise odour dispersion.</li> <li>• Fugitive Emission controls include building maintenance, routine building clean downs, separate clean and dirty water drainage systems. Feed is stored within enclosed feed bins.</li> <li>• Storage facilities: there is one 1200 litre working volume diesel tank which is bunded.</li> <li>• Roof water is transferred to on-site French drain soak aways, which can discharge during storm conditions to an off-site surface water course that flows into Kimberly Lake.</li> <li>• Biomass boiler usage – with operating techniques as per application supporting information with maximum virgin wood storage capacity at one time of 100 tonnes.</li> <li>• Emergency procedures for the installation (within request for information response dated 07/09/15 with an additional site Environmental risk assessment) including steps to minimise risk of fires linked to usage of biomass boilers and actions in the event of such a fire.</li> </ul> <p>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.</p> <p>The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.</p>	
<b>The permit conditions</b>		
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.	✓
<b>Applicant Competence</b>		
Environment management system (EMS)	<p>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.</p> <p>The supporting information 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.</p> <p>The accident management plan is currently being prepared to allow completion prior to facility operation above EPR scheduled activity threshold.</p> <p>The decision was taken in accordance with RGN 5 on Operator Competence.</p>	✓
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The applicant satisfies the criteria in RGN 5 on Operator Competence.	✓
Financial provision	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.</p> <p>The decision was taken in accordance with RGN 5 on Operator Competence.</p>	✓

## **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.

Public Health England submitted a consultation response dated 25/09/15. In conclusion they had no significant concerns linked to the application.

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