

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for Gillow Farm Poultry Unit operated by Mr Philip Watkins and Mr Gareth Watkins.

The permit number is EPR/AP3232AV.

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

### 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. 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 Gillow Farm Poultry Unit (dated 05 May 2015) 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.**

## Ammonia emissions

There are 4 Special Areas of Conservation (SAC) sites 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 9 Local Wildlife Sites (LWS) and Ancient Woodlands (AW) within 2 km of the installation.

### Ammonia assessment – SAC sites

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

1. 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.
2. 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 ammonia screening tool (version 4.4) has indicated that emissions from Gillow Farm Poultry Unit will only have a potential impact on sites with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 2704 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $1 \mu\text{g}/\text{m}^3$ .  $1 \mu\text{g}/\text{m}^3$  is 40% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. In this case all 2 SACs are beyond this distance.

**Table 1 – distance from source**

Site	Distance (m)
River Wye (England)	9,517
River Wye (Wales)	9,517

The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

Screening using the ammonia screening tool (version 4.4) has determined that the PC on the SAC 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.

**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
River Wye (England)	3	0.043	1.4
River Wye (Wales)	3	0.043	1.4

The River Wye SAC covers a large area and many of its sensitive sections may not be appropriate for all assessments. As described above, over 2,704 m, we consider ammonia emissions as insignificant. The section of the river (355048, 228034 - 355458, 227603) is the only part which does not screen out at the distance criteria.

APIS specifies that a CLe  $1 \mu\text{g}/\text{m}^3$  is required at transition mire and quaking bog habitats. Other habitats specified require a CLe  $3 \mu\text{g}/\text{m}^3$ . The area specified between the grid references; the river and associated land is comprised of deciduous woodlands and arable farming fields. Consultation with Natural England revealed that this area is more at risk from aquatic

sources of nitrogen. Natural England confirmed that a CLe  $3 \mu\text{g}/\text{m}^3$  would be appropriate at this section of the river.

**Table 3 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
River Wye (England)	10	0.221	2.2
River Wye (Wales)	10	0.221	2.2

Note [1] Critical load values taken from Air Pollution Information System (APIS) website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 07 July 2015. The designated area does include associated land along the banks of the river which are predominantly a woodland habitat. We have applied critical loads for nitrogen deposition and acid deposition based the adjacent bank side habitat: 'Broadleaved, Mixed and Yew Woodland'.

**Table 4 – Acid deposition**

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
River Wye (England)	1.69	0.016	0.9
River Wye (Wales)	1.69	0.016	0.9

Note [1] (above) Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 07 July 2015.

No further assessment is necessary.

#### 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.

Screening using ammonia screening tool (version 4.4) has indicated that emissions from Gillow Farm Farm Poultry Unit will only have a potential impact on sites with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 927 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $1 \mu\text{g}/\text{m}^3$ .  $1 \mu\text{g}/\text{m}^3$  is 20% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. In this case the below SSSI is beyond this distance.

**Table 5 – distance from source**

Site	Distance (m)
River Wye	2,599

The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

## Ammonia assessment – LWS and AW

There are 11 Local Wildlife Sites and Ancient Woodlands within 2 km of Gillow Farm Poultry Unit. 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 at stage 1, as set out above, using results of the ammonia screening tool (version 4.4).

Screening using ammonia screening tool (version 4.4) has indicated that emissions from Gillow Farm Poultry Unit will only have a potential impact on sites with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 318 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $1 \mu\text{g}/\text{m}^3$ .  $1 \mu\text{g}/\text{m}^3$  is 100% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. In this case 7 LWS and AW are beyond this distance.

**Table 6 – distance from source**

<b>Site</b>	<b>Distance (m)</b>
Pengethley Grove LWS	1,001
Four Ponds Near the Marsh LWS	2,059
Wells Brook LWS	2,020
Riggs Wood LWS	1,956
Pengethley grove AW	1,029
Harewood End AW	659
Riggs Wood AW	1,956

The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

For the following site, this farm has been screened out, using the ammonia screening tool (version 4.4). The predicted PC on the 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.

**Table 7 - Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Seymours Wood AW	3*	1.314	43.8

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

**Table 8 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Seymours Wood AW	10*	6.827	68.3

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

**Table 9 – Acid deposition**

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Seymours Wood AW	1.19	0.488	41

Note [1] Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 03 June 2015

No further assessment is required.

For the following sites 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 (Document reference: 'An Ammonia Concentration & Deposition Study for the Proposed Poultry Rearing houses at Gillow Farm, near St Owens Cross in Herefordshire' 05 May 2015).

Detailed modelling provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU).

**Table 10 - Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Tuft Wood AW (receptor 7 in report)	3	1.251	41.699
Tuft Wood AW (receptor 8 in report)	3	0.759	25.298

We have assigned a CLe 3 to the Ancient Woodland as no protected lichen or bryophytes species were found at Tuft Wood AW when checking easimap layer.

**Table 11 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Tuft Wood AW (receptor 7 in report)	10	9.746	97.462
Tuft Wood AW (receptor 8 in report)	10	5.913	59.129

Note [1] Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 05 May 2015

The applicant predicts a process contribution of 97% of the nutrient nitrogen CLo 10kg N/ha/yr at Tufts Wood Local Wildlife Site. Research carried out by Cambridge Environmental Research Consultants of their model ADMS indicates model uncertainty in the range of 0.7 to 1.3 of predicted values. AQMAU's sensitivity analysis indicates that this falls within the centre of the modelling uncertainties and straddles the CLo. Given the expected uncertainties in modelling predictions we do not have confidence that an exceedance will be likely from the proposed activity; nor can we rule out an exceedance as a worst case. This uncertainty range is standard for ADMS 5.0, therefore it would be unreasonable to assume that an exceedance of the CLo would be likely. In this case we have confidence that 97% of the CLo at Tuft Wood is reasonably representative and can be used for the basis of permit determination. This figure is below the threshold. No further assessment is necessary.

The operator's modelling report does not contain any evidence that the impact from acid deposition has been considered. However, AQMAU, after performing sensitivity analysis concluded that there is a low risk of the ammonia emitted from the site resulting in an exceedance to the 100% threshold for acid deposition.

No further assessment for these sites is required.

## 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
<b>Consultation</b>		
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.	✓
<b>Operator</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 operator.	✓
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application.  The Industrial Emissions Directive.	✓
<b>The site</b>		
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.	✓



Aspect considered	Justification / Detail	Criteria met
		Yes
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>Former use of permitted area was arable farming and grazing land. No evidence of former pollution.</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 site 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>Formal consultation has been carried out with Natural England. The consultation responses (Annex 2) were taken into account in the permitting decision.</p> <p>An Appendix 11 has been sent to Natural England for information purposes only.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
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>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant. See Key issues for further information.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Environmental risk	<p>We have carried out a risk assessment on behalf of the operator.</p> <p>See key issues for further details.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator 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.</p>	✓
<b>The permit conditions</b>		
Raw materials	We have specified limits and controls on the use of raw materials and fuels.	✓
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>	✓
<b>Operator Competence</b>		
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	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
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

### Natural England

Response received on 03 July 2015 from Natural England
<b>Brief summary of issues raised</b> At the request of the Environment Agency, enquiries were made to Natural England to seek advice on assigning a critical level for ammonia emissions at the River Wye SAC. Natural England advised upon a critical level of 3 µg/m <sup>3</sup> .  Natural England also highlighted the impact of surface run-off to the nearby stream, the Gamber and Garren.
<b>Summary of actions taken or show how this has been covered</b> We accepted Natural England's advice and used this critical level in determining the impact of ammonia emissions from the farm upon a specific section of the River Wye SAC. This is further described in Key Issues in the section on Ammonia Emissions.  There will be no surface run off of any contaminated waters. All process water from the poultry houses and lightly contaminated surface waters are collected in dirty water tanks. Dirty water tanks are constructed to BAT standards.

### Reponses not received

The Health and Safety Executive (HSE), Local Authority Environmental Health and local authority planning department were also consulted; however, consultation responses from these parties were not received.

No public comments were received in response to the web publication.