

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for Porch Farm Poultry Unit operated by HJ & JD Duthie Limited.

The permit number is EPR/KP3135AX/A001

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

### Ammonia Emissions

There are four Special Area of Conservation (SAC) located within 10km of the installation. There are four Sites of Special Scientific Interest (SSSI's) located within 5 km of the installation. There are three Ancients Woodlands (AW) and one Local Wildlife Site (LWS) located 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.

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 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
Wye Valley & Forest of Dean Bat Sites (Wigpool Ironstone Mine unit) (SAC)	3*	0.016	0.5
Wye Valley & Forest of Dean Bat Sites (Westbury Brook Ironstone Mine unit) (SAC)	See table 4	---	---
River Wye (SAC)	3*	0.007	0.6
Wye Valley Woodlands (SAC)	See table 4	---	---

\* CLe of 3 for ammonia applied as the SAC features are bats whose habitat is broadleaved woodland (APIS). N and acid CLo obtained from APIS.

**Table 2 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Wye Valley & Forest of Dean Bat Sites (Wigpool Ironstone Mine unit) (SAC)	10	0.081	0.8

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

**Table 3 – Acid deposition**

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Wye Valley & Forest of Dean Bat Sites (Wigpool Ironstone Mine unit) (SAC)	1.123	0.006	0.5

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

River Wye (SAC) - Critical Level - Given that beyond 5,076m sites would screen out of requiring further assessment, the only part of the River Wye SAC looked at was between SO 58555 23838 and SO 58694 25588, which is within this distance.

Natural England confirmed that the  $3\mu\text{g}/\text{m}^3$  is the most appropriate critical level for ammonia to use for the River Wye in this instance. This is due to there being no particular sensitive features on this section of the River Wye SSSI which would require the use of a lower level. In addition there are no lichen or bryophyte records on this part of the river.

Nitrogen and Acid Deposition - Even though site screens out as CLe3. it is not necessary to assess the Nitrogen and Acid deposition as there are no relevant critical loads for feature along this stretch of the River Wye. This is on the basis that the features is 'Water courses of plain to montane levels with the Ranunculus fluitantis and Callitriche-Batrachion vegetation for which there are no critical loads related to Nitrogen or Acid Deposition. In addition guidance from Natural England states The bog habitat critical loads are not relevant to this part of the designation so therefore have not been used here Therefore no further assessment is required.

### Distance screening

For the following sites this farm has been screened out at stage 1, using results of the ammonia screening tool (version 4.4).

Screening has indicated that emissions from Porch 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 5,076 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $0.04\mu\text{g}/\text{m}^3$ .  $0.04\mu\text{g}/\text{m}^3$  is 4% of the  $1\mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. Table 2 below for SAC's that are beyond this distance.

**Table 4 – distance from source**

Site	Distance (m)
Wye Valley & Forest of Dean Bat Sites (Westbury Brook Ironstone Mine unit) (SAC)	7,768
Wye Valley Woodlands (SAC)	9,873

The PC at these sites (within Table 4) has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and therefore no further assessment is required.

### Ammonia assessment - SSSI's

There are four SSSI's within the 5km distance of Porch Farm Poultry Unit: River Wye, Linton Quarry, Wigpool Ironstone Mine and Wilton Bluff, Ross-on-Wye .

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 Porch Farm Poultry Unit will only have a potential impact on SSSI's with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 2,059 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $0.2 \mu\text{g}/\text{m}^3$ .  $0.2 \mu\text{g}/\text{m}^3$  is 20% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. See Table 5 below for SSSI's that are beyond this distance.

**Table 5 - distance from source**

Site	Distance (m)
River Wye (SSSI)	3,965
Linton Quarry (SSSI)	4,241
Wigpool Ironstone Mine (SSSI)	4,505
Wilton Bluff, Ross-on-Wye (SSSI)	3,953

No further assessment is necessary.

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

There are three Ancient Woodlands (AW) and one Local Wildlife Site (LWS) and within 2 km of Porch 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 Porch 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 840 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. See Table 6 below for LWS and AW that are beyond this distance.

**Table 6 - distance from source**

Site	Distance (m)
The Fordign Lake (LSW)	1,702
Penyard Park (AW)	1,612
Checkley Wood (AW)	1,010
Rudhall Grove (AW)	1,525

No further assessment is necessary.

## **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 Industrial Emissions Directive (IED).

This permit implements the requirements of the EU 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 condition 3.1.3 relating to groundwater monitoring. However, our 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 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 (SCR) for Porch Farm Poultry Unit (06/07/15) demonstrated that the hazards to land or groundwater have been mitigated/minimised such that there is little likelihood of pollution and there is no evidence of historic contamination on site. Therefore, although this condition is included in the permit, no groundwater monitoring will be required at this installation as a result.

## **Odour Modelling**

The Operator undertook odour modelling as there are residential and commercial properties in the area surrounding the site of the poultry unit at Porch Farm, some within 100m. Excluding the farmhouse at Porch Farm, the closest residences are: Wood-fields, approximately 110m to the west-south-west; residences at Dairy Cottages, the closest of which are approximately

135m to the west-north-west and residences approximately 85m to the south and approximately 145m to the south-east.

The Operator made predictions at 28 appropriate sensitive receptors surrounding the site, and additionally over a grid centred on the site. They assessed the 98th percentile of hourly average odour concentrations at sensitive receptors against a moderately offensive odour benchmark value of  $3\text{ou}_E/\text{m}^3$  as stated in H4, which is appropriate for intensive farming.

- $1.5 \text{ou}_E/\text{m}^3$  for most offensive odours.
- $3.0 \text{ou}_E/\text{m}^3$  for moderately offensive odours.
- $6.0 \text{ou}_E/\text{m}^3$  for less offensive odours.

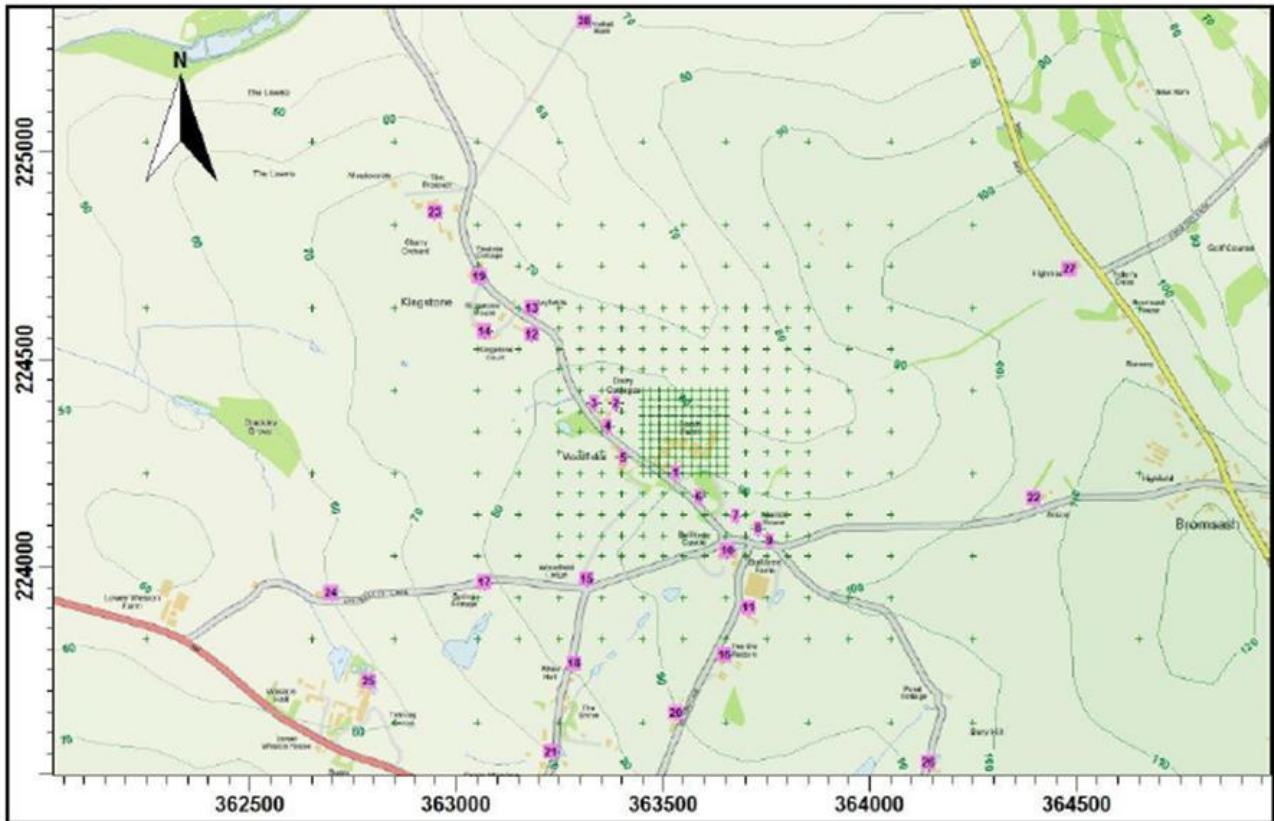
The Operator concluded that under the proposed scenario odour exposures at all of the residential receptors are below the Environment Agency's benchmark for moderately offensive odours, a 98th percentile hourly mean of  $3\text{ou}_E/\text{m}^3$  over a one year period. The Operator predicted a maximum odour concentration of  $1.95\text{ou}_E/\text{m}^3$  at the worst affected receptor (receptor 1 - 363533,224226).

We have audited the consultant's assessment using ADMS 5.1 and have made several observations relating to their methodologies and assumptions. We have undertaken some check modelling with sensitivity analysis to our observations. As a result of this we agree with the consultant's conclusion that the impacts from the proposed scenario will not cause an exceedence of the  $3\text{ou}_E/\text{m}^3$  benchmark at any receptors.

Table 1. Operators predicted maximum annual 98th percentile hourly mean odour concentrations at the discrete receptors.

Receptor number	X(m)	Y(m)	Maximum annual 98th percentile hourly mean odour concentration ( $\text{ou}_E/\text{m}^3$ )					
			Existing			Proposed		
			No calms No Terrain	Calms No Terrain	No calms Terrain	No calms No Terrain	Calms No Terrain	No calms Terrain
1	363533	224226	5.69	6.48	5.21	2.28	2.24	2.18
2	363386	224395	1.22	2.11	0.99	1.08	1.10	1.05
3	363332	224394	0.89	1.61	0.76	0.80	0.80	0.70
4	363366	224340	1.37	2.31	1.18	1.02	1.01	0.99
5	363404	224263	2.43	3.18	2.06	1.25	1.24	1.16
6	363587	224169	4.60	5.11	3.42	1.53	1.53	1.47
7	363676	224123	2.13	2.62	2.13	1.13	1.13	1.13
8	363729	224093	1.59	2.00	1.63	0.93	0.93	0.93
9	363759	224061	1.20	1.54	1.21	0.83	0.82	0.79
10	363656	224039	1.32	1.73	1.20	0.92	0.90	0.80
11	363706	223900	0.62	0.91	0.52	0.56	0.55	0.47
12	363184	224561	0.23	0.54	0.21	0.40	0.40	0.35
13	363183	224624	0.21	0.46	0.18	0.34	0.33	0.30
14	363067	224568	0.20	0.42	0.15	0.32	0.32	0.29
15	363316	223970	0.54	0.82	0.53	0.47	0.46	0.49
16	363648	223785	0.47	0.68	0.37	0.42	0.41	0.35
17	363069	223963	0.27	0.42	0.29	0.33	0.33	0.34
18	363286	223765	0.30	0.48	0.35	0.30	0.29	0.31
19	363055	224700	0.13	0.30	0.12	0.21	0.21	0.19
20	363532	223648	0.31	0.50	0.29	0.28	0.28	0.26
21	363228	223552	0.18	0.31	0.22	0.19	0.19	0.22
22	364397	224167	0.31	0.38	0.18	0.28	0.27	0.31
23	362950	224856	0.09	0.18	0.07	0.15	0.15	0.13
24	362696	223937	0.12	0.19	0.15	0.17	0.17	0.22

25	362788	223722	0.11	0.20	0.15	0.16	0.16	0.26
26	364143	223528	0.16	0.23	0.13	0.20	0.19	0.19
27	364483	224718	0.19	0.25	0.11	0.26	0.26	0.18
28	363311	225317	0.09	0.15	0.09	0.17	0.17	0.20



benchmark of  $3.0 \text{ ou}_E/\text{m}^3$  as an annual 98th percentile hourly mean are coloured blue; those in the range that UKWIR research suggests gives rise to a significant proportion of complaints,  $5.0 \text{ ou}_E/\text{m}^3$  to  $10.0 \text{ ou}_E/\text{m}^3$  as an annual 98th percentile hourly mean, are coloured red and predicted exposures likely to cause annoyance and complaint are coloured blue.

Although we do not agree with the Operators absolute numerical values, we agree that impacts at all receptors are likely to be below the odour benchmark of  $3\text{ou}_E/\text{m}^3$ .

## 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.  Refer to key issues section above for further information regarding the Industrial Emissions Directive (IED).	✓
<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.	✓
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 -	✓



Aspect considered	Justification / Detail	Criteria met
		Yes
Biodiversity, Heritage, Landscape and Nature Conservation	<p>guidance and templates (H5).</p> <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 was part of the new permit application process. We considered that the application would not affect the features of the sites. We consider that the variation will not change the impacts on the sites.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p> <p>An Appendix 4 (CROW) form detailing the impacts of the proposals on the relevant SSSI's was completed on 12/08/15 for audit purposes only. All documents are saved on EDRM. No formal consultation with NE, saved to EDRM only.</p> <p>An Appendix 11 form detailing the impacts of the proposals on the relevant SAC was completed on 12/08/15 for audit purposes only. All documents are saved on EDRM. No formal consultation with NE, sent for information purposes only.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
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	<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 SGN EPR6.09 'How to comply with your environmental permit for intensive farming (version 2)' Technical Guidance Note and we consider them to represent appropriate techniques for the facility.</p> <p>The Operator has proposed the following key techniques:</p> <ul style="list-style-type: none"> <li>• Housing design and management will be in accordance with the sector guidance note (SGN)</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>EPR6.09.</p> <ul style="list-style-type: none"> <li>• Feed selection and use will be in accordance with the sector guidance note (SGN) EPR6.09.</li> <li>• Nipple drinkers are used to reduce wastage of water and maintain dry litter;</li> <li>• All dirty water is collected in storage tanks and taken off site.</li> <li>• We consider that the operating techniques specified in the permit reflect the BAT for the installation.</li> </ul> <p>We have reviewed the techniques used by the Operator and compared these with the relevant guidance notes.</p>	
<b>The permit conditions</b>		
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	<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 decision was taken in accordance with RGN 5 on Operator Competence.</p>	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.</p>	✓
Financial provision	<p>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.</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.

Response received from
N/a
Brief summary of issues raised
N/a
Summary of actions taken or show how this has been covered
N/a

The Food Standard Agency (FSA), Herefordshire Council (Planning - Blueschool House) , Herefordshire Council (Environmental Health – Blueschool House), Health and Safety Executive (HSE), Public Health England (5 St Philips Place), Director of Public Health (Herefordshire Council – Plough Lane) and internal Ground Water & Contaminated Land team (GWCL) were consulted with. Comments for consultation ended on the 05/08/15.

The permit application was also published on the Environment Agency's website (which finished 05/08/15); no comments / representations were received during the web consultation period.