

Environment Agency permitting decisions

Substantial Variation

We have decided to issue the variation for Gorsey Place Farm operated by Mr Jonathan Hay.

The variation number is EPR/DP3634KW/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

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

Key issues of the decision

Variation type:

The applicant applied for a normal variation, however as the application increases numbers of poultry broilers from 160,000 to 310,000 and this increase is above the scheduled activity section 6.9 A (1) (a) (i) threshold of 40,000 in line with our guidance (RGN No 8) it is considered and determined as a substantial variation.

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).

Amendments have been made to the conditions of this variation and a consolidated permit has been issued, so that it now implements the requirements of the EU Directive on Industrial Emissions.

Permit Holder :

The permit was issued in error to two individuals Mr Jonathan Hay and Mr Jonty Hay , however Mr Jonty Hay and Mr Jonathan Hay are the same person. We have amended the permit holder at the request of operator.

Overview :

The operator is applying to increase the poultry broiler numbers from 160,000 to 310,000. Under the proposed expansion, the four eastern-most poultry houses would be extended, the three western-most houses would be refurbished and a new poultry house would be built on land immediately to the west of the extended houses. There is a change to the installation boundary to include a new attenuation pond situated to the east of poultry house 1 and to include the extended four eastern-most poultry houses.

The Operator has provided summary of the technical standards to support the application.

The Operator has provided an ammonia dispersion study to support the variation and to assess the impact from the increase in poultry broiler numbers on nature conservation sites.

The key permit changes are :-

- S1.1 Activities table updated for new broiler numbers.
- S1.2 Operating techniques table updated .
- S1.3 Point source emissions to air ,water and land have been updated.

We have taken the opportunity to consolidate and update the permit to modern conditions and to include the requirements of the Industrial Emissions Directive (IED).

Ammonia Assessment :

Gorsey Place Farm is within a rural setting approximately 2 km to the south-south-east of the village of Holymoorside and about 5 km south-west of Chesterfield. It is surrounded by undulating agricultural land, at an elevation of approximately 200 m on land which slopes up to the west.

There are a two Special Areas of Conservation and a special protected area within 10 km of the poultry unit. There are three Sites of Special Scientific Interest within 5 km of the poultry unit. There are nine Local Wildlife Site and seven Ancient Woodlands within 2 km of the poultry unit. They are listed below -

Table 1:- Designated Sites with appropriate distance of the Poultry Unit.

Designation	Name of site	Distance from Poultry unit
SAC	South Pennine Moors	2,600
SAC	Peak District Dales	9,100
SPA	Peak District Moors (South Pennine Moors Phase 1)	2,600
SSSI	Harewood Grange Stream Section	3,600
SSSI	Fall Hill Quarry	4,400
SSSI	Eastern Peak District Moors	2,600
LWS	Stone Edge Wood	556
LWS	Cathole Coppice & Gladwins Wood	1,100
LWS	Belland Lane Heath & Ponds	987
LWS	Moorlawn Coppice	1,000
LWS	Press Reservoirs	1,500
LWS	Great Pond of Stubbing	1,000
LWS	Pearce Wood	1,600
LWS	Birkin Lane Verge	1,300
LWS	Old Spring Wood	1,700
LWS	Robincroft & Windsor Woods	1,700
LWS	Walton Wood	1,900
LWS	Well Close Wood	1,400
Ancient Woodland	Gladwin Wood	1,000
Ancient Woodland	Old Spring Wood	1,700
Ancient Woodland	ASNW (Unnamed)	1,400
Ancient Woodland	Walton Wood	1,700
Ancient Woodland	Clayton Wood	985
Ancient Woodland	Bradbury Wood	1,600
Ancient Woodland	Ivyspring Wood	508

We have carried out a pre-application screening assessment of the proposal using our Ammonia Screening Tool AST v4.4

We concluded that detailed modelling for ammonia was required for those sites highlighted using shading in the above table. In addition an assessment of nutrient nitrogen deposition was also required for Stone Edge Wood and Ivyspring Wood.

All other designated sites have screened out and do not require any further assessment.

The applicant has submitted detailed modelling with their application. The modelling has been completed using UK Atmospheric Dispersion Modelling System (ADMS) version 5 . A weather file has been obtained which has been derived from Numerical Weather Prediction (NWP) assimilation and short term forecast fields from the UK Met Office’s mesoscale model. This data is derived for a location approximately 6 km to the south east of Gorsey Place Farm for the years 2007 – 2011.

The critical levels and loads were obtained from the pre-application report and the applicant has used the Environment Agency’s Horizontal Guidance Note H1, Annex (b) (Intensive Farming).

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.

Detailed modelling [reference ‘An Ammonia Dispersion Study for the Proposed Expanded Poultry Unit at Gorsey Place Farm, near Chesterfield in Derbyshire – 24/12/2013’] has determined that the Process Contribution (PC) on the SAC and SPA 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. See the results in table 2 below.

Table 2 – Ammonia Emissions

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	Predicted Process Contribution $\mu\text{g}/\text{m}^3$	% of Critical Level
South Pennine Moors/Peak District Moors	1 *	0.026	2.6

*A precautionary critical level of $1 \mu\text{g}/\text{m}^3$ has been assigned to this site. 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 this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.

The ammonia modelling assessment provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU) . Although we do not agree with the applicant's exact numerical predictions, as a result of our check modelling we do agree with the conclusion that there is unlikely to be an exceedence of the critical level or nutrient nitrogen critical load at any sensitive ecological receptors.

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.

Detailed modelling has indicated that the PC for South Pennine Moors/Peak District Moors and Fall Hill Quarry is predicted to be less than 20% Critical Level for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the detailed modelling are given in the table 3 below.

Table 3 Ammonia Emissions

Name of SSSI	Ammonia Cle ($\mu\text{g}/\text{m}^3$)	PC ($\mu\text{g}/\text{m}^3$)	PC as % of Critical level
South Pennine Moors/Peak District Moors	1*	0.026	2.6
Fall Hill Quarry	1*	0.022	2.2

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

The ammonia modelling assessment provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit . Although we do not agree with the applicant's exact numerical predictions, as a result of our check modelling we do agree with the conclusion that there is unlikely to be an exceedence of the critical level or nutrient nitrogen critical load at any sensitive ecological receptors.

No further assessment is necessary

Ammonia assessment - LWS/AW.

The applicant has modelled ammonia emission for a number of Local Wildlife Sites and Ancient Woodland even though only 3 Sites needed to be assessed, as the others were screened out our Ammonia Screening Tool AST v4.4.

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 detailed modelling supplied by the applicant as part of the application (Document Reference: *An Ammonia Dispersion study for the Proposed Expanded Poultry Unit at Gorsey Place Farm, near Chesterfield, in Derbyshire 24/12/2013*). The results of the detailed modelling are given in the tables 4 and 5 below.

Table 4 - Ammonia Emissions

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
Stone Edge Wood	3.0*	0.367	12.2
Cathole Coppice and Gladwins Wood	1.0	0.117	17.7
Clayton Wood	1.0	0.823	82.3
Well Close	1.0	0.443	44.3
Walton Wood	1.0	0.321	32.1
Pearce Wood	1.0	0.264	26.4
Ivyspring Wood	3.0*	0.664	22.1
Hunger Hill Wood	1.0	1.165	38.8

* CLe3 applied as no protected lichen or bryophytes species were found when checking easimap layer

Table 5 - Nutrient enrichment - nitrogen

Site	Critical Load nutrient enrichment $\text{kg N}/\text{ha}/\text{yr}$	PC $\text{Kg N}/\text{ha}/\text{yr}$	PC % Critical Load
Stone Edge Wood	10*	2.861	28.6
Ivyspring Wood	10*	9.074	90.7

* Critical load values taken from Environment Agency Pre-application report (July 2013)

The ammonia modelling assessment provided by the applicant has been audited in detail by AQMAU . Although we do not agree with the applicant's exact numerical predictions, as a result of our check modelling we do agree

with the conclusion that there is unlikely to be an exceedence of the critical level or nutrient nitrogen critical load at any sensitive ecological receptors. Our checks also show that an exceedence of the acid deposition critical load is unlikely and therefore low risk.

No further assessment for these sites 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 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 amended site condition report for Gorsey Place Farm (dated 07/05/14 and submitted 07/05/2014 in support of the variation application EPR/DP3634KW/V002) 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.

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.	✓
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 implements the requirements of the EU Directive on Industrial Emissions. See key issues section above for further information.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
The site		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility</p> <p>There is a change to the installation boundary to include an attenuation pond.</p>	✓
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>	✓
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 sites/species/habitat has been carried out as part of the permitting process. We consider that the application will not affect the features of the site/species/habitat.</p> <p>We have completed an appendix 11 (dated 30/04/2014) and sent it to Natural England for information only. An appendix 4 has been completed(dated 30/04/2014) as a record of our assessment.</p> <p>All documents have been saved on the Environment Agency’s Electronic Data Records Management system (EDRM).</p>	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	<p>We have reviewed the operator’s assessment of environmental risk. The operator has confirmed there is little change in risk and provided an ammonia dispersion study to support the application.</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</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	Assessment, all emissions may be categorised as environmentally insignificant.	
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>The Operator has confirmed compliance with EPR6.09 , we have reviewed a summary of Operating techniques provided by the operator, they are in-line with EPR6.09.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR6.09 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.</p>	✓
The permit conditions		
Updating permit conditions during consolidation.	<p>We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓
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 S1.2 in the permit.</p>	✓
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.	✓

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
Health and Safety Executive (received 04/04/2014)
Brief summary of issues raised
No comments , please provide a copy of the permit once issued
Summary of actions taken or show how this has been covered
No action required

In addition, North East Derbyshire District Council, Environmental Health and Planning were consulted but no responses were received.