

Permitting decisions

Variation

We have decided to grant the variation for Lower House Farm Poultry Unit operated by Mr Jonathan Radford.

The variation number is EPR/FP3630AB/V003.

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 provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the <u>decision checklist</u> to show how all relevant factors have been taken into account
- shows how we have considered the <u>consultation responses</u>

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

Key issues of the decision

New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is now a separate BAT Conclusions document which will set out the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

Now the BAT Conclusions are published **all new housing within variation applications** issued after the 21st February 2017 must be compliant in full from the first day of operation.

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels for ammonia emissions which will apply to the majority of permits, as well as BAT associated levels for nitrogen and phosphorous excretion.

For some types of rearing practices stricter standards will apply to farms and housing permitted after the new BAT Conclusions are published.

This variation determination includes a review only of BAT compliance for new housing introduced with this variation. A BAT review of existing housing compliance with BAT conclusions document is to be the subject of a sector permit review and is beyond the scope of this variation application permit determination.

New BAT conclusions review

There are 33 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

We have sent out a not duly made request requiring the Applicant to confirm that the new installation complies in full with all the BAT conclusion measures.

The Applicant has confirmed their compliance with all BAT conditions for the new housing in their document entitled Appendix 11: Best Available Techniques V002 received on 11/06/2018.

The following is a more specific review of the measures the Applicant has applied to ensure compliance with the above key BAT measures.

BAT measure	Applicant compliance measure
BAT 3 - Nutritional management Nitrogen excretion	The Applicant has confirmed it will demonstrate it achieves levels of Nitrogen excretion below the required BAT-AEL of 0.6 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content.
	This confirmation was in response to the Not Duly Made Response, received 11/06/18, which has been referenced in Table S1.2 Operating Techniques of the Permit.
	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 4 Nutritional management Phosphorous excretion	The Applicant has confirmed it will demonstrate it achieves levels of Phosphorous excretion below the required BAT-AEL of 0.25 kg P ₂ O ₅ animal place/year by an estimation using manure analysis for total Phosphorous content.
	This confirmation was in response to the Not Duly Made Response for Further Information request for further information, received 11/06/18, which has been referenced in Table S1.2 Operating Techniques of the Permit.
	Table S3.3 of the Permit concerning process monitoring requires the Operator to

BAT measure	Applicant compliance measure
	undertake relevant monitoring that complies with these BAT Conclusions.
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.
BAT 25 Monitoring of emissions and process parameters - Ammonia emissions	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 26 Monitoring of emissions and process parameters - Odour emissions	 The approved OMP includes the following details for on Farm Monitoring and Continual Improvement: The site will be monitored routinely (daily walk around the site boundary initially and then weekly after the first three months operation, if odours are not detected) using sniff testing. Further sniff testing and observations will be conducted around the various operations on site to identify potential odour risks.
BAT 27 Monitoring of emissions and process parameters -Dust emissions	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.The Applicant has confirmed they will report the dust emissions to the Environment Agency annually – estimation by using emission factors.This confirmation was in response to the Not Duly Made Request for Further Information request for further information, received 11/06/18, which has been referenced in Table S1.2 Operating Techniques of the Permit.
BAT 32 Ammonia emissions from poultry houses - Broilers	The BAT-AEL to be complied with is 0.08 kg NH3/animal place/year. The Applicant will meet this as the emission factor for broilers is 0.034 kg NH3/animal place/year. The Installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL.

More detailed assessment of specific BAT measures

Ammonia emission controls

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT.

Ammonia emission controls – BAT conclusion 32

The new BAT conclusions include a set of BAT-AEL's for ammonia emissions to air from animal housing for broilers.

For variations all new housing on existing farms will need to meet the BAT-AEL.

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 Lower House Farm (received on 28/03/2018) 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 and although condition 3.1.3 is included in the permit no groundwater monitoring will be required.

Odour

Intensive farming is by its nature a potentially odorous activity. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance

(http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf).

Condition 3.3 of the environmental permit reads as follows:

"Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour."

Under section 3.3 of the guidance an Odour Management Plan (OMP) is required to be approved as part of the permitting process, if as is the case here, sensitive receptors (sensitive receptors in this instance excludes properties associated with the farm) are within 400m of the Installation boundary. It is appropriate to require an OMP when such sensitive receptors have been identified within 400m of the installation to prevent, or where that is not practicable, to minimise the risk of pollution from odour emissions.

The risk assessment for the Installation provided with the Application lists key potential risks of odour pollution beyond the Installation boundary. These activities are as follows: manufacture and selection of feed, feed storage and delivery, ventilation system, litter management, carcass disposal, house clean-out, storage of used litter and dirty water management.

Noise

Intensive farming by its nature involves activities that have the potential to cause noise pollution. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance. Under section 3.4 of this guidance a Noise Management Plan (NMP) must be approved as part of the permitting determination, if there are sensitive receptors within 400m of the Installation boundary.

Condition 3.4 of the Permit reads as follows: EPR/FP3630AB/V003 Date issued: 12/11/2018 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable to minimise the noise and vibration.

There are sensitive receptors within 400 metres of the Installation boundary as stated in section 4.4.2 above. The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation, and further details are provided in section 4.5.2 below.

The risk assessment for the Installation provided with the Application lists key potential risks of noise pollution beyond the Installation boundary. These activities are as follows: extraction fans, gable end fans, boiler flue outlet, biomass boilers, feeding system, alarm system, broilers and clean out operations.

We have assessed the NMP and the H1 risk assessment for noise and conclude that the Applicant has followed the guidance set out in EPR 6.09 Appendix 5 'Noise management at intensive livestock installations'. We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of noise pollution / nuisance.

Ammonia

The applicant has demonstrated that the housing will meet the relevant NH3 BAT-AEL.

There are 3 Special Area(s) of Conservation (SAC), /Special Protection Area(s) (SPA), /Ramsar sites located within 5 kilometres of the installation. There are 8 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also 10 Local Wildlife Sites (LWS) and Ancient Woodlands (AW)) within 2 km of the installation.

Ammonia assessment – SAC/SPA/Ramsar

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 SAC/SPA/Ramsar.

Screening using the ammonia screening tool version 4.5 has determined that the PC on the SAC/SPA/Ramsar for nitrogen deposition/acid 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 – Nitrogen deposition

Site	Critical load kg	Predicted PC kg	PC % of critical
	N/ha/yr*	N/ha/yr.	load
Midland Meres and Mosses Phase 2	10	0.305	3.1

* Critical load values taken from Air Pollution Information System (APIS) website (www.apis.ac.uk) - 28/03/18

Table 2 – Acid deposition

Site	Critical load	Predicted PC	PC % of critical
	keq/ha/yr*	keq/ha/yr.	load
Midland Meres and Mosses Phase 2	1.588	0.022	1.4

* Critical load values taken from APIS website (<u>www.apis.ac.uk</u>) – 28/03/2018

No further assessment is necessary.

Screening using the ammonia screening tool version 4.5 has determined that the process contributions of ammonia emissions/nitrogen deposition/acid deposition from the application site is over the 4% significance threshold. As such, it is not possible to conclude no adverse effect alone. Where the process contribution falls between 4% and 20%, Environment Agency guidance indicates that an in combination assessment should be undertaken.

There are no other farms acting in combination with this application. The PC is predicted to be less than 20% of the critical level threshold. It is possible to conclude no adverse effect to the site from the installation and therefore no further assessment is required. See results below.

Table 3 – Ammonia emissions

Site	Critical level ammonia µg/m³	Predicted process contribution μg/m ³	% of critical level
Montgomery Canal - SAC	3*	0.369	12.3

* Cle received from Natural Resource Wales on 06/10/16

No further assessment is required.

Screening using the ammonia screening tool version 4.5 has determined that the process contributions of ammonia emissions from the application site are over the 4% threshold, and are therefore potentially significant. An in combination assessment has been carried out. There are 3 other farms acting in combination with this application. A detailed assessment has been carried out as shown below.

A search of all existing active intensive agriculture installations permitted by the Environment Agency has identified the following farms within 5 km of the maximum concentration point for Midland Meres and Mosses Phase 2 Ramsar.

Name of Farm	PC μg/m ³ *	Critical level µg/m ³	PC as % of critical level
Lower House Farm	0.059	1*	5.9
Llynclys Farm	0.053	1*	5.3
Morton Ley Farm	0.208	1*	8.4
Knockin Egg Farm	0.056	1*	5.6
Total PC	0.376		25.2

Table 4 – In combination farms assessment for Ammonia emissions

* Critical load values taken from APIS website (<u>www.apis.ac.uk</u>) – 28/03/2018

Midland Meres and Mosses Phase 2 – there were other farms acting in combination which resulted in the total PC exceeding 20 per cent (Z). As a result the operator undertook detailed modelling and provided an ammonia emissions impact assessment - document reference 01.0005.011 June 2018.

Detailed modelling provided by the applicant has been audited by AQMAU and we agree with the report conclusions, although we don't agree with the exact numerical values. Process contributions were overestimated by the applicant. Based on our methodology they would be less than 4 per cent. No further assessment is required.

Ammonia assessment – SSSI

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 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 5 km of the SSSI.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Lower House Farm will only have a potential impact on SSSI site(s) with a precautionary critical level of $1\mu g/m^3$ if they are within 1626 metres of the emission source.

Beyond 1626 m the PC is less than 0.2μ g/m³ (i.e. less than 20% of the precautionary 1μ g/m³ critical level) and therefore beyond this distance the PC is insignificant. In this case the following SSSI's are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of $1\mu g/m^3$ is used, and the process contribution is assessed to be less than 20% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the $1\mu g/m^3$ level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely damage to these sites.

Table 5 – SSSI Assessment

Name of SSSI	Distance from site (m)
Blodwel Marsh	2692
Morton Pool and Pasture	3532
Crofts Mill Pasture	4353
Sweeney Fen	3885
Gweunydd Ty-Brith (Ty-Brith Meadows)	4547

Screening using the ammonia screening tool version 4.has indicated that the PC for Llanymynech and Llynclys Hills and Montgomery Canal is predicted to be less than 20% of the critical level for ammonia emissions and acid deposition. Therefore it is possible to conclude no damage. The results of the ammonia screening tool version 4.5 are given in the tables below.

Table 6 – Ammonia emissions

Site	Ammonia Cle (µg/m³)	PC (µg/m³)	PC % critical level
Montgomery Canal	3*	0.369	12.3

* Cle received from Natural Resource Wales on 06/10/16

Table 7 – Acid deposition

Site	Critical load keq/ha/yr*	PC keq/ha/yr.	PC % critical load
Llanymynech and Llynclys Hills (England)	1	0.133	7.7
Llanymynech and Llynclys Hills (Wales)	1	0.116	6.7

Critical load values taken from APIS website (www.apis.ac.uk) - 28/03/2018

No further assessment is required.

Initial modelling using the ammonia screening tool version 4.5 has determined that the PCs of ammonia emissions from the application site are over the 20% threshold, and therefore may cause damage to features of the SSSI. An in combination assessment has therefore been carried out.

There are no other farms acting in combination with this application. The PC is predicted to be less than 50% of the critical level / load significance threshold. Under Environment Agency guidelines it is therefore possible to conclude no likely damage to the site from the installation, no further assessment is required.

Table 8– Ammonia emissions

Site	Critical level ammonia µg/m³	Predicted process contribution μg/m ³	% of critical level
Llanymynech and Llynclys Hills (England)	1	0.359	35.9
Llanymynech and Llynclys Hills (Wales)	1	0.313	31.3

Table 9 – Nitrogen deposition

Site	Critical load kg N/ha/yr*	Predicted PC kg N/ha/yr.	PC % of critical load
Llanymynech and Llynclys Hills (England)	8	1.867	23.3
Llanymynech and Llynclys Hills (England)	8	1.623	20.3

* Critical load values taken from APIS website (www.apis.ac.uk) – 28/03/2018

Ammonia assessment - LWS/AW

The following trigger thresholds have been applied for the assessment of these sites:

• If the process contribution (PC) is below 100% of the relevant critical level (CLe) or critical load (CLo) then the farm can be permitted with no further assessment.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Lower House Farm will only have a potential impact on the LWS/AW sites with a precautionary critical level of 1μ g/m³ if they are within 587 metres of the emission source.

Beyond 587m the PC is less than $1\mu g/m^3$ and therefore beyond this distance the PC is insignificant. In this case all LWS/AW's are beyond this distance (see table below) and therefore screen out of any further assessment.

Name of SAC/SPA/Ramsar	Distance from site (m)
Llanymynech Rocks (Shrops) (LWS)	1039
Llanymynech Rocks (Mont) (LWS)	1313
Llynclys Common (LWS)	1925
Pant Roadside Verge (LWS)	2034
Swan Hill Meadows (LWS)	2088
Llanymynech Hill Wood (AW)	1868
Llynclys Hill Wood (AW)	2000
Restored Ancient Woodland Site (AW)	1908

Table 10 – LWS/AW Assessment

Plantation on Ancient Woodland Site (AW)	1982
Restored Ancient Woodland Site (AW)	1670

No further assessment is required.

Decision checklist

Aspect considered	Decision	
Receipt of application		
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.	
Consultation/Engagement		
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.	
	The application was publicised on the GOV.UK website.	
	We consulted the following organisations:	
	Health and Safety Executive	
	Shropshire Council (Planning Authority)	
	Environmental Health Department (Shropshire Council)	
	Director of Public Health (Shropshire County Council)	
	Public Health England	
	The comments and our responses are summarised in the consultation section.	
The facility		
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility'.	
	The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.	
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.	
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.	
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.	
	We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.	
	We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.	
	We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.	

Aspect considered	Decision	
Environmental risk assessment		
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		
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. Revised odour and noise management plans have been incorporated into the operating techniques. The farm will operate in accordance with the new BAT conclusions.	
	The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.	
Odour management	We have reviewed the odour management plan in accordance with our guidance on odour management.	
	We consider that the odour management plan is satisfactory.	
	See Key Issues.	
Noise management	We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.	
	We consider that the noise management plan is satisfactory.	
	See Key Issues	
Permit conditions		
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).	
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.	
Emission limits	ELVs [and/or] equivalent parameters or technical measures based on BAT have been set for the following substances:	
	kg N excreted/animal place/year	
	 kg P₂O₅ excreted/animal place/year 	
	 kg NH₃ animal place/year 	
	See Key Issues.	
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.	
	These monitoring requirements have been imposed in order to meet the requirements of BAT Conclusions 24, 25, 26 and 27 of the IRPP BAT Conclusions.	

Aspect considered	Decision
	See Key Issues.
Reporting	We have specified reporting in the permit. This is in line with BAT Conclusions 24, 25, 26 and 27 of the IRPP BAT Conclusions.
	We made these decisions in accordance with the IRPP BAT Conclusions.
	See Key Issues.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.
	Paragraph 1.3 of the guidance says:
	"The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation."
	We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non- compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.
	We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, newspaper advertising, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from

Director of Public Health (Shropshire Council)

Brief summary of issues raised

Recommend that noise and odour are considered in detail due to proximity of residential receptors.

Summary of actions taken or show how this has been covered

Noise and odour management plans have been assessed and incorporated into the operating techniques of the permit.

Response received from

Public Health England

Brief summary of issues raised

The main emissions of potential public health significance are emissions to air of bioaerosols, dust including particulate matter and ammonia.

Summary of actions taken or show how this has been covered

The permit has a condition which states that emissions of substances not controlled by emission limits shall not cause pollution. If necessary, the Environment Agency can request an emissions management plant.