

Intensive Farming Decision Document

Bespoke permit

We have decided to grant the permit for **Wotherton Farm** operated by **Mr Thomas Gittins**

The permit number is **EPR/AP3238NW/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

1. Introduction

The installation consists of four poultry houses with places for 200,000 birds. It is located near Wotherton in Shropshire at grid reference 328130,300829. Birds will be brought to the installation from a hatchery and kept at the installation for the growing cycle of 49 days. The poultry houses will have high velocity ridge fans. The houses will also have gable end fans, although these

are operated infrequently to maintain temperature, typically in the summer months.

Biomass boilers will be used to provide hot water to heat the houses, with LPG as a stand-by fuel.

After removal of the birds litter will be removed. The houses will be washed down and wash water will be collected in underground tanks. Litter, biomass boiler ash and dirty water will be spread onto land off-site and on land owned by the operator.

Clean drainage water will be discharged to a swale or a ditch as shown on the site drainage plan.

There are several ecological sites within the relevant screening distance of the installation, 2 Special Areas of Conservation, 1 Ramsar site, 9 Sites of Special Scientific Interest and 7 other conservation sites.

2. 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 Wotherton Farm (01/07/14) 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.**

3. Biomass boilers

The application includes 4 biomass boilers. Each boiler will have a thermal input of 0.199 MW, total of ~0.8 MW.

In line with the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms", an assessment has been undertaken to consider the proposed inclusion of the biomass boilers.

This guidance states that 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;
- the aggregate boiler net rated thermal input is less than or equal to 4 MW_{th}, and no individual boiler has a thermal input greater than 1 MW_{th}, 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

The Environment Agency's risk assessment has shown that the biomass boilers meet the requirements of the criteria above, and are therefore considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

4. Ammonia impact assessment

There are two Special Areas of Conservation (SAC) and one Ramsar site located within 10km of the installation. There are nine Sites of Special Scientific Interest (SSSI) located within 5 kilometres of the installation and 7 other conservation sites within 2km.

4.1 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.

4.1.1 Ammonia screening tool (v4.3)

The Ammonia Screening Tool (v4.3) was used and the results are shown in the tables below.

Table 1 Ammonia Emissions

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	Predicted Process Contribution $\mu\text{g}/\text{m}^3$	% of Critical Level
The Stiperstones & The Hollies	1 ^[1]	0.012	1.2
Mongomery Canal	1 ^[1]	0.011	1.1
Midland Meres & Mosses phas 1 (Marton Pool SSSI)	3 ^[2]	0.086	2.9

[1] A precautionary level of $1\mu\text{g}/\text{m}^3$ has been used during the screen. Where the precautionary level 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. In these cases the $1\mu\text{g}/\text{m}^3$ level used has not been confirmed, but it is precautionary.

[2] Natural England advised, in June 2013, that a Cle of $3\mu\text{g}/\text{m}^3$ for ammonia should be applied

Table 2 Nitrogen deposition

Site	Critical Load kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Midland Meres & Mosses phase 1 (Marton Pool SSSI)	5	0.447	8.9

Critical load taken from habitats database

Table 3 Acid deposition

Site	Critical Load keq/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Midland Meres & Mosses	No critical load	-	-

phas 1 (Marton Pool SSSI)			
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Critical load values taken from APIS website (www.apis.ac.uk)

The process contributions are <4% of the CLe or CLo and screen out with the exception of N deposition at Midlands Meres and Mosses Ramsar site. The PC is 8.9% and there are other farms within 10km of the Ramsar, therefore this site does not screen out and detailed modelling is required.

4.1.2 Detailed modelling

The applicant carried out dispersion modelling using ADMS version 5 to show nitrogen deposition compared to the critical load

Table 4 Ammonia emissions

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	Predicted Process Contribution $\mu\text{g}/\text{m}^3$	% of Critical Level
Midland Meres & Mosses phas 1 (Marton Pool SSSI)	3	0.168	5.6

Table 5 – Nitrogen deposition

Site	Critical Load kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Midland Meres & Mosses phase 1 (Marton Pool SSSI)	10	1.306	13.1

Critical load values taken from APIS website (www.apis.ac.uk)

The modelling showed that both ammonia and N deposition did not screen out. The PC is >4% and there are other farms within 10km of the Ramsar site.

We carried out an audit of the modelling and looked at in-combination effects with other farms within 10km of the Ramsar:

- New House Farm (EPR/GP3537TT)
- Aston Hall Farm (EPR/FP3637ZV)

Table 5 Assessment of nutrient enrichment emissions in-combination (as based on applicants modelled figures)

Farms	Receptor location	Critical load (kgN/ha/yr)	Modelled ΣPC (kgN/ha/yr)	Modelled PC as % of critical level
Wotherton Farm in combination with Aston Hall Farm and New House Farm	Midlands Meres and Mosses	10	1.9	19

For sites where the Predicted Environmental Concentration (PEC) (Σ PC + background) exceeds the relevant CLe or CLo, the following assumptions will be applied:

- If Σ PC < 20% of CLe or CLo no further assessment is required and it is possible to conclude no adverse effect alone and in combination.
- If Σ PC >20% of CLe or CLo a site specific assessment should be carried out.

Table 7 shows that the Σ PC is less than 20% of the CLo and we could conclude no adverse effect. However the results shown in table 7 are overly precautionary. The Applicant's modelling contained errors in the way the source data had been modelled. Whilst this did not affect the outcome of this assessment, the actual impacts would be significantly less than those proposed in the applicant's modelling report. We addressed these errors in our audit.

Based on the applicant's modelling and our audit, it is possible to conclude no adverse effect in combination, as the Σ PC for nitrogen deposition will be well below 20% of the CLo so we can conclude no adverse effect alone or in combination.

4.2 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.

The SSSIs within 5km are:

- Betton Dingle and Gulley Green
- Spy Wood & Aldress Dingle
- The Lump, Priestweston
- Marton Pool, Chirbury
- Meadowtown Quarry
- Kingswood Meadow
- White Grit Meadows
- Spy Wood and Aldress Dingle
- Corndon Hill

4.2.1 Ammonia screening tool (v4.3)

The ammonia screening tool showed that SSSIs further than 1123m from the farm would be screened out with a PC of <20%. The closest SSSI to the farm is Marton Pool, Chirbury which is 2086m away. Therefore all of the SSSIs screen out from further assessment.

4.3 Ammonia Assessment – other sites

The following trigger thresholds have been applied for assessment of other 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.

4.3.1 Ammonia screening tool (v4.3)

The ammonia screening tool showed that sites further than 421m from the farm would be screened out with a PC of <100%. The closest site to the farm is Woodmoor Heronry which is ~470m away. Therefore all of the other sites screen out from further assessment.

5. Odour Management Plan (OMP)

The applicant provided an OMP with the application. A revised OMP was then provided based on our briefing note 'Top tips for completing an Intensive Farming Odour Management Plan.'

The OMP included the following key information:

- A description of measures that would be used to control odour including dust and other fugitives, dirty water management, litter management including reference to litter management plan and ventilation.
- A reference back to the H1 risk assessment.
- A map showing the location of receptors within 400m of the farm.
- A commitment to update the plan if needed due to changes or odour complaints.
- A example of an odour complaint form was provided

Annex 1 the decision checklist

Aspect considered	Justification / Detail	Criteria met
		Yes
Receipt of submission		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Consultation		
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>We consulted with:</p> <ul style="list-style-type: none"> • Health and Safety Executive • Shropshire Council 	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
Operator		
Control of the facility	<p>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.</p>	✓
European Directives		
Applicable directives	<p>All applicable European directives have been considered in the determination of the application.</p> <p>See Key Issues for discussion of the Industrial Emissions Directive (IED).</p>	✓
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>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</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</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	condition reports and baseline reporting under IED–guidance and templates (H5).	
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 has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites.</p> <p>Formal consultation has been carried out with Natural England using an appendix 11 and an appendix 12. Natural England agreed with our assessment of no adverse affect..</p> <p>See key issues section for more detail of the impact assessment</p>	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	<p>We have carried out a risk assessment on behalf of the operator using the ammonia screening tool and our biomass boiler position statement.</p> <p>See key issues section for further details</p>	✓
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>See key issues section for more 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 applicant provided a technical standards document that set out the key techniques that will be used. The techniques proposed were in line with those set out in sector guidance note EPR 6.09:</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ul style="list-style-type: none"> - The farm has an Accident Management Plan in place. - Staff are trained in the requirements of the permit and accident prevention. They can recognise incidents and investigate and rectify the causes. - A complaints procedure is in place on the farm with a recording system to log any complaints. This includes odour or noise complaints. - Planned preventative maintenance will be carried out. - Security measures will be in place including a perimeter fence. - Protein and phosphorus will be reduced over the growing cycle - Housing design and management is in accordance with the requirements for poultry set out in EPR 6.09. They will be well insulated with a damp proof course. The sheds will be fan ventilated with a fully littered floor with non-leaking drinkers. There will be high velocity roof fans and gable end fans for use in hot weather. Biomass boilers will provide heat to the houses with LPG boilers as a back-up. - A system will be in place to record the number of animal place and movements. - Drainage from animal housing and water from cleaning out will be collected in an underground storage tank. Diverter bungs will be used to prevent contamination of surface water. Clean water systems will not be contaminated and will discharge to soakaways and a ditch as shown on the site drainage plan. - Feed will be stored in covered silos. Feed milling will not take place on-site. Dust is also controlled through management of ventilation. - Carcasses will be stored in sealed vermin proof containers prior to collection under the National Fallen Stock Scheme. - Fuel storage will be bunded to the standards set out in the oil storage regulations. - Feed silos will be protected from collision damage and sited away from traffic. No liquid feed will be stored at the site. 	

Aspect considered	Justification / Detail	Criteria met
		Yes
	The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in the TGN 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.	
The permit conditions		
Odour	<p>While we consider that the Applicant's proposals represent the appropriate measures to prevent/ minimise odour from the permitted activities.</p> <p>The Applicant provided an odour management plan (OMP). The OMP was in line with our guidance on preparing an OMP.</p> <p>See key issues section.</p>	✓
Noise conditions	A noise management plan has been incorporated into the permit operating techniques.	✓
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>The biomass fuel must be non-waste materials.</p>	✓
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>We have set two pre-operational conditions. They both relate to the biomass boilers.</p> <ol style="list-style-type: none"> 1. The applicant provided an accident risk assessment for the boilers. However the installation has not yet been built and the applicant stated that the boiler technology might change between permit application and the final design stage. Pre-operational condition 1 requires the operator to re-assess the accident risk and submit a revised assessment if required. 2. For the same reasons as above, the applicant was not able to provide a renewable heat incentive certificate for the biomass boilers. Pre-operational condition 2 requires this to be submitted before operation commences. 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Improvement conditions	Based on the information on the application, we did not need to set any improvement conditions	✓
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>	✓
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.	✓
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>	✓
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 advertising responses

Natural England were consulted on the ammonia impact assessment with an appendix 11 and 12. They responded to inform us that they agreed with our conclusions of no adverse affect.

No other responses were received.