

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Oakfields Farm operated by Vaughans Farms Limited.

The permit number is EPR/PP3235CE.

This was applied for and determined as a new bespoke permit.

The installation is operated by Vaughans Farms Limited and comprises five poultry houses, numbered 1 to 5, which are all ventilated by high velocity roof extraction fans. The five poultry houses provide a combined capacity for 255,000 broilers.

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 – Ammonia Emissions Assessment, Biomass Boilers, Industrial Emissions Directive (IED)
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Ammonia Emissions Assessment

There is one Special Areas of Conservation (SAC) located within 10km of the installation. There are three Sites of Special Scientific Interest (SSSI) located within 5 kilometres of the installation. There are also five Local Wildlife Sites (LWS) and one Ancient Woodlands (AW) within 2km of the installation.

Ammonia Assessment – River Wye SAC

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.

Screening using the Ammonia Screening Tool (v4.4) has determined that the Process Contribution (PC) on the SAC 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 results 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
River Wye SAC	1*	0.010	1.0%

* A precautionary critical level of $1 \mu\text{g}/\text{m}^3$ has been assigned to this site. 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.

Ammonia Assessment – SSSI's

The following trigger thresholds have been applied for assessment of SSSI's. 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 the Ammonia Screening Tool (v4.4) has indicated that the PC for Fishpool Valley, River Lugg Meanders and River Lugg SSSI's are 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 ammonia screening tool v4.4 are given in the tables below.

Table 2 - 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
Fishpool Valley	$1\mu\text{g}/\text{m}^3$ *	0.032	3.2%
River Lugg Meanders	N/A**		
River Lugg	N/A**		

* 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 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.

** Natural England confirmed 'Given the absence of information on direct damage to this type of vegetation, the potential low risk of acidification and the likely dominance of other (diffuse, aquatic) sources of nitrogen - the application of the critical level for atmospheric ammonia is not considered defensible at this time.'

Ammonia assessment – LWS & AW

There are five Local Wildlife Sites (LWS) and one Ancient Woodland within 2 km of Oakfields Farm. 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 Oakfields Farm will only have a potential impact on sites with a critical level of $1\mu\text{g}/\text{m}^3$ if they are within 493m of the emission source. Screening indicates that beyond this distance, the Process Contribution at conservation sites is less than $1\mu\text{g}/\text{m}^3$. $1\mu\text{g}/\text{m}^3$ is 100% of the $1\mu\text{g}/\text{m}^3$ critical level and therefore beyond this distance the PC is insignificant. In this case all local wildlife sites below are beyond this distance.

Table 3 – distance from source

Site	Distance (m)
Field north of Harbour Farm LWS	1,456
Eyeton Common LWS	1,571
Pinsley Brook LWS	701
Oaker Wood (2) LWS	1,972
Oaker Wood AW	2,075

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 sites this farm has been screened out, as set out above, using results of the Ammonia Screening Tool version 4.4. The Process Contribution on the LWS for ammonia, acid and N deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect.

Table 4 - ammonia emissions LWS

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
River Lugg	3*	0.166	38.9%

* CLe3 applied as no protected lichen or bryophytes species were found when checking easimap layer – 06/03/2014.

Table 5 - nutrient enrichment LWS

Site	Critical Load nutrient enrichment kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
River Lugg	10*	6.055	60.6%

* Critical load values taken from APIS website (www.apis.ac.uk) – 06/03/2014

Table 6 - acidification

Site	Critical Load acidification keq/ha/yr	PC keq/ha/yr	PC % Critical Load
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River Lugg	2.84*	0.432	15.211%
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* Critical load values taken from APIS website (www.apis.ac.uk) – 06/03/2014

No further assessment is required.

Biomass Boilers

The applicant is installing five biomass boilers with a net rated thermal input of 995 kilowatts to assist the heating of the poultry houses.

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 addition of the biomass boilers.

This guidance states that the Environment Agency has assessed the pollution risks and have 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 where:

- (i) the fuel will be derived from virgin timber, miscanthus or straw, and;
- (ii) the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;
- (iii) the aggregate boiler net rated thermal input is:
 - A. less than 0.5MWth, or;
 - B. less than 1MWth where the stack height is greater than 1 metre above the roof level of adjacent buildings (where there are no adjacent buildings, the stack height must be a minimum of 3 metres above ground), and there are:
 - no Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest within 500 metres of the emission point(s);
 - no National Nature Reserves, Local Nature Reserves, Ancient Woodlands or Local Wildlife Sites within 100 metres of the emission point(s), or;
 - C. less than 2MWth where, in addition to the above criteria for less than 1MWth boilers, there are:
 - no sensitive receptors within 150 metres of the emission point(s).

The biomass boilers meet the requirements of criteria B above, and are therefore considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

In accordance with the Environment Agency's Air Quality Technical Advisory Guidance 14: "for combustion plants under 5MW, no habitats assessment is required due to the size of combustion plant". Therefore this proposal is considered acceptable and no further assessment is required.

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, 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 site condition report for Oakfields Farm (dated January 2014) 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 or soil 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		
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	<p>The consultation responses (Annex 2) were taken into account in the decision.</p> <p>No responses were received to web publication.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
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	<p>All applicable European directives have been considered in the determination of the application.</p> <p>This permit implements the requirements of the EU Directive on Industrial Emissions.</p> <p>See key issues section above for further information.</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>	✓

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>	✓
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 for the reasons outlined in the Key Issues section above.</p> <p>Natural England were consulted in the construction of the Environment Agency’s May 2013 document “Biomass boilers on EPR Intensive Farms”. This proposal screened out based on the criteria within that paper and as such is considered acceptable in terms of potential to impact sites of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>See key issues section above for further information.</p> <p>An Appendix 4 was completed and saved to EDRM on 24/02/2014 ‘For Audit Only’.</p> <p>An Appendix 11 was completed and sent to Natural England on 06/03/2014 ‘For Information Only’.</p> <p>Formal consultation has been carried out with the relevant bodies in accordance with our Operational Instruction 84_07, and as such no responses were required to be taken into account in the permitting decision.</p>	✓
Environmental Risk Assessment and operating techniques		

Aspect considered	Justification / Detail	Criteria met
		Yes
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.</p>	✓
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 proposed the following key techniques:</p> <ul style="list-style-type: none"> • Dirty water storage facilities are in place on site; • Nipple drinkers are used to reduce wastage of water and maintain dry litter; • Chemical storage is within a purpose-built store on site that is fully bunded; • All fuels are stored in bunded fuel stores; • Emergency generator on site in case of power failure; • Carcasses stored in sealed bins before being sent for incineration by an approved contractor; • the fuel for the biomass boiler is derived from virgin timber; • the biomass boiler appliances and their installation meets the technical criteria to be eligible for the Renewable Heat Incentive; and • the stacks are 1m or more higher than the apex of the adjacent buildings. <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR6.09 'How to comply with your environmental permit for intensive farming (version 2)' and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions.</p>	✓
The permit conditions		
Raw materials	We have specified limits and controls on the use of raw materials and fuels.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	We have specified that only virgin timber (including wood chips and pellets), straw, miscanthus or a combination of these. These materials are never to be mixed with, or replaced by, waste.	
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> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</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 responses

The following organisations were also consulted, however no responses were received:

- Environmental Health - Herefordshire Council
- Local Planning Authority - Herefordshire Council
- Health and Safety Executive

This proposal was also publicised on the Environment Agency's website between 10/03/2014 and 07/04/2014, but no representations were received during this period.