

Environment Agency permitting decisions

Consolidated Substantial Variation

We have decided to issue the substantial variation for Red House Farm Poultry Unit operated by operated by Mr Guy Davies, Mr. Gordon Davies, Mrs. Elizabeth Davies and Mrs. Susan Davies (Trading as G C Davies & Co).

The permit number is EPR/VP3834TP

The variation number is EPR/VP3834TP/V004

This was applied for and determined as a substantial variation.

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

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 so that it now 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 (SCR) for Red House Farm Poultry Unit 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.**

Biomass boiler

The Operator is varying their permit to include an additional biomass boiler with a net rated thermal input of 995kWth, increasing the number of biomass boilers at the facility to two. Giving a combined total aggregated thermal input of 1990kWth (2 x 995kWth).

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:

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:

- 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 C 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.

Ammonia emissions

Screening Input

Grid Reference used for the assessment: 340841,320416 (with a 100m buffer)

Animal numbers and types

Animal numbers and types, housing systems, manure and slurry storage assessed are listed below. The animal numbers and emission factors are based on an interpretation of the information provided by the applicant during the pre-application process and have been used in this initial risk assessment to identify if modelling is necessary.

Category of livestock	Housing system	Number of poultry places	Ammonia Emission Factor (kg NH ₃ /animal place/year)
Broilers	Fan ventilated fully littered floor, non-leaking drinkers. Roof ventilation only (vents greater than 5.5 metres high, fan efflux velocity greater than 7 m/s)*	390,000	0.034

* this can include gable end fans that are used for heat extraction only during the summer months

No Manure Storage on site

If the Operator decides to alter their proposal by increasing the number of animal places or by changing the animal housing type or by increasing the manure or slurry storage they will need to request a new screening assessment.

Screening Overview

This screening assessment has considered any Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 10km; any Sites of Special Scientific Interest (SSSI) within 5km and also any National Nature Reserves (NNR), Local Nature Reserves (LNR), ancient woodlands and local wildlife sites (LWS) within 2km of the farm.

We have used the Environment Agency's Ammonia Screening Tool (AST v4.4) to assess the impact of your proposal at those sites identified within the above distance criteria.

We have applied a two stage screening criteria to the ammonia screening tool results:

For SAC, SPA, Ramsar and SSSIs the screening assessment has taken into account other intensive farms that could act in combination with the proposal.

Where the ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be <Y% (see Table 1 below) of the relevant Critical Level or Critical Load, the proposal screens out of the requirement for an ammonia assessment.

Further modelling is required where:

- emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) are in excess of Z% of the relevant Critical Level (ammonia) or Critical Load (nutrient nitrogen or acid) at any particular designated site;

- there is the potential for an in-combination effect with existing farms at a SAC, SPA, Ramsar and/or SSSI if emissions are > Y% of the critical level or critical load;
- the original permit for the installation required an Improvement Condition to reduce ammonia emissions;
- your proposal is within 250m of a nature conservation site.

Table 1 Screening thresholds

Designation	Y%	Z%
SAC, SPA, Ramsar	4	20
SSSI	20	50
NNR, LNR, LWS, ancient woodland	50	100

Screening Results

The ammonia impacts from the proposal screened out and therefore detailed modelling is not required.

Ammonia Emissions Assessment

There are two Ramsar sites 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 5 Local Wildlife Sites (LWS), / Ancient Woodlands (AW) within 2km of the installation.

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.

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
Midlands Meres and Mosses Phase 1 (Fenemere SSSI)	3 $\mu\text{g}/\text{m}^3$ *	0.059	2%
Midlands Meres and Mosses Phase 2 (Hencott Pool SSSI)	1 $\mu\text{g}/\text{m}^3$	0.018	1.8%

*Screens in at Cle 1. Audited spreadsheet states: Fenemere - No mention of lower plants on citation. No confirmed ammonia-sensitive species found on site. Habitat Specialist considers and local officers agree that although bryophytes may be present, they are not likely to be key to ecosystem integrity. Advise appropriate critical level = 3 $\mu\text{g}/\text{m}^3$ with uncertainty range of 2-4 $\mu\text{g}/\text{m}^3$. This has been confirmed following advice from CEH. Screens out at Cle3

No further assessment is necessary.

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 SSSI's 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 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
Shrawardine Pool	1 $\mu\text{g}/\text{m}^3$ *	0.060	6.0%
Lin Can Moss	1 $\mu\text{g}/\text{m}^3$ *	0.84	8.4%
Fenemere	1 $\mu\text{g}/\text{m}^3$ *	0.059	5.9%

* 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.

No further assessment is necessary.

Ammonia assessment - LWS/AW/LNR.

There are four Local Wildlife Sites (LWS) / Ancient Woodland within 2 km of Upper House 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 4.4 has indicated that emissions from Upper House 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 651m 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)
Nesscliff - Great Ness (LW)	2024m
Cottage Plantation Pools (LW)	2073m
The Cliffe (LW)	1362m
Nesscliffe Hill Wood (AW)	2089m
Vales Wood (AW)	1174m

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.

No further assessment is necessary.

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 web publicising	The web publicising 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.	✓
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. 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– guidance and templates (H5).	✓
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. 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.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p> <p>An appendix 11 was sent to Natural England for information purposes only on 02/04/14.</p> <p>An appendix 4 (CROW) form was completed 02/05/14 for audit trail only. All documents are saved on EDRM.</p>	
Environmental Risk Assessment and operating techniques		
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	We have reviewed the techniques used by the Operator and compared these with the relevant guidance notes. The proposed techniques for priorities for control are in line with the techniques 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		
Updating permit conditions during consolidation.	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). The Operator has agreed that the new conditions are acceptable.	✓
Raw materials	We have specified limits and controls on the use of raw materials and fuels. 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.	✓
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>Pre-operational condition 1 - The Operator shall inform the Environment Agency at least 14 days before the use of any proposed biomass boiler units.</p> <p>The Operator has yet to confirm the manufacturer of the boiler but has specified that the boiler will be no greater than 995kWth. Also planning permission has yet to be granted for an additional biomass boiler.</p>	✓
Incorporating the application	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. These descriptions are specified in the Operating Techniques table in the permit.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
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	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.	✓

Annex 2: Consultation and web publicising

The Health and Safety Executive (HSE), Food Standards Agency (FSA), Shropshire Council Planning and Shropshire Council Environmental Health Department were consulted; however, consultation responses from these parties were not received.

The permit application was also published on the Environment Agency's website; no comments were received during the consultation period.