

# **Environment Agency permitting decisions**

## **Variation**

We have decided to issue the variation for Cherry Rock Farm Poultry Unit, Old Oak Farm Poultry Unit and Newberries Farm Poultry Unit operated by Mr Geoffrey Phelps and Mrs Sybil Phelps (trading as G & S Phelps).

The variation number is EPR/NP3239UE/V005.

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**

- Description of the changes introduced by the variation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

## **Description of the changes introduced by the Variation**

This is a Substantial Variation.

This variation authorises the following changes:

- the addition of Newberries Farm Poultry Unit to the permit, increasing broiler places from 300,000 to 360,000 broiler places across the three farms; and
- replacing 4 biomass boilers with an aggregated thermal input of 0.884 MWth with 1 new biomass boiler with a thermal input of 0.940 MWth at Old Oak Farm Poultry Unit.

## **Key issues of the decision**

### **Ammonia emissions**

The installation is split across three discrete sites. A habitats screen was carried out for each site and the ammonia assessment was aggregated to consider the impact of the whole installation.

There are two Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also ten Local Wildlife Sites (LWS) and Ancient Woodlands (AW) within 2 km of the installation.

### **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 (CL<sub>e</sub>) or critical load (CL<sub>o</sub>) 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 application.

Screening using the ammonia screening tool version 4.5 has indicated that the PC for Collinpark Wood SSSI and Ashleworth Ham SSSI is predicted to be less than 20% of the critical level for ammonia emissions. Therefore it is possible to conclude no damage. The results of the ammonia screening tool are given in the tables below.

**Table 1 – Ammonia emissions**

Site	Ammonia Cle ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PC % critical level
Collinpark Wood SSSI	1	0.138	13.8
Ashleworth Ham SSSI	1	0.033	3.3

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 acid deposition 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 required.

### **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.

Screening using the ammonia screening tool version 4.5 has determined that the PC for the LWS and AW for ammonia emissions from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect. See results below.

**Table X - Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Catsbury Wood LWS	1	0.156	15.6
Hartpury Meadows LWS	1	0.032	3.2
Oridge Street Meadows LWS	1	0.163	16.3
Carter's Grove LWS	1	0.029	2.9
Grinnell's Wood LWS	1	0.087	8.7
Unknown Wood AW	1	0.098	9.8
Mount Oliver Wood 1 AW	1	0.347	34.7
Mount Oliver Wood 2 AW	1	0.424	42.4
Catsbury Wood AW	1	0.156	15.6
Carter's Grove AW	1	0.029	2.9

Precautionary CLe of  $1 \mu\text{g}/\text{m}^3$  has been used. Where the precautionary level of  $1 \mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than 100% the site automatically screens out as insignificant, and no further

assessment of critical load is necessary. In these cases the 1 µg/m<sup>3</sup> level used has not been confirmed, but it is precautionary.

No further assessment is required.

### **Biomass boilers**

The applicant is varying their permit to replace 4 biomass boilers at Old Oak Farm Poultry Unit with 1 new boiler with a net rated thermal input of 0.940 MW. Newberries Farm Poultry Unit has 2 biomass boilers with an aggregated net thermal input of 0.442 MW.

Cherry Rock Farm Poultry Unit has 2 biomass boilers with an aggregated net thermal input of 0.442 MW

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;

For poultry:

- the aggregate boiler net rated thermal input is less than or equal to 4 MWth, and no individual boiler has a net thermal input greater than 1 MWth, and;
- the stack height must be a minimum of 5 metres above the ground (where there are buildings within 25 metres the stack height must be greater than 1 metre above the roof level of buildings within 25 metres) and;
- there are no sensitive receptors within 50 metres of the emission point(s).

This is in line with the Environment Agency's document "Air Quality and Modelling Unit C1127a Biomass firing boilers for intensive poultry rearing", an assessment has been undertaken to consider the proposed addition of the biomass boilers.

The Environment Agency's risk assessment has shown that the biomass boilers at each farm 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.

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.

## Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
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.	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> <li>• Public Health England</li> <li>• Director of Public Health</li> <li>• Local Authority - Environmental Health - Planning</li> <li>• Food Standards Agency</li> <li>• Health and Safety Executive</li> </ul>	✓
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>	✓
<b>The facility</b>		
The regulated facility	<p>The extent/nature of the activities and operations taking place at the site required clarification.</p> <p>The total number of birds on site will be 360,000, not 340,000 as stated in the application. The application did not take account of the increase in bird numbers that was implemented in variation EPR/NP3239UE/V004.</p> <p>The capacity is divided amongst the units as follows: Cherry Rock Farm Poultry Unit – 90,000 broilers Old Oak Farm Poultry Unit – 210,000 broilers</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	Newberries Farm Poultry Unit – 60,000 broilers	
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
<b>The site</b>		
Extent of the site of the facility	<p>The operator has provided plans which we consider are 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 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>2 SSSIs within 5 km 10 LWS/AW within 2 km</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 (see key issues section above for more information). We consider that the application will not affect the features of the sites.</p> <p>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.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	We have carried out a risk assessment on behalf of the operator.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>See Key Issues section for further explanation.</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>Emissions of ammonia have been previously screened out as insignificant, and so the Environment Agency agrees that the Applicant's proposed techniques are BAT for the installation.</p> <p>The operating techniques for the biomass boilers are as follows:</p> <ul style="list-style-type: none"> <li>• the fuel is derived from virgin timber,</li> <li>• the biomass boiler appliance and its installation meets the technical criteria to be eligible for the Renewable Heat Incentive; and</li> <li>• the stacks are 1m or more higher than the apex of the adjacent buildings.</li> </ul> <p>The operating techniques for the new unit at Newberries Farm are as follows:</p> <ul style="list-style-type: none"> <li>• non-leaking drinkers are used;</li> <li>• all houses have a concrete base;</li> <li>• manure is removed regularly and spread on the Operator's land; and</li> <li>• odour is reduced by keeping the poultry houses as clean as possible and ammonia production is reduced by optimising protein levels in the diet.</li> </ul> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the Sector Guidance Note EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.</p>	✓
<b>The permit conditions</b>		
Updating permit conditions	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	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
during consolidation.	<p>meaning as those in the previous permit(s).</p> <p>The operator has agreed that the new conditions are acceptable.</p>	
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, which was developed in consultation with industry having regard to the relevant legislation.	✓
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>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.</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 in the permit.</p>	✓
Emission limits	No emission limits have been added, amended or deleted as a result of this variation.	✓
<b>Operator Competence</b>		
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 our guidance on what a competent operator is.	✓



## 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. Newspaper advertising is only carried out for certain application types, in line with our guidance.

### 1) Public Health England

Response received on 25/07/2016 from
Public Health England (PHE) – CRCE, Bristol
Brief summary of issues raised
<p>PHE notes that the installations have the potential to cause pollution such as fugitive emissions (ammonia, bio-aerosols and particulates) and pollution to ground and surface water in the form of leachate and spillages. Odour and noise also have the potential to cause nuisance and any application being granted needs to ensure these are managed.</p> <p>The applicant has submitted risk assessments and management plans to manage fugitive emissions and odours from this site which have been reviewed.</p> <p>In relation to the odours, the applicants have noted that there have been no complaints received from the community and the area is predominantly used for arable farming. PHE ask that the regulator is satisfied that the bio-aerosol and odour emissions have been assessed, managed and regulated to protect local residents.</p> <p>PHE note that the applicant has a management system to capture complaints and ask that the regulator ensures the system includes a process for identifying and mitigating the source of any odour following substantiated complaints, and this could include details of any monitoring which might be undertaken.</p> <p>The biomass burner which will generate energy from woodchip has been installed at old Oak Farm, there is no H1 assessment included in the application, PHE noted that they could not comment on the impacts on public health as no predicted concentrations have been calculated.</p> <p>PHE noted that their response was based on the assumption that the installation will comply in all respects with the requirements of all relevant domestic and European legislation, including:</p> <p>It was further noted that compliance with the legislation, together with good management and regulation, should ensure that emissions present a low risk to human health.</p>
Summary of actions taken or show how this has been covered
<p>The biomass boilers meet the criteria to screen out from detailed modelling. The proposal is considered low risk if it meets the criteria and therefore no H1 assessment is required. See the Key Issues section above for more information.</p> <p>We have assessed the emissions management proposals outlined in the application and are satisfied the Operator intends to implement mitigation and management techniques in line with our guidance how to comply with our</p>

Environment Permit Conditions 3.1.1, 3.2.1, 3.3.1, and 3.4.1, concerning noise, odour and fugitive emissions included in permit.
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### **Local Authority Environmental Health**

Responses received on 13/07/2016 and 01/08/2016 from
Environmental Health – Forest of Dean District Council
Brief summary of issues raised
The response indicated that the local authority Environmental Health Officer has no significant concerns regarding the risk to the health of the local population from this installation.
Summary of actions taken or show how this has been covered
None required

### **Local Authority Planning Department**

Response received on 31/08/2016 from
Planning – Forest of Dean District Council
Brief summary of issues raised
The response indicated that the local authority has no enforcement matters currently being considered. The conditions applied are considered appropriate to minimise nuisance.
Summary of actions taken or show how this has been covered
Conditions 3.1.1, 3.2.1, 3.3.1, and 3.4.1, concerning noise, odour and fugitive emissions included in permit.

### **Responses not received**

The Health and Safety Executive (HSE), Food Standards Agency (FSA) and Director of Public Health (DoPH) were also consulted; however, consultation responses from these parties were not received.

No representations were received in response to the web publicising.