

Natural Resources Wales permitting decisions

Decision Document – Ystym Colwyn Farm Poultry Unit

Contents

Variation	3
The application number is: EPR/AB3391CD/V003.....	3
The Applicant / Operator is: Ystym Colwyn Farms Limited.....	3
The Installation is located at: Ystym Colwyn Farm Poultry Unit, Ystym Colwyn Farm, Meifod, Welshpool, Powys, SY22 6XT	3
Purpose of this document	4
Structure of this document.....	5
Key issues of the decision.....	6
Receipt of application	6
1. Our Decision	6
2. How we reached our decision	6
3. Consultation on the Application	7
4. The Legal Framework	7
5. The Installation.....	8
5.1 Description of the Installation and related issues	8
5.2 The site and its protection	11
5.3 Operation of the Installation – General issues	12
6 Minimising the Installation’s Environmental Impact.....	13
6.1 Assessment of Odour Impact	13
6 Permit Conditions.....	16
ANNEX 1: Consultation Responses.....	17
A) Advertising and Consultation on the Application	17
1) Consultation Responses from Statutory and Non-Statutory Bodies.....	17
2) Consultation Responses from Members of the Public and Community Organisations	17
a) Representations from Local MP, Assembly Member (AM), Councillors and Parish / Town / Community Councils	17
b) Representations from Community and Other Organisations.....	17
c) Representations from Individual Members of the Public	17

Variation

The application number is: **EPR/AB3391CD/V003**

The Applicant / Operator is: **Ystym Colwyn Farms Limited**

The Installation is located at: **Ystym Colwyn Farm Poultry Unit, Ystym Colwyn Farm, Meifod, Welshpool, Powys, SY22 6XT**

We have decided to grant the permit variation for Ystym Colwyn Farm Poultry Unit operated by Ystym Colwyn Farms Limited.

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

- Table of contents
- Key issues
- The consultation and web publicising responses

Key issues of the decision

Receipt of application

1. Our Decision

Based on the information currently available to us we are currently minded to grant a permit to the Applicant. This would, if issued, allow it to operate the Installation, subject to the conditions in the Permit.

We consider that, in reaching that decision, we have taken into account all relevant considerations and legal requirements and that the permit will ensure that a high level of protection is provided for the environment and human health.

This Application is to operate an installation which is subject principally to the Industrial Emissions Directive (IED).

The permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard conditions appropriate.

2. How we reached our decision

2.1 Receipt of the application

An application to vary permit EPR/AB3391CD/V002 was submitted on 03 October 2018 by John Ward, on behalf of the Applicant; Ystym Colwyn Farm Ltd.

Roger Parry and Partners LLP are planning advisors for the Applicant and have also been involved in the application prior to its submission to Natural Resources Wales (NRW).

The Applicant made no claim for commercial confidentiality. We have not received any information in relation to the application that appears to be confidential in relation to any party.

2.2 Duly Making

In order for us to consider the application duly made we needed more information. We requested further information relating to an incomplete unsigned declaration form. Upon receipt of this information we were able to consider the application duly made.

The application was accepted as duly made on the 22 October 2018. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

3. Consultation on the Application

We placed a copy of the variation application and other documents relevant to our determination on our electronic Document Management System, which acts as our Public Register. Anyone wishing to see these documents could do so on request and arrange for copies to be provided.

3.1 Draft Permit Consultation

We carried out a consultation on our draft decision. This consultation began on **25 October 2019** and end on **22 November 2019**.

4. The Legal Framework

The Permit will be granted, under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an installation as described by the IED

- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that this decision is consistent with its general purpose of pursuing the sustainable management of natural resources in relation to Wales, and applying the principles of sustainable management of natural resources. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in granting the Permit a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions.

5. The Installation

5.1 Description of the Installation and related issues

5.1.1 The Permitted Activities

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities.

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Section 6.9 A(1)(a) Rearing of poultry or pigs intensively in an installation with more than 40,000 places for poultry.	The rearing of poultry in a broiler facility.	To house a maximum capacity of 340,000 birds. From receipt of birds, raw materials and fuels onto the site, to removal of birds and associated wastes from site.
Directly Associated Activity		
Biomass Boilers	Operation of two Biomass Boilers with a capacity of 1138.5kWth each, for site heating and hot water requirements, burning biomass fuel not comprising waste or animal carcasses.	From receipt of raw materials and fuels, to release of combustion products to air and associated wastes removed from site.
Heat Exchangers	Recovery of heat	Three Heat exchangers (on sheds 3,4,5 & 6) to be in constant operation to mitigate the impacts of odour emissions.
Three dirty water tanks.	Storage of dirty water from washing of poultry houses.	Temporary storage of wash down water in underground tanks.

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Fuel storage	Storage of fuel oil for standby generator.	Temporary storage of fuel for use.
Chemical storage	Storage of chemicals for use on site.	Temporary storage of chemicals necessary for operation of the installation

Together, these listed and directly associated activities comprise the Installation.

5.1.2 The Site

The installation is situated in a rural area approximately 5.6km to the East of Llanfyllin. The installation lies within the River Vyrnwy Valley with the ground rising towards hills to the north-west and falling gently towards the River Vyrnwy to the south-east. The River Vyrnwy lies 300 m east of the installation boundary. The installation is not located within any protected habitat sites. The nearest protected site (Bryngwyn Hall Stables and Coach House SSSI) is approximately 2.17 km to the North West.

Within 2 km of Ystym Colwyn Farm there are three other permitted intensive poultry farms and one un-permitted poultry farm that is below the 40,000 poultry places threshold set out in the Environmental Permitting (England and Wales) Regulations 2016.

Figure 1 below shows the green installation boundary with 6 poultry shed buildings (in the centre of the image) and the surrounding receptors.

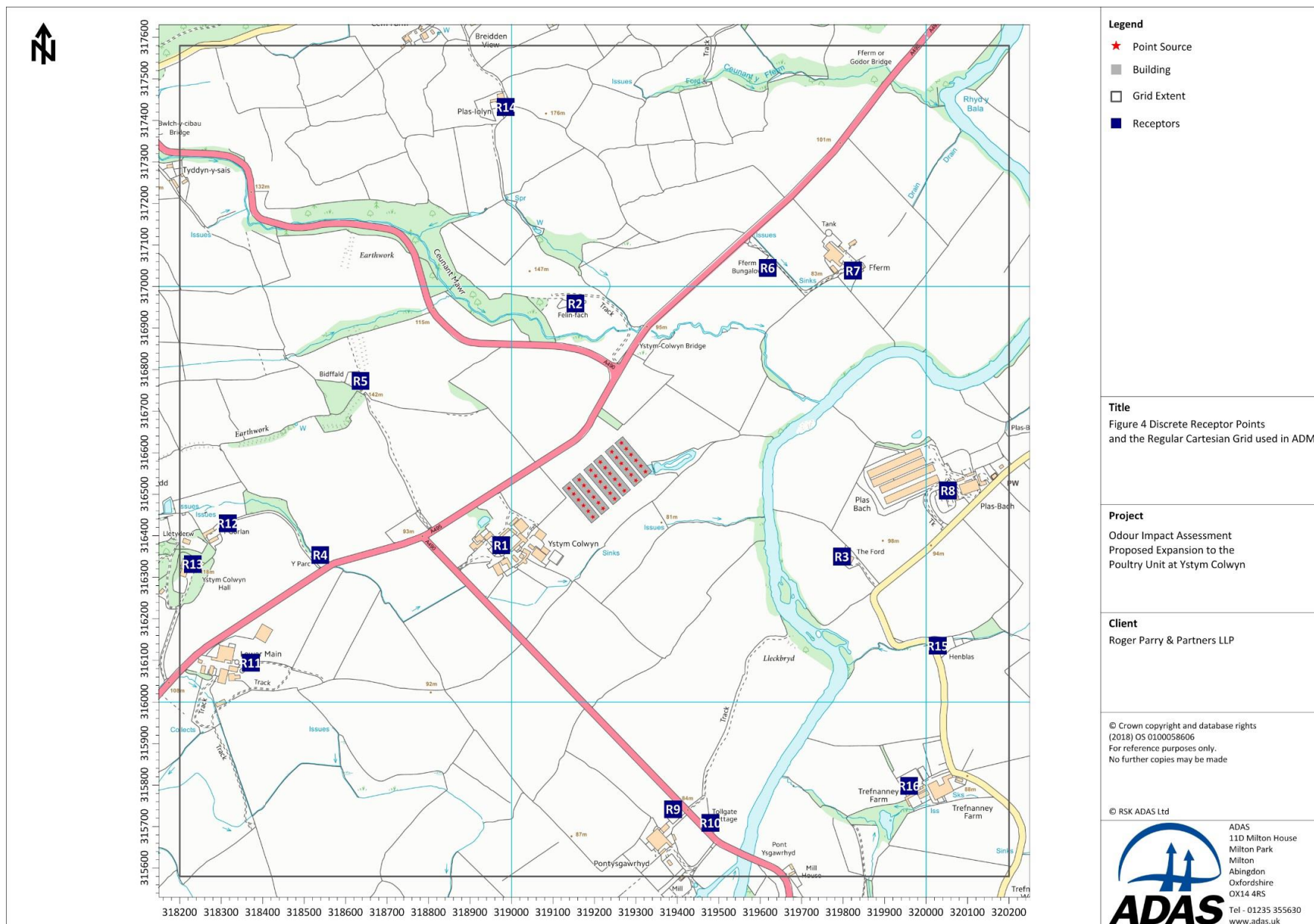


Fig 1. Installation boundary and surrounding sensitive receptors

5.1.3 What the installation does

The installation will comprise of six sheds with capacity for 340,000 broiler birds. Sheds three to six will have MultiHeat Heaters installed to reduce the odour emissions from the installation. Birds will be house at day old chicks and will be grown on a 42-day crop cycle. There will be approximately 7.6 crop cycles per annum. Ventilation is controlled by temperature, all houses will have high velocity roof mounted extraction fans. Water is via a nipple drinking system fitted with cups to reduce leakage and spills, leading to drier litter. Feed is delivered in covered lorries and stored on site in vermin proof steel galvanised bins. Manure will be removed from the houses at the end of the cycles and removed off site. The Operator will utilise the submitted odour management plan to aid odour reductions throughout the broiler crop cycles.

5.2 The site and its protection

5.2.1 Proposed site design: potentially polluting substances and prevention measures

Due to the level of odour emissions from the installation, the Operator will be required to install MultiHeat Heaters to sheds three, four, five and six. The Operator will also employ the submitted odour management plan to aid odour reductions throughout the broiler crop cycles.

5.2.2 Closure and decommissioning

Permit condition 1.1.1 requires the Operator to have a written management system in place which identifies and minimises risks of pollution including those arising from closure. At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site's current or approved future use. To do this, the Operator has to apply to us for surrender, which we will not grant unless and until we are satisfied that these requirements have been met.

A site condition report has been completed providing a baseline for the site at the time of the permit application. No pollution incidents have previously occurred at the site. We consider that the description provided is satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

5.3 Operation of the Installation – General issues

5.3.1 Administrative issues

The Applicant is the sole Operator of the Installation. We are satisfied that the Applicant is the person who will have control over the operation of the Installation; and that the Applicant will be able to operate the Installation so as to comply with the conditions included in the Permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.

5.3.2 Relevant Convictions

Our Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.

5.3.3 Management

The Applicant has stated in the Application that they will implement an Environmental Management System (EMS) that will meet the requirements for an EMS in our “How to comply with your environmental permit guidance”. The Applicant submitted a summary of the EMS with their application which includes sections for; Normal Operations, Maintenance, Incidents and abnormal operations, Complaints, Accidents, Training and Site Security.

All written management systems will be subject to regular review by the Operator.

We are satisfied that appropriate management systems and management structures will be in place for this Installation, and that sufficient resources are available to the Operator to ensure compliance with all the Permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.

5.3.4 Operating Techniques

The Operator will install Multiheat Heaters onto sheds 3,4,5 and 6. This will aid in mitigating the odour emissions from the site. The following pre-operational condition PO3 will be included into the permit;

Table S1.3 Pre-operational measures	
Reference	Pre-operational measures
PO3	The operator will install the Heat Exchangers (MultiHeat Heaters) as detailed in the information submitted to Natural Resources Wales on 21 December 2018 prior to the operation of poultry houses 3,4,5 and 6.

There will be no change to the day to day operating techniques of the installation.

5.3.6 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.

6 Minimising the Installation's Environmental Impact

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, discharges to ground or groundwater, global warming potential and generation of waste.

6.1 Assessment of Odour Impact

We carefully considered the variation application, information submitted with the variation application and further information submitted during the determination, together with the relevant guidance, specifically the Environment Agency's H4 Odour Management Guidance.

The Environment Agency's H4 Odour Management Guidance is widely accepted and used in regulatory odour impact assessments. NRW has adopted this guidance. For new and varying activities, the expected odour exposure can be estimated through, for example modelling to the standards given in Appendix 3 of the guidance.

As set out in the guidance, the modelling method commonly used in the UK calculates a 98th percentile of hourly average odour concentrations over a year. The results are expressed as odour units.

Odour unit values are determined by a standard method given in; BS EN13725; 2003 Air quality. Determination of odour concentration by dynamic olfactometry. One odour unit, 1 OU_E/m³ (European Odour Unit per meter cube of air) is the point of detection. The exposure benchmarks are:

- 1.5 odour units for most offensive odours;
- 3 odour units for moderately offensive odours;
- 6 odour units for less offensive odours.

Odours from poultry rearing are usually placed in the moderately offensive category. Therefore, for their modelling the applicant has used the benchmark of 3.0 OU_E/m³ to assess the potential impact of odour on nearby sensitive receptors. Modelling has been carried out based on emissions from the six poultry houses and areas of the ranging area most likely to be used frequently.

In the Applicants current permit, the mitigation proposal is for 8 air scrubbing units to be installed on sheds 3, 4, 5 and 6, this will incur a significant cost to the Operator.

Within the H4 Guidance it states that we must employ the appropriate measures necessary to prevent the odour pollution or minimise it when prevention is not practicable. The measures that are appropriate will depend on your industry sector and your site-specific circumstances and will take costs and benefits into account. It also states that the degree of pollution increases with the size of the exposed population. In the case of this application two receptors are modelled to be exposed to odour.

When determining what the appropriate measures will be for a site we will factor in needs, costs and benefits. Simply put, the higher the level of pollution the more measures you will be expected to take and the greater the justifiable financial investment will be. Due to the substantial financial investment the Operator currently has on their permit it has been agreed that the Operator will be able to use a technology with a lower financial investment for the business. The proposed odour mitigation will comply with the latest BAT (Best Available Techniques).

Odour Modelling

The Applicant submitted odour modelling as part of this variation. The modelling software used was UK Atmospheric Dispersion Model System (ADMS) version 5.2. The report concluded that the five-year maximum annual 98th percentile hourly mean odour concentrations are below the target range of 3.0 OU_E/m³ at all of the identified discrete receptors apart from receptor 1 (4.95 OU_E/m³, which is the farmhouse associated with Ystym Colwyn Farm. Receptor 1 is Ystym Colwyn Farmhouse itself and is directly associated with the installation. Due to this the limit is increased to 5 OU_E/m³.

Following NRW's review of the Applicant's odour impact assessment and of the audit review of the modelling, we do not agree with the conclusions in their report for the predicted odour impact. Our audit modelling indicates at two receptors (seen on Fig1 as receptor 6 Fferm Cottage and receptor 7 Fferm) the odour is predicted to exceed the 3 OU_E/m³ benchmark.

After detailed discussions with the Applicant they updated their proposals to include mitigation techniques in the form of 'MultiHeat Heaters' to reduce the emissions from the poultry houses. Three heat exchangers will be installed on Houses 3, 4, 5 and 6 to achieve a reduction in odour emissions. The use of mitigation reduction technology is expected odour emissions to acceptable levels.

The Applicant has described a detailed series of measures that will be put into place to minimise odour emissions in the odour management plan. We have compared the measures proposed for the site to the BAT standards in EPR 6.09 How to Comply with your environmental permit for Intensive Farming and are satisfied that the techniques represent appropriate measures for the installation. The techniques described in the documents submitted in support of the application have been incorporated into table S1.2 of the permit as operating techniques. Permit condition 2.3.1 requires the operator to operate the installation in accordance with the techniques listed in Table S1.2 of the permit.

Odour is controlled at intensive agriculture sites in several ways, from the design of the building to the handling of manure. Permit condition 3.3.1 requires that emissions from the activities are free from odour at levels likely to cause pollution outside the site. We are

satisfied that this condition will be sufficiently protective in conjunction with the measures described by the Applicant for minimising odour production at the installation.

6 Permit Conditions

6.1 The permit conditions

6.1.1 Pre-operational conditions

Based on the information in the application, we consider that we need to impose a pre-operational condition. Prior to the poultry houses being populated with birds, sheds 3, 4, 5 and 6 will be required to have the MultiHeat Heaters installed.

ANNEX 1: Consultation Responses

A) Advertising and Consultation on the Application

The Application has been advertised and consulted upon in accordance with Natural Resources Wales Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of all consultation responses have been placed on Natural Resources Wales public register.

1) Consultation Responses from Statutory and Non-Statutory Bodies

Response Received from	
Brief summary of issues raised:	Summary of action taken / how this has been covered

2) Consultation Responses from Members of the Public and Community Organisations

a) Representations from Local MP, Assembly Member (AM), Councillors and Parish / Town / Community Councils

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c) Representations from Individual Members of the Public

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Published by:
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff
CF24 0TP

0300 065 3000 (Mon-Fri, 8am - 6pm)

enquiries@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

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Issued 25 November 2019

Page 18 of 18