Dolidre Farm Broiler Unit

Decision Document

Bespoke permit

The application number is: PAN-002922

The Operator is: Mr Edward Morgan and Mr James Morgan

The Installation is located at: Dolidre Farm, Llanddewi, Llandrindod Wells

We have decided to grant the permit for Dolidre Farm operated by Mr Edward Morgan and Mr James Morgan.

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
- Annex 1 the consultation and web publicising responses

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Key issues of the decision

1 Our decision

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 Application

The Application was received on 24 June 2018 and was duly made on 15 August 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.

2.2 Consultation on the Application

We carried out consultation on the Application in accordance with the EPR and our statutory Public Participation Statement (PPS).

We advertised the Application by a notice placed on our website, which contained all the information required by the IED, including telling people where and when they could see a copy of the Application.

A copy of the Application and all other documents relevant to our determination (see below) are available for the public to view. Anyone wishing to see these documents could arrange for copies to be made.

We sent copies of the Application to the following bodies, which includes those with whom we have “Working Together Agreements”:

- Powys County Council Planning Authority
- Powys County Council Environmental Protection Department

- Food Standards Agency
- Health Protection Agency
- Public Health Wales

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

Further details along with a summary of consultation comments and our response to the representations we received can be found in Annex 1. In this instance no comments were received.

2.2.1 Draft Permit Consultation

We are now carrying out a consultation on our draft decision. This consultation will begin on 28 November 2018 and end on 02 January 2019

3 The Legal Framework

The variation will be issued, 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.

4 The Installation

4.1 Description of the Installation and related issues

4.1.1 The permitted activities

The Installation is subject to the EPR because it carries out an activity listed in Part 1 of Schedule 1 of the EPR:

- Section 6.9 Part A(1)(a)(i) Rearing poultry in an installation with more than 40,000 places.

An installation may also comprise “directly associated activities”, which at this Installation include:

- Biomass Boilers
- Air Scrubbing Units
- Feed Silos
- Dirty Water Tanks

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

4.1.2 The Site

The site lies to the south of Llanddewi Ystradenni, Powys, approximately 8.3km North East of Llandrindod Wells at grid reference SO 10939 67981. The surrounding area is hilly with some woodland. The predominant land use is grassland and grazing.

The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. In addition, the operator has provided a site layout/drainage plan which includes discharge points.

A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.

4.1.3 What the Installation does

The facility will comprise of six poultry houses, with capacity for 280,000 broilers. Sheds 2, 4 ,5 and 6 will have air scrubbing units installed onto them, with sheds 1 and 3 remaining the same as before. Birds will be brought in at day old chicks and the site will be de populated at around day thirty eight. This will be done on an all-in, all-out basis. There will be approximately 7.5 cycle per annum.

4.2 The site and its protection

4.2.1 Proposed site design: potentially polluting substances and prevention measures

There will be six poultry houses, with a combined capacity for 280,000 birds. The working area where vehicles operate is laid to concrete and hard standing. Ventilation is controlled by temperature, and both houses 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 twice a week by a belt system. Dirty wash water will be directed to an underground storage tank prior to being spread on operator controlled land.

4.2.2 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. It is noted that the land has previously been used for free range egg production. 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).

4.3 Operation of the Installation – general issues

4.3.1 Administrative issues

The Applicants are the sole Operator of the Installation. We are satisfied that the Applicant is the persons who will have control over the operation of the Installation; and that the Applicants 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.

4.3.2 Relevant convictions

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

4.3.3 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 on normal operations, maintenance schedule recording, incidents and abnormal operations, complaints, accident/emergency plan, training, installation plans 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.

4.3.4 Accident management

In order to ensure that the management system proposed by the Applicant sufficiently manages the residual risk of accidents, permit condition 1.1.1a requires the implementation of a written management system which addresses the pollution risks associated with, amongst other things, accidents.

The operator has an emergency plan which will be subject to regular review. It includes contingencies for events such as fire, power failure, flood, disease and containment failure.

4.3.3 Site security

The site itself does not have a secure boundary fence. Poultry houses and all store rooms are kept locked and secure, preventing any unauthorised access.

Having considered the information submitted in the Application, we are satisfied that procedures will be in place to ensure that the site remains secure.

4.3.5 Operating techniques

Before bird arrival the house floors will be covered to a sufficient depth of bulk shavings.

The sheds are fan ventilated with a fully littered floor equipped with non-leaking drinking systems. In each of the two existing broiler houses ventilation is provided by side inlets and high velocity ridge extract fans. Gable end fans on each house are fitted to provide additional cooling during times of extreme hot weather.
Ventilation in the new houses and existing house 2 will be drawn through the gable end air scrubbing systems reducing ammonia release by 90% and a reduction in odour release of 40%.
A computer automatically controls ventilation and heating so that heat is not wasted by being drawn out of the building.

Litter is kept loose and friable. The quality is regularly inspected to ensure it does not become excessively wet or dry.

Temperature in the sheds meets the health and welfare needs for the age and number of the birds. Hot water heaters are spaced regularly within the sheds to prevent cold spots and extremes of temperature. The fans are fitted with back draft shutters to prevent drafts and unnecessary heat loss.

Birds are fed a minimum of three diets during their cycle, with gradually reducing levels of protein and phosphorous as bird age increases. Feed is delivered from a UKASTA accredited feed mill and blown into bulk feed bins situated adjacent to the houses, from the feed bins the feed is piped into the houses and distributed to the birds via a pan feeding system.

Fallen stock will be recorded daily and securely stored in vermin proof containers awaiting regular collection by a licenced renderer.

The above measures are designed to reduce emissions, trees and hedges will trap dust particles reducing odour. Ammonia emissions will be reduced by reduced protein feed, maintaining good litter conditions with dry matter content above 60%.

Records of tonnages of litter and wash water removal are recorded, wash water will be spread on operator controlled land.

We have reviewed the techniques proposed by the operator and compared these with the relevant guidance notes. We are satisfied that the techniques represent appropriate measures for the installation in line with BAT standards in EPR 6.09.

4.3.6 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.

4.3.7 Energy efficiency

We are satisfied that the Applicant will ensure that energy is used in the most efficient way possible.

4.3.8 Avoidance, recovery or disposal of wastes produced by the activities

At depletion any remaining litter will be removed from the site and used on operator controlled land with any extra sold to third parties. Records are kept of the quantities, destination and the date of transfer to separate farming businesses.

5 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. All these factors are discussed in this and other sections of this document.

For an installation of this kind, the principal emissions are :

- Ammonia
- Dust
- Odour
- Noise
- Effluent discharges

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring to ensure a high level of protection.

5.1 Assessment of Impact on Air Quality

The applicant has carried out a risk assessment identifying potential risks to human health including dust and ammonia. Operating procedures have been put in place to minimise the risks, in line with BAT procedures. It is considered that if the site is operated in line with these procedures, there is no significant risk to human health as a result of activities at the site.

5.2 Assessment of odour impact

The applicant has submitted detailed dispersion modelling of the impact of odour from the proposed facility.

H4 Odour Management guidance explains that the odour benchmarks are based on the 98th percentile of hourly average concentrations of odour modelled over a year at the site/installation boundary. The 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/m^3 to assess the potential impact of odour on nearby sensitive receptors. Modelling has been carried out based on emissions from the two poultry houses and areas of the ranging area most likely to be used frequently.

The results of the modelling predict the highest maximum odour concentrations at the buildings directly associated with Dolidre. 30 out of the 31 receptors all fall below the benchmark of three odour units. The only receptor to exceed this is Dolidre Farm. As

this property has direct connections to the installation we can raise the benchmark to 6 odour units. The next highest odour is 2.33 odour units. The majority of the receptors fall below one odour unit.

We are satisfied that the risk of odour pollution at nearby receptors is not significant. NRW has assessed the modelling in detail and is satisfied that it accurately represents the predicted odours. It is recognised that this modelling does only represent the expected odour concentrations for 98% of the time and that odours may be higher for the remaining 2% of the time. NRW is not able to ensure that odour impacts on nearby receptors are reduced to zero, but is determined to ensure that they are minimised.

The applicant has submitted an odour management plan (OMP) for the installation as required by EPR 6.09 "*How to Comply with your Permit for Intensive Farming"* because there are sensitive receptors within 400 metres of the installation. The OMP describes the measures and controls in place to minimise odour and includes twice daily olfactory checks. We have compared the measures proposed for the site to the BAT standards in EPR 6.09 and are satisfied that the techniques represent appropriate measures for the installation. The OMP has been incorporated into the operating techniques section of the permit. .

Permit condition 3.3.1 requires that emissions from the activities are free from odour at levels likely to cause pollution outside the site, as perceived by an officer of NRW. 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.

5.3 Assessment of impact to surface and ground water

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

Clean, uncontaminated rainwater from roofs and yard areas will drain to soakaways running along the lengths of the poultry houses. Any lightly contaminated yard wash will be directed to a sealed underground tank.

The permit includes a condition that requires periodic monitoring to be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

5.4 Emissions to sewer

When birds are removed from the poultry houses, the site will be pressure washed, disinfected and dried out prior to the next cycle. All wash waters will be contained in sealed underground tank prior to being spread on operator controlled land. There are no emissions to sewer.

5.5 Fugitive emissions

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions, including dust, and to prevent pollution from fugitive emissions.

5.6 Assessment of noise impact

A risk assessment of the potential impact of noise from the site on nearby sensitive receptors has been carried out by the applicant. Potential sources of noise include vehicles travelling to and from site, ventilation fans, , clean out and bird catching, alarm systems and generators.

Because there are sensitive receptors within 400 metres of the installation. The applicant has submitted a noise management plan (NMP) for the installation as required by EPR 6.09 "*How to Comply with your Permit for Intensive Farming".* The NMP describes the measures and controls in place to minimise noise and includes twice daily inspections of the site.

Roof mounted ventilation fans will be subject to regular, end of cycle maintenance by qualified electricians and noisy fans will be isolated and an electrician notified. Deliveries will be time restricted to minimise lorry noise. All tests will take place during normal hours. The movement of vehicles outside of the installation boundary is not within the regulatory scope of the Environmental Permitting (England and Wales) Regulations 2016 and is a matter for the local planning authority.

We have compared the measures proposed for the site to the BAT standards in EPR 6.09 and are satisfied that the techniques represent appropriate measures for the installation. The NMP has been incorporated into the operating techniques section of the permit.

Permit condition 3.4.1 requires that emissions from the activities are free from noise at levels likely to cause pollution outside the site, as perceived by an officer of NRW. 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.

5.7 Impact on Habitats sites, SSSIs, non-statutory conservation sites etc.

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 has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites.

The following sites have been considered:

SAC (within 10km)
River Wye SAC UK0013007 (0.5km to the West)

SSSI (within 5km)

River Ithon SSSI (0.5km to the West)
Ithon Valley Woodland SSSI (2km to the South)
Maelienydd SSSI (2.6 km to the North East)
Cwmsaise SSSI (3.5km to the East)
Far Hill Meadow SSSI (3km to the East)
Cae Cwm-rocas SSSI (4km to the South)
Cae Llwyn SSSI (4.6km to the South)
Twenty-Five Acre Wood SSSI (4.6km to the South West)
Coed Bryn-Person SSSI (4.69km to the North West)

Several areas of ancient semi natural woodland (within 2km).

The applicant has carried out detailed modelling of the potential impact of dispersion and deposition of Ammonia (NH_3) from the site. The submitted report concludes that the maximum predicted NH_3 process contributions (PCs) from the existing and proposed poultry units may exceed the lower critical level (CLe) for NH_3 at several areas of Ancient Woodlands, SSSI and SACs.

The applicant then completes detailed modelling where many of the areas fall below the critical level thresholds. Cwmsaise SSSI 2.9%, River Ithon SSSI 25.5%, Dol-y-Dre Wood Ancient Woodland 182.1%, Public Wood Ancient Woodland 213.7% , River Wye SAC 25.5% all fall above the 1% threshold. The applicant has proposed that they will put air scrubbing units and use the biomass boilers for indirect heating to help reduce these emissions further. The air scrubbing units will be placed on four out of the six sheds and will reduce the ammonia from the sheds by up to 90%. The indirect heating will further reduce the ammonia by approximately 35% (a figure accepted by both NRW and the EA). By using these two methods the amount of ammonia emitted will be reduced from the site. Although this variation is to double the number of birds, when taking into account the mitigation methods, the impact from the number of birds will be less than is currently permitted. Therefore the overall emissions from the site will be reduced from current practice.

The modelling report further concludes that the maximum predicted nitrogen deposition from Process Contributions (PCs) exceed the critical load (CLo) at Ithon Valley Woodlands 1.7%, Cwmsaise 1.5, Far Hill Meadows 1.6%, River Ithon 13.2%, River Wye 13.2%, Dol-y-dre AW 141.9% and Public Wood AW 166.5%. As mentioned above, air emissions will improve from current levels using the proposed mitigation methods

From looking at aerial photos of the area the Dol-ydre woodland is a plantation and therefore the critical level can rise to 3µg/m^3.

OGN Form 1 and CRoW Appendix 4 have been completed and forwarded onto our internal Natural Resource Management team for consultation. Full details of the assessment carried out of the potential effect of ammonia emissions from the proposed site on the SAC and SSSIs detailed above are detailed in the forms. As a result of this variation and with use of scrubbers and indirect heating there will be a

reduction in around 20% from what the site is currently emitting. The forms were sent to our internal Natural Resource Management team for consultation. The forms are available from our public register.

6 Setting ELVs and other Permit conditions

6.1 Translating BAT into Permit conditions

Article 14(3) of the Industrial Emissions Directive (IED) states that BAT conclusions shall be the reference for setting the permit conditions to installations covered by the Directive. As a result of the Commission Implementing Decision (EU) 2017/302 of 15 February 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs, the format of our Permit for the intensive farming sector has been updated. Appendix 1 of the Permit sets out generic conditions which apply to all sites. Appendix 2 sets out site specific conditions based on the activities being carried out.

6.2 Monitoring

Monitoring should be carried out for the parameters listed in Appendix 1, Schedule 3 of the permit using the methods and to the frequencies specified in Table S3.1 for broilers. These monitoring requirements have been introduced in order to demonstrate compliance with the best available techniques (BAT) conclusions for the intensive rearing of poultry or pigs, as set out in the Commission Implementing Decision (EU) 2017/302 of 15 February 2017.

6.3 Reporting

We have specified reporting requirements in Appendix 2, Schedule 4 of the Permit to ensure compliance with permit conditions and to monitor the efficiency of farming activities at the site in line with BAT.

ANNEX 1: Consultation Reponses

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 Public Health Wales	
Brief summary of issues raised:	**Summary of action taken / how this has been covered**
Ammonia and Odour Plans	Documents submitted in application
Dust	Concerns covered in permit
On-Site liquid storage	All liquid storage will be bunded and crash proof.
Noise nuisance	No complaints have been made prior to this variation
Management Systems	Site has its own management plans

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

Response Received from	
Brief summary of issues raised:	**Summary of action taken / how this has been covered**
None	N/A

b) Representations from Community and Other Organisations

Response Received from

Brief summary of issues raised:	Summary of action taken / how this has been covered
None	N/A

c) Representations from Individual Members of the Public

Response Received from	
Brief summary of issues raised:	**Summary of action taken / how this has been covered**
None	N/A