

Natural Resources Wales permitting decisions

Pwllpridd Free Range Poultry Unit

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Substantial Variation

The variation number is: EPR/AB3792ZU/V002

The operator is: Mr Endaf Jenkins

The Installation is located at: Pwllpridd Free Range Poultry Unit, Pwllpridd, Lledrod, Aberystwyth, Ceredigion, SY22 6XT

We have decided to issue the variation for Pwllpridd Free Range Poultry Unit operated by Mr Endaf Jenkins.

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

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Key issues of the decision

1. Receipt of application

The application was received on 26/04/2021 and was duly made as of 01/10/2021 following the receipt of additional information. 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 the determination.

1.1 Confidential information

No claim for commercial or industrial confidentiality has been made. We have not received information in relation to the Application that appears to be confidential in relation to any party.

2. 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.

We advertised the Application by a notice placed on our website, which contained all the information required by the EPR/IED, including advising people where and when they could see a copy of the Application. The consultation started **07/10/2021** and ended **05/11/2021**.

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”:

- Food Standards Agency
- Health and Safety Executive
- Public Health Wales

- Ceredigion County Council - Planning Department
- Ceredigion County Council - Environmental Health

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 have received can be found in Annex 1. We have taken all relevant representations into consideration in reaching our determination.

2.1 Draft Permit Consultation

We have carried out a consultation on our draft decision. This consultation began on 15/12/2021 and ended on 17/12/2021.

3. Requests for further information

In order for us to be able to consider the Application duly made, we needed more information. We requested the following:

- Confirmation regarding the application contact
- An Ammonia Assessment
- A Manure Management Plan
- An Odour Assessment
- An updated Site Plan
- An updated Non-technical Summary

Upon receipt of this information we were able to consider the application Duly Made.

There were informal requests for information to the applicant during determination via e-mail. We asked for confirmation that the watercourse running through the new ranging area would be culverted. We also asked if the new sheds would have a manure belt as per the existing sheds. Additionally, clarification was requested regarding the emission points to air. See emails dated 02/11/2021, 04/11/2021 and 24/11/2021.

A copy of the e-mails requesting further information were placed on our public register, as were the responses when received.

4. The installation

The regulated facility is an installation which comprises the following activity listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations:

- Section 6.9 A(1)(a) - Rearing of poultry or pigs intensively in an installation with more than 40,000 places for poultry.

There are no additional primary activities proposed as part of this variation, but the applicant has requested an increase in the limit of the existing activity, from 48,000 free range laying birds to 80,000.

An installation may also comprise ‘directly associated activities’, which at this installation includes:

- Dirty water tank
- Feed Silos
- Ground Source Heat Pump
- Manure storage
- Fuel tank
- Air Scrubbing Unit

This variation will add the ‘Ground Source Heat Pump’, ‘Air Scrubbing Unit’ and ‘Manure storage’ as a directly associated activity.

5. Legislation

The Permit 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 (SMNR) in relation to Wales, and applying the principles of SMNR. 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 issuing 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.

Environment Wales Act 2016 – Biodiversity and resilience of ecosystems duty

Section 6 of the Environment Wales Act 2016 requires that we seek to maintain and enhance biodiversity in the exercise of our functions, and in so doing promote the resilience of ecosystems, in a manner that is consistent with the proper exercise of our functions. NRW is satisfied that in this case we have taken into account and had due regard to this duty in so far as it is consistent with the function of determining an application for an EPR permit.

6. Proposed Changes

As part of this substantial variation, the applicant is proposing the following changes to the permit:

- Increase in the maximum number of free-range laying birds from 42,000 birds to 80,000 birds
- An additional poultry unit and increase in site boundary to allow for an additional ranging area
- An additional directly associated activity: 'Ground Source Heat Pump', 'Air Scrubbing Unit' and 'Manure Storage'.
- Updated operational techniques and site plan in line with the above changes

7. The site

The site of the existing and proposed free range egg-laying chicken houses at Pwllpridd is in a rural area, approximately 630 m to the south-south-east of the village of Lledrod in Ceredigion. The surrounding land is used largely for livestock farming and grazing, but there are also some wooded areas nearby. The site is at an altitude of around 220m in the valley of the Afon Wyre with the land rising towards hills and mountains to the east and west.

The new poultry house and ranging area will be constructed to the east of the existing house at the site. There is a road (not part of the permitted boundary) which will be between the existing and new sheds and ranging areas.

The operator has provided updated plans which we consider is satisfactory, showing the location of the existing and new poultry units, ranging areas and relevant drainage

pathways. These plans are included in the permit and the operator is required to carry out the permitted activities within the site boundary.

7.1 Site condition report

The applicant has provided an updated Site Condition Report with the application. The poultry units and ranging area of both the existing and new poultry units are located within two intensive pasture fields. There are no noted pollution incidents or historical land uses known which may have effected this land previously.

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).

8. 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.

The following screening distances for the different sites have been used:

- 5 km from the installation for Special Area of Conservation (SAC), Special Protection Area (SPA), RAMSAR sites
- 2 km from the installation for Site of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Local Nature Reserves (LNR) and Ancient Woodlands sites

These distances are in line with the current guidance at the time the applicant submitted the application.

The following sites were identified:

- Grogwynion SAC
- Gro Ystwyth SSSI
- Comin Esgairmaen SSSI
- Rhos Cross Inn SSSI
- Llyn Eiddwen SSSI
- Cors y Sychnant SSSI

- Cors Penbwlch SSSI
- Coed y Crychudd SSSI
- Gro Ystwyth SSSI
- Various Ancient Woodland sites

A full assessment of the application and the potential of the proposal to affect the sites has been carried out as part of the permitting process.

SAC Assessment

A OGN200 Form 1 (Habitats Regulations Assessment) was completed to assess the impact on the Grogwynion SAC, following appropriate assessment, it was concluded that there would be no adverse effect on the integrity of the site. The relevant Conservation Officer reviewed the assessment and agreed with its conclusions (see signed Form 2). This assessment is available to view on the public register.

SSSI Assessment

An Appendix 4 was completed to assess the impact on the various SSSIs identified and it was concluded that the proposal is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest. The relevant Conservation Officer reviewed the assessment and agreed with its conclusions. This assessment is available to view on the public register.

Non-statutory Sites Assessment

There are approximately 12 Ancient Woodland (AW) sites within 2 km of the proposed site. The process contribution (PC) is <100 % of the ammonia critical level and the nitrogen deposition critical load for all the Ancient Woodland sites and screens out as insignificant, therefore no significant impact is considered likely.

9. Environmental Risk Assessment

9.1 Air

The applicant has assessed the potential emissions of Ammonia to air from the additional birds/shed proposed against the relevant air quality standards and has estimated the predicted potential impacts of the variation on local air quality. The existing emissions are included within the background levels used in the assessment.

Critical Levels and Critical Loads have been used as a benchmark for assessing the risk of air pollution impacts to ecosystems.

Three scenarios were considered:

1. Scenario 1 which has been based the maximum outlet concentration from the manufacturers of the ammonia scrubbing equipment and the range being used by the birds 7.34 % of the time. The applicant states this is in line with peer reviewed literature. This equates to an emission factor of 0.016 kg-NH₃/bird/year
2. Scenario 2 which has been based the maximum outlet concentration from the manufacturers of the ammonia scrubbing equipment and the range being used 12 % of the time. The applicant states this is based on the higher range of data from peer reviewed literature. This equates to an emission factor of 0.027 kg-NH₃/bird/year
3. Scenario 3 which has been based the maximum outlet concentration from the manufacturers of the ammonia scrubbing equipment and the ranging emissions have been based on birds ranging for 20 % of the time. This figure equates to 0.045 kg-NH₃/bird/year which is in line NRW guidance.

The Ammonia Assessment concluded that the Process Contribution (PC) from the proposed variation, when considered in isolation, will not exceed 1 % of the relevant Critical Levels or Critical Loads of the protected sites identified and therefore the emissions can be screened out as being insignificant. This is in line with 'GN 020 How to interpret the results from you screening or modelling exercise for Ammonia Emissions'.

Emission limits

There are no emission limits on the existing permit, and we have decided that emission limits should not be set for the parameters listed in the permit as a result of this variation.

9.2 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.

As per the existing activity, 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. 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 the sealed underground tank.

The new ranging area has an un-named drain running through it which the applicant has said is mostly dry. This watercourse is classed as an 'ordinary watercourse' (i.e. it does not form part of a main river). The applicant has proposed to culvert this drain which will provide adequate prevention against fugitive emissions. However, we have advised the applicant to check with the relevant local authority if an "ordinary watercourse consent" is required. Please see email dated 17/11/2021.

9.3 Odour

The Environment Agency's H4 Odour Management Guidance is widely accepted and used in regulatory odour impact assessments. NRW has adopted this 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, OUE/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, the benchmark of 3 OUE/m³ has been used to assess the potential impact of odour on nearby sensitive receptors. The applicant submitted an Odour Air Dispersion Modelling report that used ADMS 5 software.

This assessment concluded that out of the 10 odour receptors identified, one breached the benchmark of 3 OUE/m³. The applicant confirmed that this receptor was owned by the Operator and as such does not need to be considered as “sensitive”. All other receptors were below a maximum annual 98th percentile hourly mean odour concentration of 1 OUE/m³.

As there are receptors within 400 metres of the installation, the applicant has described a detailed series of measures that will be put in place to minimise odour emissions in the odour management plan. They have identified the following sources of odour:

- Feed selection, delivery and storage
- Issues with ventilation system and inadequate air movement within the house
- Litter management
- Carcase disposal
- House clean out

The odour plan details various measures to mitigate odour issues including:

- No on-site milling and mixing of feed and sealed delivery to minimise atmospheric dust
- Food to be stored in sealed containers
- Storing carcasses in sealed containers to await collection by a licensed renderer on a regular basis
- The ventilation system will be suitably designed and regularly adjusted according to age and requirements of the flock
- Litter quality to be maintained through ventilation control, insulated walls and ceilings and concrete floors
- De-littering to be avoided during weekends during the summer

- No litter is to be stored within the installation boundary and will be used in compliance with a Manure Management Plan
- House clean carried out by specialist contractors using DEFRA approved chemicals observing correct dilution rates.

We have compared the measures proposed to minimise odour at 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 following this variation. The odour management plan will be 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. 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.

9.4 Noise

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 noise management plan identifies potential risks from the operation and describes the measures and controls in that will be put place to minimise noise and vibration.

Potential sources of noise will include:

- Large vehicles travelling to and from the farm for deliveries, collections, litter removal and dirty water removal
- Small vehicle movements
- Feed transfer from lorry to bins
- Ventilation fans
- Alarm systems / Standby Generator
- Chickens
- Personnel

The noise management plan includes the following risk management:

- All vehicles are required to be driven onto and offsite with due consideration for neighbours and will be timed between 07.00 and 20.00hrs
- All vehicles regularly maintained to minimise engine noise.
- Roadways are free from potholes and maintained in good order.
- Route selection made with due consideration to nearby neighbours.
- Efficient extraction fans matched to size and population within house.
- Regularly maintained. Ammonia Scrubber on unit 3, regularly maintained
- Alarm systems will be tested weekly (mid-Monday morning to reduce disturbance)

We have compared the measures proposed to minimise odour at 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 noise management plan has been incorporated into the operating techniques section of the permit.

We are satisfied that vibration is unlikely to be an issue at the installation. The nature of the intensive farming operation means that there are no significant sources of vibration on site, therefore vibration is not required as part of the noise management plan.

Permit condition 3.4.1 requires that emissions from the activities are free from noise and vibration 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 noise and vibration production at the installation.

9.5 Fugitive emissions

The applicant has provided a fugitive emission plan and a document containing 'Technical Standards' which identifies the sources of fugitive emissions and outlines how risks will be managed.

To reduce the risk of fugitive dust emissions:

- Suitable bedding will be used
- Feed will be delivered in sealed systems, stored in purpose-built feed silos and piped directly into the sheds
- Ventilation systems are operated to achieve optimum humidity levels for the stage of production in all weather and seasonal conditions
- Litter will be removed carefully during clean out and temporarily be stored in a covered building every 4 days, trailers transporting litter off site will be sheeted before leaving

The reduce the risk of contaminated water entering nearby drainage ditches:

- Spillages of litter on yard areas during cleanout swept up
- Areas around buildings will be kept free from build-up of manure, slurry and spilt feed.
- Diverter bungs will be used during wash down periods to prevent the contamination of surface water systems and to divert the wash water to the dirty water tanks
- The dirty water tanks will be built to confirm to specifications in SGN EPR6.09 'How to comply with your environmental permit for intensive farming' and spent disinfectants will be added.
- The fuel oil storage tank for the generator is bunded. The bund meets the requirements of the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (SSAFO Regulations) and meets the requirements outlined in SGN EPR6.09 'How to comply with your environmental permit for intensive farming'. The tank will be regularly inspected.

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 and to prevent pollution from fugitive emissions.

10. Monitoring

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

These monitoring requirements have been imposed in line with in EPR 6.09 'how to comply with your environmental permit for intensive farming'.

11. 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. We made this decision in accordance with EPR 6.09 "*How to Comply with your Permit for Intensive Farming*".

12. Operating techniques

We have reviewed the techniques used by the operator and compared these with EPR 6.09 'how to comply with your environmental permit for intensive farming' and we consider them to represent appropriate techniques for the facility.

Manure Management Plan

The applicant has confirmed that as per the existing sheds, manure from the new sheds will be removed by a belt system every four days. Immediately following depopulation, litter is removed from the poultry houses and stored in a covered manure collection building awaiting for collection and/or to be spread on operator controlled land. All manure from the additional 32,000 birds permitted as a result of this variation will be exported off the farm to be used an Aerobic Digestion Plant or sold to a logistics company.

Carcass Management

All carcasses will be disposed of in accordance with the current Animal By-Products Regulations. They will be stored in sealed vermin proof containers awaiting regular collection by a licenced renderer. Records of dates, quantities and destination will be held on site.

13. The permit conditions

13.1 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.

13.2 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.

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
None	N/A

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