Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Penrhos Farm Poultry Unit operated by Penrhos Poultry Ltd.

The permit number is EPR/VP3236NH/A001

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Ammonia Impacts

There is one Special Areas of Conservation (SAC) within 10km of the site. There are seven Sites of Special Scientific Interest (SSSI) within 5km of the site. There are 14 Local Wildlife Sites (LWS) and five sites of Ancient Woodland (AW) within 2km of the site.

Assessment of Special Areas of Conservation (SAC)

The River Wye SAC is approximately 9km south of the farm. Natural England have confirmed that no assessment of impacts from ammonia are necessary with regards to the SAC, therefore no further assessment of this is required.

Ammonia Assessment – SSSI's

The following trigger thresholds have been applied for the assessment of SSSI's. If the Process Contribution (PC) is below 20% of the relevant critical level (CLe) or

critical load (CLo) then the farm can be permitted with no further assessment. Where this threshold is exceeded an in-combination assessment and/or detailed modelling may be required.

Screening using the Ammonia Screening Tool (v4.4) has determined that the PC for ammonia on all SSSI's within 5km of the application site are under the 20% significance threshold and can be screened out as having no likely significant effect. See results in Table 1 below.

Where the precautionary level of 1µg/m^3 is used, and the process contribution is assessed to be less than 20% the site automatically screens out as insignificant, and no further assessment of ammonia contributions to nitrogen deposition and acidification is necessary. In these cases the 1µg/m^3 level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no damage on these sites.

Table 1 – Ammonia Emissions – SSSI's

Site	Critical Level Ammonia µg/m^3	Predicted Process Contribution µg/m^3	% of Critical Level
Queestmoor Meadow	1*	0.033	3.3
Upper Welson Marsh	1*	0.024	2.4
Bushy Hazels & Cwmma Moors	1*	0.022	2.2
Quebb Meadow	1*	0.032	3.2
Flintsham & Titley Pools	1*	0.054	5.4
Bradnor Hill Quarry	1*	0.059	5.9
Stanner Rocks	1*	0.022	2.2

*Precautionary critical level of 1 µg/m^3 applied

Ammonia assessment – LWS / AW

The following trigger thresholds have been applied for the assessment of LWSs and sites of AW. If the PC is below 100% of relevant Critical Level or Load, then the farm can be permitted.

Screening using Ammonia Screening Tool v4.4 has indicated that emissions from Penrhos Farm Poultry Unit will only have a potential impact on sites with a precautionary critical level of 1 µg/m^3 if they are within 421m of the emission source. Screening indicates that beyond this distance, the Process Contribution at conservation sites is less than 1ug/m^3 (i.e. less than 100% of the 1ug/m^3 critical level) and therefore beyond this distance the PC is insignificant. In this case all LWS and AW sites below are beyond this distance, apart from Rodds, Penrhos, Oxpasture and Greenwoods LWS and Penrhos Woodland site of Ancient Woodland (see Table 2 below).

Where the precautionary level of 1µg/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 ammonia contributions to nitrogen deposition and acidification is necessary. The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

Table 2 – LWS / AW Assessment

Site	Designation	Distance from site (m)
Land at Millbank Wood (1)	LWS	2,000m
Land at Lilwall Farm	LWS	1,575m
Land at Rhue Ville	LWS	1,992m
Land at Lilwall Farm (2)	LWS	1,656m
Lyonshall Park Wood	LWS	1,221m
Disused railway, Kington to Leominster	LWS	1,103m
Land at Rodds Farm	LWS	752m
Land at Mill Farm	LWS	1,172m
Land at Rodds Farm (2)	LWS	881m
Land at Bullocks Mill	LWS	1,320m
Lyonshall Churchyard	LWS	1,923m
Piers Grove Wood and adjoining field	LWS	914m
River Arrow	LWS	857m
Oxpasture and Green Woods	AW	542m
Lyonshall Park Wood	AW	1,216m
Piers Grove Wood	AW	915m
Woodland Name: un named	AW	1,054m

Rodds, Penrhos, Oxpasture and Greenwoods LWS and Penrhos Woodland site of Ancient Woodland are within 421m of the emission source, therefore they were screened using the Ammonia Screening Tool (v4.4). This has determined that the process contributions of ammonia is below the 100% significance threshold. The process contributions of acid and N deposition are slightly above the 100% significance threshold (100.1%), however because of the conservative nature of the tool it has been determined that the actual deposition will be lower than 100%. Therefore it is possible to conclude no damage to these sites from the installation, and no further assessment is required. See results below.

Table 3 – Ammonia emissions – LWS / AW

Site	Critical Level Ammonia µg/m^3	Predicted Process Contribution µg/m^3	% of Critical Level
Rodds, Penrhos, Oxpasture and Greenwoods LWS	3*	1.929	64.3%
Penrhos Woodland AW	3*	1.929	64.3%

*Critical level value of 3 µg/m^2 used as there are no protected lichen/bryophyte species shown on the easimap layer

Table 4 – Nitrogen deposition – LWS / AW

Site	Critical Load kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Rodds, Penrhos, Oxpasture and Greenwoods LWS	10	10.017	100.1%
Penrhos Woodland AW	10	10.017	100.1%

*Critical load values taken from APIS website (www.apis.ac.uk) – 05/08/2013

Table 5 – Acid deposition

Site	Critical Load keq/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Rodds, Penrhos, Oxpasture and Greenwoods LWS	1.73	0.715	41.4%
Penrhos Woodland AW	1.73	0.715	41.4%

*Critical load values taken from APIS website (www.apis.ac.uk) – 05/08/2013

Biomass Boiler Assessment

In line with the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms", an assessment has been undertaken to consider the proposed addition of the biomass boilers.

This guidance states that the Environment Agency has assessed the pollution risks and concluded that air emissions from small biomass boilers are not likely to pose a significant risk to the environment or human health providing certain conditions are met. Therefore a quantitative assessment of air emissions will not be required where:

(i) the fuel will be derived from virgin timber, miscanthus or straw, and;

(ii) the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;

(iii) the aggregate boiler net rated thermal input is:

A. less than 0.5MWth, or;

B. less than 1MWth where the stack height is greater than 1 metre above the roof level of adjacent buildings (where there are no adjacent buildings, the stack height must be a minimum of 3 metres above ground), and there are:

- no Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest within 500 metres of the emission point(s);
- no National Nature Reserves, Local Nature Reserves, ancient woodlands or local wildlife sites within 100 metres of the emission point(s), or;

C. less than 2MWth where, in addition to the above criteria for less than 1MWth boilers, there are:

- no sensitive receptors within 150 metres of the emission point(s).

The biomass boiler meets the requirements of criteria B above, as the boiler is 0.955MW and the stack height is greater than 1m above the roof level of adjacent buildings, and there are no conservation sites within the screening distances. Therefore no further assessment was required.

Groundwater/Soil Monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain condition 3.1.3 relating to groundwater monitoring. However, the Environment Agency's H5 Guidance states **that it is only necessary for the operator to take samples** of soil or groundwater and measure levels of contamination where the evidence that there is, or could be existing contamination and:

- The environmental risk assessment has identified that the same contaminants are a particular hazard; or

- The environmental risk assessment has identified that the same contaminants are a hazard and your risk assessment has identified a possible pathway to land or groundwater.

H5 Guidance further states that it is **not essential for the Operator** to take samples of soil or groundwater and measure levels of contamination where:

- The environmental risk assessment identifies no hazards to land or groundwater; or
- Where the environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historic contamination by those substances that present the hazard; or
- Where the environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historic contamination by those substances that pose the hazard.

The site condition report for Penrhos Farm Poultry Unit (*Site Condition Report, 20th March 2014*) demonstrates that there are no hazards to land or groundwater and no historic contamination on site that may present a hazard. **Therefore, although this condition is included in the permit, no groundwater or soil monitoring will be required at this installation as a result.**

Odour

The operator has provided an Odour Management Plan (reference *Odour Management Plan – Penrhos Poultry Farm Unit*) with the application, as there is one sensitive receptor within 400m of the installation located 370m north west of the site.

Potentially significant sources of odour are: broiler house ventilation fan outlets; carcass storage and disposal; litter removal; washing operations; and litter storage. Odour is expected to peak during catching and litter removal.

Mitigation techniques on site include, but are not limited to, the following: staged protein reduction diets for age of poultry; ventilation to prevent humidity build up; leak proof drinking systems that are inspected twice a day to prevent wet litter; integrity of buildings kept sound to prevent ingress if water; spills deal with promptly; carcases stored in sealed vermin proof containers and collected frequently; containment of all wash water; and washout periods timed to avoid weekends and bank holidays. There is also a complains system in place.

The OMP has been assessed using Environment Agency Guidance *H4 Odour Management – How to Comply with your Environmental Permit* and the *Poultry Industry Good Practice Checklist*. We are happy that the control and contingency measures on site are sufficient to control odorous emissions from the site. We have therefore approved the Odour Management Plan for Penrhos Farm Poultry Unit. The OMP will be reviewed every year; or sooner if an odour complaint is received.

Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met Yes
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application. Refer to key issues section above for further information regarding the Industrial Emissions Directive (IED).	✓
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Site condition report	The operator has provided a description of the condition of the site. We consider this description is satisfactory. The decision was taken in accordance with our guidance on site	✓

Aspect considered	Justification / Detail	Criteria met Yes
	condition reports and baseline reporting under IED– guidance and templates (H5).	
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites for the reasons outlined in the Key Issues section. An Appendix 11 Assessment for SAC's and an Appendix 4 Assessment for SSSI's has been saved to EDRM for information only on 29/04/2014. An 'other nature conservation sites' proforma was saved to EDRM for information on 29/04/2014.	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The operator has proposed the following key techniques for the poultry operations: • Dirty water storage facilities are in place on site; • Nipple drinkers are used to reduce wastage of water and maintain dry litter; • Chemical storage is within a purpose-built store on site that is fully bunded; • All housing is well insulated and have a damp-proof course to reduce condensation and heat loss; • Each broiler house is monitored by a computer	✓

Aspect considered	Justification / Detail	Criteria met Yes
	system which automatically records and controls humidity and temperature; • Heating will be provided by biomass boilers using sustainable wood chip. The operator has proposed the following key techniques with regards to the biomass boilers on site: • the fuel is derived from virgin timber; • the biomass boiler appliance and it's installation meets the technical criteria to be eligible for the Renewable Heat Incentive. The proposed techniques for priorities for control are in line with the benchmark levels contained in Sector Guidance Note EPR6.09 'How to comply with your environmental permit for intensive farming (version 2)' Technical Guidance Note and we consider them to represent appropriate techniques for the facility. We consider that the operating techniques specified in the permit reflect the BAT for the installation.	
The permit conditions		
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.	✓
Raw materials	We have specified limits and controls on the use of raw materials and fuels. We have specified that only virgin timber (including wood chips and pellets), miscanthus or straw shall be used as a fuel for the biomass boiler. These materials are never to be mixed with, or replaced by, waste.	✓
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was	✓

Aspect considered	Justification / Detail	Criteria met Yes
	taken in accordance with RGN 5 on Operator Competence.	
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	✓

Annex 2: Consultation and web publicising

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

The following organisations were consulted, however no response was received:

- Health and Safety Executive;
- Herefordshire County Council – Planning department;
- Herefordshire County Council - Environmental Health department.

This proposal was also publicised on the Environment Agency's website between 23/04/2014 and 22/05/2014, but no representations were received during this period.