

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for Long Cut Farm Poultry Unit operated by **Mr Adrian Wilcox, Mrs Elena Wilcox and Mrs Jean Wilcox (trading as JE & AJ Wilcox)**.

The permit number is **EPR/ZP3331RH**

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

## Purpose of this document

This decision document:

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

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

## Structure of this document

- Description of main features of the installation.
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising

## **Description of the main features of the Installation**

The installation is centred on National Grid Reference SP 52808 17145. The new installation is located approximately 600 m North East of Heathfield Village and approximately 2 kilometre South of Weston on the Green

The installation is operated by Wilcox, Wilcox and Wilcox. The installation is a new facility and there are no current buildings within the installation boundary.

The farm will operate with a capacity of **300,000** broilers and include six poultry buildings.

Hence, the facility is required to be permitted as a scheduled activity under Environmental Permitting Regulations as follows;

*Section 6.9 A (1) (a) (i) Rearing of poultry intensively in an installation with more than 40,000 places*

All poultry houses are designed to be well insulated with concrete flooring. High velocity ridge fans are in place for building ventilation. Gable fans are in place for hot weather conditions. Birds arrive on site as day old chicks. As the birds grow the ventilation flow rate and building temperature is varied to suit bird health.

The birds will arrive as day old chicks and the average bird cycle will be 28 to 38 days plus approximately 10 days during which the houses are cleaned out. There will be on average 7 to 7.5 crop cycles per year.

Poultry feed already milled is brought onto site and stored in fully enclosed bins. Diets are formulated to suit the stage of growth. Water is provided via nipple drinkers designed to minimise water leakage.

Energy efficiency has been incorporated into the installation design with energy efficient fans controlled thermostatically and low energy lighting.

Mortalities are removed from the buildings daily, stored in a secure container and the numbers recorded. The carcasses are removed for off-site disposal under the National Fallen Stock Scheme.

Litter is stored within the installation boundary for usage in a single 1,239 KW thermal input poultry litter boiler. Any litter not fed to this boiler is removed from the houses and spread to land including land owned by the operator in accordance with a manure management plan. Details of the quantities and dates of any litter removed from the site are recorded.

Wash down and disinfection takes place at the end of each cycle. The dirty wash water is collected in two dedicated tanks. Clean water is discharged via stone trenches acting as soak aways into a surface water course with final discharge into the River

The installation is situated within 10 km relevant screening distance of one European Statutory Site Oxford Meadows (SAC). There are six Sites of Special Scientific Interest within the 5 km screening criteria. There are thirteen other conservation sites within the 2 km of this installation.

There are sensitive receptors within 400 metres of the installation and in line with our guidance Odour and Noise Management Plans are in place to minimize risk of odour and noise pollution beyond the installation boundary.

## **Key issues of the decision**

### **Ammonia Emissions**

The installation is situated within the relevant screening distance of one European/Ramsar statutory site. There are six Sites of Special Scientific Interest within the 5 km screening criteria. There are thirteen other conservation sites within the 2 km of this installation.

**The assessment below concludes that the installation impacts on all of the relevant habitat sites within screening distances screens out as having insignificant environmental impacts on the basis of our Ammonia Screening Tool AST v.4.5 assessment.**

### **Ammonia Assessment – SAC / SPA / Ramsar sites**

The following trigger thresholds have been designated for assessment of European sites including Ramsar sites.

- If the Process Contribution (PC) is below 4% 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 assessment alone and in combination is required.
- An overlapping in combination assessment will be completed where existing farms are identified within 10km of the application.

Screening using the detailed modelling has determined that the Process Contribution (PC) on the SAC/SPA/Ramsar sites for ammonia, acid and N deposition from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect.

***The data is based on our Ammonia Screening Tool AST v.4.5 (report dated 27/06/16) with final adjustment to add 430 tonnes of poultry litter storage in addition to broiler numbers figure of 300,000.***

See results below:

A precautionary level of  $1\mu\text{g}/\text{m}^3$  for Critical Level for ammonia has been used during the screen for the Ramsar site below.

Screening indicates that beyond **4,463 m** distance, the Process Contribution at conservation sites is less than 4 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the habitat sites below in Table 1 are beyond this distance.

**Table 1– Distance from source**

Site	Distance (m)
Oxford Meadows SAC	7,893

**On the basis of distances above there is no further requirement for assessment as installation impacts on these habitat sites are concluded to have no likely significant effect.**

Where a CLE of  $1\mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than the 4 % insignificance threshold in these circumstances it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.

### **Ammonia Assessment – SSSIs**

The following trigger thresholds have been applied for assessment of SSSIs. 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.

Our screening assessment dated 27/06/16 indicated that the PCs for the following SSSIs are predicted to be less than 20% CLE/CLO for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the ammonia screening tool v4.5 are given in the tables below. A precautionary CLE of  $1\mu\text{g}/\text{m}^3$  for ammonia has been used during the screen.

Screening indicates that beyond **1,594 m** distance, the PC at SSSIs is less than 20 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the SSSIs below in Table 2 are beyond this distance.

**Table 2 – Distance from source**

Site	Distance (m)
Woodeaton Quarry SSSI	4,719
Weston Fen SSSI	1,937
Shipton-on-Cherwell and Whitehill Farm Quarries SSSI	4,642
Wendlebury Meads and Mansmoor Closes SSSI	2,558
Kirlington Quarry SSSI	4,253.
Otmoor SSSI	4,718.

The PCs for ammonia at these sites has been screened as insignificant. It is therefore possible to conclude that insignificant pollution impact will occur at these sites and no further assessment is required.

Where a CLE of  $1\mu\text{g}/\text{m}^3$  is used, and the PC is assessed to be less than the 20% insignificance threshold in these circumstances it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values. In these cases, the  $1\mu\text{g}/\text{m}^3$  level used has not been confirmed, but it is precautionary.

### **Ammonia assessment - LWS/AW/LNR.**

There are thirteen other conservation sites within 2 km of this installation. The following trigger thresholds have been applied for the assessment of these sites.

1. If PC is < 100% of relevant Critical Level or Load, then the farm can be permitted (H1 or ammonia screening tool)
2. If further modelling shows PC <100%, then the farm can be permitted.

The PCs on the LWSs for ammonia, acid and Nitrogen deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect.

A precautionary CLe of 1µg/m<sup>3</sup> for ammonia has been used during the screen.

Screening using AST 4.5 dated 27/06/16 indicates that beyond **576 m** distance, the PC at conservation sites is less than 100 % of the 1µg/m<sup>3</sup> critical level for ammonia. In this case the other conservation sites below in Table 3 are beyond this distance.

**Table 3 – Distance from Source**

Site	Distance (m)
Ash Wood Local Wildlife Site(LWS)	1,475
Bletchington Road Verge (East) LWS	1,336
Weston Wood LWS	1,422
Black Leys Wood LWS	668
Walker's Copse LWS	1,282
Black Leys LWS	668
Unnamed Ancient Woodland (AW)	1,052
Unnamed AW	1,936
Ash Spinney AW	1,808
Weston Wood AW	1,422
Ash Wood AW	1,475
Unknown AW	2,082

### **Conclusion**

**Based on the distances above there is no further requirement for assessment as installation impacts on these habitat sites are concluded to have no likely significant effect.**

Where a CLe of 1µg/m<sup>3</sup> is used, and the process contribution is assessed to be less than the 4 % insignificance threshold in these circumstances it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.

### **Ancient Woodland at National Grid Reference SP 52982 16766 (<576m from the installation)**

Screening using the ammonia screening tool version AST v.4.5 dated 27/06/16 has determined that the PC on the LWS/AW/LNR's in the table below for ammonia emissions/nitrogen deposition/acid deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect. See results below.

Designated habitat :Mixed and Yew woodland.

**Table 4 - Ammonia emissions**

Site	Critical level ammonia µg/m <sup>3</sup>	Predicted PC µg/m <sup>3</sup>	PC % of critical level
Unknown AW	3**	1.645	54.8

\*\* Critical level values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – June 2016

**Table 5 – Nitrogen deposition**

Site	Critical load kg N/ha/yr	Predicted PC kg N/ha/yr	PC % of critical load
West Copse AW	10*	8.54	85.4

\*Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – June 2016

**Table 6 – Acid deposition**

Site	Critical load keq/ha/yr	Predicted PC keq/ha/yr	PC % of critical load
West Copse AW	2.64*	0.61	23.1

## Conclusion

No further assessment is required.

## Groundwater and 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 applicant 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 applicant** 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 is within the application EPR/ZP3331RH/A001 supplementary information Appendix 1, dated April 2016.

It includes completion of H5 template plus an installation boundary with locations of farm buildings, drains, diesel tank and dirty water tank.

The installation site is located to the north east of Heathfield and south of Weston on Green.

Predominant land usage historically is arable farming and grazing.

This is currently a green field site without any existing buildings within installation boundary and there is no record of historic land contamination.

Our technical review of this specific land usage is as follows.

- There is no record of installation area land contamination.
- There is no record of any usage of the installation area except for agricultural usage.
- The site is not within a Source Protection Zone.

Therefore the conclusion is there is a low risk of historic groundwater and land contamination due to former activities within installation boundary.

**Therefore, although condition 3.1.3 is included in the permit, no groundwater monitoring will be required at this installation as a result.**

## Odour

There are multiple sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). The closest is approximately 250 metres to the south east of the installation boundary at NGR SP 53147 16957.

Therefore an Odour Management Plan is required under our guidance.

An Odour Management Plan (OMP) is included within the application supplementary application including a list of sensitive receptors within 400 metres of the installation boundary, a H1 assessment of key risks linked to potential odour pollution, an assessment of feed and litter management plus ventilation controls and poultry building design to minimise the risk of odour pollution beyond the installation boundary.

Further the OMP covers building clean out and spent litter removal procedures plus a list of abnormal operations scenarios and remedial actions to minimise the risk of odour pollution and also include a complaints procedure.

We, the Environment Agency, have reviewed and approved the Odour Management Plan and consider it complies with the requirements of our H4 Odour management guidance note. We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the operator.

## **Noise**

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The applicant has hence provided a noise management plan in their supplementary application information

Operations with the most potential to cause noise nuisance have been assessed as those involving ventilation fans ,poultry litter burner, boiler flue , feed deliveries, feeding systems and broiler catching, building clean outs plus noise emissions from the standby generator, poultry movement , farm building ventilation fans, delivery of supplies and materials plus automated feed lines.

The noise management plan includes time restrictions for fuel deliveries and standby generator test run maintenance.

The noise management plan covers control measures for each of these potential noise hazards.

Overall the risk of noise pollution beyond the installation boundary is considered not significant.

## **Poultry Litter Boiler**

The European Union (EU) has recently amended the Animal By-Products Regulations (ABPR) effectively recognising that poultry manure can be defined as a by-product. From 15 July 2014, unprocessed poultry manure can be burnt in a burner meeting the requirements of the ABPR on the site where the poultry manure is produced. Where this is the case the Animal and Plant Health Agency (APHA) regulate the burner under the ABPR. Where the burner is installed on an installation under the Environmental Permitting Regulations (EPR) and the heat and electricity is utilised by the farm it is deemed to be a directly associated activity (DAA). The Environment Agency regulate the emissions from the burner within the Environmental Permit for the installation but approval from APHA is required in order to operate the burner at the installation.

We are satisfied that the poultry manure used in the proposed burner at this installation can be classed as an animal by-product.

## **Air Emissions Audit - Poultry Manure Fuelled Burner**

We undertook a separate audit of the environmental risk of emissions to air on habitats and human health from the proposed poultry manure burner. This used the data provided in the Cambridge Environmental Research Consultants (CERC) report submitted with the application (dated 28/07/16). Appropriate emission concentrations have been used in the assessment and they are consistent with emission limit values outlined in the ABPR.

### **Habitat Receptors:**

In accordance with the Environment Agency Air Quality Technical Advisory Guidance 14, "for combustion plants under 5MW, no habitats assessment is required due to the size of combustion plant". Therefore this proposal is considered acceptable and no further assessment is required.

### **Human Receptors:**

The following criteria has been agreed to assess whether poultry litter burner emissions can be screened as not significant not required further modelling.

If the litter is a by-product, all heat from the burner is utilised by the poultry sheds and the proposed litter burner meets the following criteria, no further assessment of the combustion emissions will be required where **all** of the following criteria are met:

- the boiler has an ABPR permit issued by the APHA;

- no individual boiler has a net thermal input greater than 1MWth;
- the aggregated thermal input capacity of all boiler units is less than 5MW net thermal input.
- stack emission velocity at or greater than 20m/s;
- stack height at least 11 m above ground and 1.5m above the roof level of the boiler house and nearby buildings; and
- there are no sensitive receptors within 50m of the emission points(s) where the aggregated net rated thermal input is greater than 2MWth

### **Conclusion**

The Applicant has confirmed that though the majority of above conditions are met including total thermal aggregated thermal input less than 5 MW , the single boiler is greater than 1MW at 1.239 MW thermal input. We have reviewed the applicants modelling data ( modelling report submitted 28/07/16) and conclude that the proposed poultry manure burner would not result in exceedances of any Environmental Quality Standards at human receptors. We consider the environmental risk to be low and agree with the conclusions set out in the applicants report.

Therefore, the proposed poultry manure burner at is not considered likely to pose a significant risk to the environment or human health and no further assessment is required.

### **Biomass Boiler**

The operator has applied for the flexibility to “top up “ their usage of poultry litter with the usage of virgin wood as a fuel for the same 1.239 MW thermal input boiler.

The application supplementary information confirms a maximum total usage of 140 tonnes per annum for virgin wood only.

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

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;

### **For poultry sites, as here:**

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).

This is 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 boiler(s).

The Environment Agency’s risk assessment has shown that the biomass boiler(s) meet the requirements of criteria **C** above, and are therefore even if the operator were to burn 100% biomass.

We consider it not likely to pose a significant risk to the environment or human health and no further assessment is required.

### Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓
Identifying confidential information	We have not identified information provided as part of the application that we consider confidential. The decision was taken in accordance with our guidance on commercial confidentiality.	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> <li>• HSE</li> <li>• Cherwell District Council Environmental Health Department</li> </ul> <p>There are no human residences within 100 metres of the installation boundary and hence in accordance with our guidance no consultation with Public Health England and Director of Public Health.</p>	✓
Responses to consultation and web publicising	The web publicising and consultation (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
<b>Operator</b>		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of part of the facility after the grant of the permit. The decision was taken in accordance with our guidance on what a legal operator is.	✓
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application	✓
<b>The site</b>		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Site condition report	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 condition reports and baseline reporting under IED– guidance and templates (H5).	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application site/ installation is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>A full assessment of the application and its potential to affect the habitat sites has been carried out as part of the permitting process. We consider that the instalation will not affect the</p>	✓



Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>features of the habitat sites.</p> <p>An Appendix 11 dated 28/07/16 has been sent to Natural England for information only. We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant</p> <p>There will be no increase in emissions as a result of this variation, and consequently no increase in environmental risk.</p> <p>See key issues section for more details</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p><b><u>The Operator has proposed the following techniques:</u></b></p> <ul style="list-style-type: none"> <li>• All poultry buildings will be well insulated for optimum animal health and the houses will use roof fan extraction fan complete with back up gable end fans to optimise odour dispersion. The poultry buildings will be thoroughly washed and disinfected between batches.</li> <li>• Fugitive Emission controls include building maintenance, routine building wash downs, usage of separate clean and water drainage. Feed is stored within enclosed feed bins.</li> <li>• Storage facilities: there is one diesel tank, which is bunded.</li> <li>• Combustion unit with usage of virgin wood and poultry litter as fuel.</li> </ul> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR 6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions.</p>	✓
<b>The permit conditions</b>		
Use of conditions other than those from the template.	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template, which was developed in consultation with industry having regard to the relevant legislation.	✓
Raw materials	We have specified limits and controls on the use of raw materials and fuels linked to poultry litter boiler.	✓
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.	✓
Emission limits	We have decided that emission limits should be not set in the permit.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Operator Competence</b>		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.	✓

## **Annex 2: External Consultation, web publicising and newspaper advertising responses**

No external body consultation responses received by the deadline of 30/08/16.

No public responses received by deadline date of 01/09/16...