

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for **Alkmonton Poultry Unit** operated by **Overbrook Farm Limited**.

The variation number is **EPR/ZP3335KF/V006**

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

### Introduction

#### The changes introduced with this variation are as follows:

- The increase in broiler numbers from existing from **240,000 to 302,000**.

The key change linked to this variation is the addition of one new poultry house to allow bird numbers to increase from **240,000 to 302,000**. The installation boundary has been extended to allow for this change and the addition of a fifth poultry shed. The production cycle and operating practices of the farm will be in line with the existing permit. The site drainage plan has been updated in light of the addition of the fifth shed.

The variation also includes for two new additional biomass boilers, each with thermal input of 221 kW, required for space heating for the new poultry shed.

This is a substantial variation by definition of increase in bird numbers itself being above the relevant scheduled activity threshold.

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

This is a consolidated variation with all relevant new permitting conditions and includes the above variation changes.

**An assessment of the installation environmental impacts of this variation has been carried out and the installation is considered to have no significant impacts.**

### Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February and came into force on 27 February. These Regulations transpose the requirements of the Industrial Emissions Directive (IED).

This permit implements the requirements of the EU Directive on Industrial Emissions. The majority of requirements have been included in the original permit. The key changes include the addition of amended notifications to schedule 5 for compliance with new IED requirements.

### Environmental Impacts

#### Ammonia Emissions

There are no Special Areas of Conservation (SAC), / Special Protection Areas (SPA), / Ramsar site located within 10km of the installation.

There are no Sites of Special Scientific Interest (SSSI) within 5 kilometre. There are three other nature conservation sites within the 2 km screening distance of this installation.

The Environment Agency screening assessment dated 16/04/15 was based on the application revised bird numbers of 302,000 and the following broiler building ventilation arrangements:

- Roof High Velocity fans for sheds 1 to 5
- Fully littered floor, non-leaking drinkers
- Ammonia Emission Factor 0.034 kg NH<sub>3</sub>/animal\_place/year)

## Ammonia Assessment

### **Ammonia assessment – Other nature conservation sites**

There are three such 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.

### **Sites that screen out after initial review below:**

The following trigger thresholds have been applied for assessment of other nature conservation sites. If the Process Contribution (PC) is below 100% 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.

#### Leapleymount Pond Local Wildlife Site

There are no critical levels applied as this site is designated for aquatic features only and therefore there is no pathway for damage to occur.

### **Where sites screen out as <100%**

Screening using our screening assessment dated 16/04/15 indicated that the PCs for the following other nature conservation sites are predicted to be less than 100% Critical Level for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the ammonia screening tool v4.4 are given in the table below.

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

Screening indicates that beyond **501 m** distance, the Process Contribution at conservation sites is less than 100 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the sites below in Table 1 are beyond this distance.

**Table 1– Distance from source**

Site	Distance (m)
Yeavely Churchyard Local Wildlife Site	1,291
Alkmonton Wood	1,266

**The PCs for ammonia at these sites has been screened as insignificant.** It is therefore possible to conclude that no significant pollution 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 process contribution is assessed to be less than the 100 % insignificance threshold in this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values.

**On the above basis no further assessment is necessary.**

## Biomass boiler assessment.

The operator is varying their permit to include two biomass boilers with a net rated maximum thermal input of 2 x 221 kWh. There are now ten biomass boilers in total within the installation with a total thermal input of 2195 kWh. The locations of the new biomass boilers are defined on the operator revised site drainage plan submitted with this variation application EPR/ZP3335KF/V006.

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 sites 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:

- A. the aggregate net rated thermal input is less than 0.5MW<sub>th</sub>, or;
- B. the aggregate boiler net rated thermal input is less than or equal to 4 MW<sub>th</sub>, and no individual boiler has a thermal input greater than 1 MW<sub>th</sub>, and;
  - the stack height must be a minimum of 5 meters above the ground (where there are buildings within 25 meters the stack height must be greater than 1 meter above the roof level of buildings within 25 meters) and;
  - there are no sensitive receptors within 50 meters of the emission points

This is in line with the Environment Agency's document "Air Quality and Modelling Unit C1127a Biomass firing boilers for intensive poultry rearing", an assessment has been undertaken to consider the proposed addition of the biomass boilers.

The Environment Agency's risk assessment has shown that the biomass boilers meet the requirements of criteria **B** above, and are therefore considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

In terms of virgin wood chip/pellet storage the biomass facility maximum timber storage capacity is 140 tonnes. Boiler Ash is to be securely stored before being disposed of as waste and will not be spread on land.

In addition the variation application includes a biomass boiler specific accident management plan, overall site emergency plan and H1 accident management plan risk assessment with fire precautions and procedures in place to respond to any potential fire linked to operation of biomass boilers.

## 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 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 updated site condition report for Alkmonton Poultry Unit is within the supplementary application documentation.

It includes completion of H5 template plus a revised installation boundary plan and revised site drainage plan

The installation boundary has increased to allow for the building of one extra poultry building. There is no evidence of historical contamination at this site

The land has been utilised for arable agriculture for many years with the current permit being in operation since 2007.

Our technical review of this specific former 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 ground water safeguard zone or flood risk area.

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 sensitive receptors within 400m of the installation. There is a pond within 250m of the installation situated at grid reference SK 18213 39394. There are also residential properties within 400m located at the following grid reference codes SK 18581 39190, SK 18345 38807 & SK18361 38758.

There has been one complaint of odour in the last 3 years, potentially, linked to this site (23rd July 2012) but it was not substantiated.

Overall the site has been operated without specific odour concerns.

The poultry house ventilation systems are designed to minimise risk of potential odour beyond installation boundary. The new broiler buildings have high velocity extract fans to maximise vented air dispersion.

An Odour Management Plan has been submitted with this application. The OMP consists of the following documents:

- Updated OMP within variation application supplementary document covering content of Poultry Code of Practice Checklist and our Top Tips Guidance document.
- Duly making response with more detail of odour controls during poultry building clean outs.

Overall there is the potential for odour pollution from the installation. However the risk of odour pollution beyond the installation boundary is considered not significant. The updated odour management plan provides an improved basis for odour controls to minimise risk of potential for unacceptable odour pollution beyond installation boundary

### **Noise**

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The operator has hence provided a noise management plan in their supplementary application information and an associated H1 risk assessment.

Operations with the most potential to cause noise pollution have been assessed as those involving vehicle engine movement eg. feed delivery, transport of birds onto and off site plus operation of ventilation fans.

To minimise associated noise from these activities the management plan includes usage of dedicated modern, well maintained vehicles and minimisation of deliveries at anti-social hours. The management plan includes a commitment to assess noise levels during such activities and optimise vehicles and procedures to minimise noise.

There is no history of noise complaints linked to the existing poultry houses.

Overall there is the potential for noise from the installation beyond the installation boundary.

However the risk of noise beyond the installation boundary is considered insignificant.

#### Annex 1: decision checklist

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. The application was sent for consultation with <ul style="list-style-type: none"><li>Derby Dales District Council Health Department</li><li>HSE</li></ul>	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. No consultations comments were received. 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. This permit meets IED requirements. See key issues section above for further information.	✓
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. The installation boundary has increased with the addition of the two new broiler buildings. 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. Please refer to key issues, section 'Groundwater and soil monitoring'. As a result of further assessment, baseline data is not required. 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	The application is within the relevant screening distance criteria of three nature conservation sites. An ammonia emissions review is included in key issues section of this document, for each of these three nature conservation sites.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	In conclusion installation environmental impacts on the surrounding habitat sites are considered not significant.	
<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>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p><i>The Operator has proposed operating techniques in compliance with our EPR 6.09 guidance for the new broiler building.</i></p> <p>All poultry houses are built on a concrete base and the walls and roofs are insulated. The sheds are fan ventilated for vented emissions to maximise air dispersion. The feed bins are sealed.</p> <p>The changes linked to this variation will include three new feed silos, two extra biomass boilers and an extra silo for wood pellet storage.</p> <p>The site drainage plan has been updated and includes new French drains to collect general surface water runoff on locality of poultry building 5 and sealed drainage for transfer of roof water and yard water for poultry building 5 to either one of two surface water discharge points into a local ditch to the east of the installation boundary.</p> <p>Further procedures are in place to ensure dirty water is diverted to an existing underground tank. Poultry building 5 dirty water is to be discharged to existing tank utilised also for poultry building 4.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.</p>	✓
<b>The permit conditions</b>		
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.	✓
<b>Operator Competence</b>		
Environment management system (EMS)	<p>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 applicant has chosen to utilise their own management system without external certification.</p> <p>A summary of the EMS of the supporting information gives the EMS covering normal operation, maintenance schedules and records, incidents and abnormal operations, complaints system, accident management, training and provision of competent staff plus site security. There is also a list of specific detailed procedures linked to the EMS.</p> <p>The accident management plan is currently being prepared to allow completion prior to facility operation beyond EPR scheduled activity threshold.</p> <p>The decision was taken in accordance with RGN 5 on Operator Competence.</p>	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	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 : Operator Competence	✓

## Annex 2: Consultation and web publicising responses

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

*No external consultation responses received.*

This proposal was also publicised on the Environment Agency's website for 4 weeks but no representations were received during this period.