

# Environment Agency permitting decisions

## Variation

We have decided to issue the variation for Orchard Farm operated by Kinswood Eggs Limited.

The variation number is EPR/SP3533UN/V005.

The permit number is EPR/SP3533UN.

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; and
- 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: Ammonia Assessment; Odour; and Groundwater / Soil Monitoring;
- Annex 1 the decision checklist; and
- Annex 2 the consultation and web publicising responses.

## Key issues of the decision

### Environmental Improvement

The operator has upgraded their layer housing from a deep pit manure system to an enriched colony layer system. The new enriched colony has manure belts, with twice-weekly manure removal. The belts also have ducted blown air drying equipment to provide efficient drying of manure on the belts. The ammonia emission factor is therefore much lower in the upgraded housing than in the original deep pit system. In addition, the three new pullet rearing housing also have belt cleaning systems, with manure removal at least twice a week.

Based on the information provided in the application, the proposed changes on site to the sheds and the increase in animal places will not result in a net

increase of ammonia, when compared with the original permit application ammonia assessment. The proposed improvements to the manure handling and treatment will reduce ammonia emissions, despite the increase in bird numbers. This is demonstrated in the tables below:

**Table 1: 2007 ammonia emissions at Orchard Farm:**

Number of bird places	Housing System	NH <sub>3</sub> emission factor (kg-NH <sub>3</sub> per bird place per year)	Total NH <sub>3</sub> emission (kg-NH <sub>3</sub> per year)
120,000	Deep pit (layers)	0.29	34,800
22,000	Littered (layers)	0.29	6,380
60,000	Enriched colony belt clean (layers)	0.035	2,100
<b>202,000</b>		<b>Total</b>	<b>43,280</b>

**Table 2: 2015 Proposed ammonia emissions at Orchard Farm:**

Number of bird places	Housing System	NH <sub>3</sub> emission factor (kg-NH <sub>3</sub> per bird place per year)	Total NH <sub>3</sub> emission (kg-NH <sub>3</sub> per year)
0	Deep pit (layers)	0.29	0
0	Littered (layers)	0.29	0
424,000	Enriched colony belt clean (layers)	0.035	14,840
110,000	Rearing cages belt clean (pullets)	0.06	6,600
<b>534,000</b>		<b>Total</b>	<b>21,440</b>

As a result of this proposal, there will be approximately a 50.5% reduction in ammonia emissions from Orchard Farm when compared to the 2007 emission values (from 43,280 kg-NH<sub>3</sub> per year to 21,440 kg-NH<sub>3</sub> per year).

We are satisfied that the proposal represents a significant environmental improvement on site. The ammonia emissions from the site following the upgrade in housing and manure management will not result in a negative impact on any designated wildlife sites when compared to the previous levels of ammonia emissions from the farm.

## Odour

The operator has provided an updated Odour Management Plan (reference *Appendix 9: Odour Management Plan*, May 2015) with the application, as there are sensitive receptors within 400m of the installation. The local compliance team have no history of substantiated odour complaints relating to the installation.

Potentially significant sources of odour are: compound feed selection, feed delivery and storage; ventilation techniques; carcass storage and disposal; drinking water systems; de-stocking of houses; manure removal and clean out; dirty water generation and storage; manure storage; and dust build up.

Mitigation techniques on site include, but are not limited to, the following:

Potential odour problem	Action to be taken to reduce odour
Odour emission from fans	<ul style="list-style-type: none"> <li>• All fans have been selected to ensure good air movement from the houses and to efficiently maintain the environment;</li> <li>• The ventilation system is adjusted regularly to take account of changes in ambient weather conditions;</li> <li>• Dust generation and emissions are minimised by regular checks and good stockman ship;</li> <li>• Lightly contaminated water (e.g. with dust from fans) is intercepted by gravel /pipes/vegetation and attenuation ponds.</li> </ul>
Odours from the delivery and storage of feed	<ul style="list-style-type: none"> <li>• No on-site milling and mixing of feed is undertaken;</li> <li>• All feed delivery systems are sealed to minimise atmospheric dust;</li> <li>• Feed storage areas are kept free from spilled feed and cleaned regularly as part of normal farm procedures and checks;</li> <li>• The operator checks the condition of feed bins regularly to identify any damage or leakage.</li> </ul>
Odours from the feed	<ul style="list-style-type: none"> <li>• Feeds are formulated by a poultry feeds nutrition specialist to ensure that they are 'balanced' in nutrients to avoid increased excretion, excess manure moisture content;</li> <li>• Only approved raw materials used;</li> <li>• As birds get older protein levels in the feed are reduced;</li> <li>• Samples of feed are retained so that analysis can be undertaken in the event of a suspected problem;</li> <li>• The operator monitors pest levels and activity associated with feed storage and arranges for immediate treatment if needed.</li> </ul>
Poor manure management	<ul style="list-style-type: none"> <li>• Manure is dried on belts within the houses;</li> <li>• The operator will maintain close controls on feed and ventilation to assist manure management;</li> <li>• Nipple drinkers to be used to minimise water spillage onto the belts in all houses;</li> <li>• Daily checks of drinking lines identify any problems which may lead to spillage;</li> <li>• Stocking density is at appropriate levels to prevent over-crowding;</li> <li>• Use of a health plan with specialist veterinary input as necessary.</li> </ul>
Odours during weekly and terminal cleaning out	<ul style="list-style-type: none"> <li>• Any manure held on site is contained within a fully-covered store so that there is no water ingress;</li> <li>• Manure is tipped into trailers or spreaders from minimal height prior to removal from the farm;</li> <li>• When full, trailers are covered and manure is taken away from the farm;</li> <li>• Poultry house ventilation is reduced to minimum during the terminal clean-out period;</li> <li>• Wash water generated by the clean-out process is contained in a sealed in a below-ground storage tank;</li> <li>• The clean-out process is monitored by the operator so that the dirty water does not overflow from the storage tank;</li> <li>• Dirty water is taken away from the poultry site in sealed systems and utilised on agricultural land;</li> <li>• Records are maintained of manure and dirty water removal and collections made.</li> </ul>
Odours from carcass storage and disposal	<ul style="list-style-type: none"> <li>• Carcasses will be removed from the poultry houses on at least a daily basis and they will be transferred promptly to sealed storage;</li> <li>• No on-site incineration of carcasses so no resulting odour.</li> </ul>
Odours from spilled materials around the buildings	<ul style="list-style-type: none"> <li>• The operator ensures that the site is maintained in a clean and tidy condition at all times;</li> <li>• Any spilt manure will be swept up and put into a covered manure</li> </ul>

Potential odour problem	Action to be taken to reduce odour
	store; <ul style="list-style-type: none"> <li>• Regular site inspections are made by the operator. Any matters arising as a result of these inspections are documented and records are kept on site.</li> </ul>

If a confirmed odour complaint is received, the operator has confirmed investigation procedures are in place on site to identify why the incident occurred. Site procedures may be revised to reduce the likelihood of further odorous complaints.

Based on the information submitted in their odour management plan and risk assessment we are satisfied that the operator has proposed adequate measures to prevent or minimise odour emissions.

The Odour Management Plan 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 satisfied that the control and contingency measures on site are sufficient to control odorous emissions from the site. We have therefore accepted the Odour Management Plan for Orchard Farm.

### 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 there is 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 Orchard Farm (reference: *Appendix 2 Site Baseline Condition Report*) demonstrates the installation activities have little likelihood of causing pollution (as detailed in original permit decision document). We are satisfied 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.**

## 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
<b>Consultation</b>		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with Regulatory Guidance Note (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.	✓
<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 the facility after the grant of the permit. The decision was taken in accordance with Environmental Permitting Regulations RGN 1 Understanding the meaning of operator.	✓
<b>European Directives</b>		
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).	✓
<b>The site</b>		
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.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Site condition report	<p>The operator has provided a description of the condition of the site, including the additional area of land to be incorporated within the installation boundary.</p> <p>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).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application 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 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.</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.</p> <p>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>The operator has proposed the following key techniques:</p> <ul style="list-style-type: none"> <li>• Dirty water storage facilities are in place on site;</li> <li>• Nipple drinkers are used to reduce wastage of water and maintain dry litter;</li> <li>• A new laying house (Laying House A) will be built with high velocity ventilation fans extracting air at a velocity of at least 11m/s;</li> <li>• Layer housing has an enriched colony layer system with twice-weekly manure belt removal;</li> <li>• Layer housing manure belts also have ducted blown air drying equipment to provide efficient drying of manure on the belts;</li> <li>• Three new pullet rearing housing will also have</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>belt cleaning systems, with manure removal at least twice a week;</p> <ul style="list-style-type: none"> <li>• The new manure storage area will be covered;</li> <li>• Protein is reduced over the growing cycle by providing different feeds and phosphorus levels in rations are reduced over the production cycle;</li> <li>• All mortalities are collected and stored in vermin-proof, covered bins prior to off-site disposal in line with Animal By-product Regulations.</li> </ul> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in Sector Guidance Note (SGN) EPR6.09 'How to comply with your environmental permit for intensive farming (version 2)' and we consider them to represent appropriate techniques for the facility.</p> <p>We consider that the operating techniques specified in the permit reflect the Best Available Techniques (BAT) for the installation.</p>	
<b>The permit conditions</b>		
Updating permit conditions during consolidation.	<p>We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permits.</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓
Incorporating the application	<p>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.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
<b>Operator Competence</b>		
Environment management system	<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 decision was taken in accordance with RGN 5 on Operator</p>	✓



Aspect considered	Justification / Detail	Criteria met
		Yes
	Competence.	
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> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓
Financial provision	<p>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.</p>	✓

## **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.

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

- Horsham District Council - Planning department
- Horsham District Council – Environment Health department
- Health and Safety Executive (HSE)

This proposal was also publicised on the Environment Agency's website between 20/05/2015 and 19/06/2015, but no representations were received during this period.