

# Permitting decisions

## Variation

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We have decided to grant the variation for Eagle Farm Poultry Unit operated by Hook 2 Sisters Limited.

The variation number is EPR/HP3133UR/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 provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account. This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- shows how we have considered the [consultation responses](#).

Unless the decision document specifies otherwise we have accepted the applicant's proposals. Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

### Key issues of the decision

This is a substantial variation. It comprises six existing poultry houses being demolished and replaced by four new timber framed poultry houses. The three remaining existing timber framed houses (poultry houses 8, 9 and 10) have been refurbished and updated to meet BAT giving a total of seven fit for purpose poultry houses at the installation. The maximum capacity at the installation is decreased from 354,000 to 298,500 broiler places. Each new poultry house is ventilated using high velocity ridge mounted fans (11m/s) with a short chimney drawing fresh air into the buildings via inlets mounted in the side walls. Gable end fans are on each house for use in hot weather.

The consolidation comprises updating the whole of the original permit to a modern standard incorporating the changes implemented by the Environmental Permitting (England and Wales) (Amendment) Regulations 2013 which transpose the requirements of IED.

## 1) Ammonia Impacts

There are two Sites of Special Scientific Interest (SSSI) within 4.4km, eight Local Wildlife Sites (LWS) within 2km and four Ancient Woodlands (AW) within 2km of the facility.

### Assessment of SSSI:

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. Initial screening using the ammonia screening tool spreadsheet (AST) v4.5 has indicated that the PC at Spalford Warren and Doddington Clay Woods SSSIs screen out at CLe 1. Therefore, no further assessment is necessary for the SSSIs.

### Assessment of LWS:

The following trigger thresholds have been applied for the assessment of non-statutory LWS:

- If the PC is <100% of relevant CLe or CLo then the farm can be permitted (H1 or ammonia screening tool)
- If the PEC < CLe or CLo then the farm can be permitted
- If further modelling shows PC <100%, then the farm can be permitted.

Initial screening using the AST spreadsheet v4.5 has indicated that Ox Pasture Drain, Wigsley Drain, Pickworth's Plot, Whisby Stocking, Fox Holt, Strunch Hill Wood and Donkey Close Meadow LWSs, and Whisby Stocking, Fox Holt and Strunch Hill Wood AWs all screen out at CLe 1. Therefore, it is possible to conclude no damage and that no further assessment is necessary.

The proposed activity could result in damage to Hurn Wood LWS and an adjacent un-named AW as the PC is greater than 100%. Further details are presented in the table below.

Name	Ammonia CLe	PC	Ammonia deposition (N)	Acidification (N)	PC as % of CLe Ammonia
Hurn Wood	3µg/m <sup>3</sup>	3.768µg/m <sup>3</sup>	19.572kg/ha/yr	1.398keq/ha/yr	125.6%
Un-named woodland	3µg/m <sup>3</sup>	3.957µg/m <sup>3</sup>	20.551kg/ha/yr	1.468keq/ha/yr	131.9%

Hurn Wood LWS and the Un-named AW screen out for ammonia and acid deposition. However, they both screen in for nitrogen deposition. Therefore, detailed modelling was required to be undertaken by the Applicant to further assess the affects of ammonia emissions to air.

### Detailed Modelling

A detailed air modelling report of the dispersion and deposition of ammonia was provided as part of the application ('A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Existing and Proposed Broiler Chicken Rearing Houses at Old Farm, near Eagle in Lincolnshire'. AS Modelling & Data Ltd) dated 28 May 2016. The Environment Agency Guidance on modelling the concentration and deposition of ammonia emitted from intensive farming - Air Quality Modelling and Assessment Unit, 22 November 2010, v3 was used to cross check the model version, input parameters, meteorological dataset, emission rate calculation, emission rate used in the modelling, data sets and data source types. On this basis we accept that the results and conclusions presented in the modelling report are correct.

The air dispersion model ADMS 5 was used along with a critical level of 1ug/m<sup>3</sup> and background concentrations obtained from the Air Pollution Information System (APIS). The background ammonia concentration (annual mean) in the area around the installation and wildlife sites is 2.86µg-NH<sub>3</sub>/m<sup>3</sup>, the background nitrogen deposition rate to woodland is 41.86kgN/ha/yr and to short vegetation is 24.50kgN/ha/yr. The background acid deposition rate to woodland is 2.85keq/ha/yr and to short vegetation is 1.72keq/ha/yr.

The model concluded that there are predicted exceedances of 100% of both the CLe of 1.0ug-NH<sub>3</sub>/m<sup>3</sup> and the CLo of 10kgN/ha/yr over parts of Hurn Wood/Crow Wood LWS/AW covering an area of about 2.3Ha. However, with the reduction in place numbers from 354,000 to 298,500, the upgrading and replacing of the older non-BAT poultry houses and increasing poultry house fan velocity shows a reduction in the ammonia emissions to air compared with the current operating regime at the installation.

Based on the consultant's predictions and the plant and emissions data provided, the Environment Agency confirms that the proposed scenario will likely offer a slight reduction in the impact at receptors. It should be noted that the predictions of impacts at sensitive ecological receptors are over 200% of the CLe and over 100% of the CLo at some local wildlife sites.

Lincolnshire Wildlife Trust (LWT), Greater Lincolnshire Nature Partnership (GLNP) and Lincolnshire County Ecologist (LCE) were formally consulted regarding Hurn Wood LWS and the Un-named AW.

LWT and GLNP replied confirming that Hurn Wood LWS is recognised on Natural England's Ancient Woodland Inventory as Ancient Semi Natural Woodland. It consists of broadleaved woodland with some understory dominated by bracken as well as a drain with flowing water running through the south-west part of the woodland. It was designated in 2009 and has a total of 98 vascular plant species including 20 woodland indicators. However, both LWT and GLNP concluded they were not qualified to make an assessment on whether there may be any potential impacts of emissions for permitting purposes.

The LCE did not reply to the consultation request.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified any information provided as part of the application that we consider to be confidential.
<b>Consultation/Engagement</b>	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations:</p> <ul style="list-style-type: none"> <li>➤ Local Authority (Environmental Health and the Planning Department)</li> <li>➤ Health and Safety Executive</li> <li>➤ Lincolnshire County Council Ecologist</li> <li>➤ Lincolnshire Wildlife Trust.</li> </ul> <p>The comments and our responses are summarised in the <a href="#">consultation section</a> as well as in the <a href="#">key issues</a> section.</p>
<b>The site</b>	
Extent of the site of the facility	The operator has provided plans which we consider are satisfactory showing the extent of the site of the facility. A plan is included in the permit but will need updating (refer to the 'Pre-operation conditions' row in this determination checklist).
Site condition report	<p>The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.</p> <p>The site condition report (SCR) for Eagle Farm Poultry Unit (dated November 2016) demonstrates that there are no significant hazards or likely pathways</p>

Aspect considered	Decision
	<p>to land or groundwater and no historic contamination sources on site that may present a significant risk.</p> <p>Therefore, on the basis of the assessment presented in the SCR the Environment Agency accepts that no baseline reference data needs to be provided for the site soil and groundwater conditions as part of application EPR/HP3133UR/V006.</p>
<p>Biodiversity, heritage, landscape and nature conservation</p>	<p>The application is within the relevant distance criteria of a site of nature conservation. We have assessed the application and its potential to affect all known sites of nature conservation identified in the nature conservation screening report as part of the permitting process. We consider that the application will affect some of the sites of nature conservation identified and have imposed an improvement condition within the permit to address this.</p> <p>We have consulted Lincolnshire Wildlife Trust and Lincolnshire County Council Ecologist on our assessment and taken any comments into account in the permitting decision. Refer to details in the <a href="#">key issues</a> section.</p>
<p><b>Environmental risk assessment</b></p>	
<p>Environmental risk</p>	<p>We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.</p>
<p><b>Operating techniques</b></p>	
<p>General operating techniques</p>	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
<p>Operating techniques for emissions that do not screen out as insignificant</p>	<p>Emissions of ammonia to air cannot be screened out as insignificant. We have assessed whether the proposed techniques are BAT. The proposed techniques are in line with the techniques contained in the technical guidance and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions. Refer to further details within the <a href="#">key issues</a> section.</p>
<p>Odour management</p>	<p>We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory.</p>
<p>Noise management</p>	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control. We consider that the noise management plan is satisfactory.</p>
<p><b>Permit conditions</b></p>	
<p>Updating permit conditions during consolidation</p>	<p>We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permits.</p>
<p>Pre-operational conditions</p>	<p>Based on the information in the application, we consider that we need to impose a pre-operational condition. The operator is required to produce a</p>

Aspect considered	Decision
	finalised scaled housing and drainage plan which covers all aspects of the installation to the local Environment Agency officer at least two weeks prior to the operation of the site.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. We have imposed an improvement programme to ensure that a 12 month trial is set-up to show an overall improvement in environmental conditions (relating to ammonia emissions to air) at the installation.
Emission limits	No emission limits have been added, amended or deleted as a result of this variation.
<b>Operator competence</b>	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

## Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

### Responses from organisations listed in the consultation section

<b>Response received from:</b> Environmental Health Officer (North Kesteven District Council) dated 17 February 2017.
<b>Brief summary of issues raised</b>
This Department has no record of any complaints relating to the application site. However, we do receive complaints annually from properties near to poultry units, relating to increased numbers of flies (usually lesser house flies) within properties.
<b>Summary of actions taken or show how this has been covered</b>
Conditions 3.6.1 and 3.6.2 are within the permit to specifically deal with pests and the provision of a pest management plan if the Environment Agency deem it necessary.

<b>Response received from:</b> Conservation Officer, Lincolnshire Wildlife Trust dated 27 February 2017.
<b>Brief summary of issues raised</b>
Hurn Wood Local Wildlife Site (LWS) is recognised on Natural England's Ancient Woodland Inventory as Ancient Semi Natural Woodland. In terms of the potential for the proposed ammonia emissions to cause deterioration to the LWS, from the proposed emission isopleth maps provided it appears that the closest part of Hurn Wood LWS may be subjected to levels which may impact on the nature conservation interest of the LWS. Should this permit be granted we would therefore suggest that methods such as tree screens are used to reduce impacts on the LWS from ammonia emissions.
<b>Summary of actions taken or show how this has been covered</b>
Tree screening would be a planning application consideration. However, with the reduction in broiler place numbers at the site from 354,000 to 298,500, the upgrading of and replacement of the older non-BAT poultry houses and increasing poultry house fan velocities detailed modelling has shown a reduction in the ammonia emissions to air compared with the current operating regime at the installation. This constitutes an environmental improvement.

The Local Authority Planning Department, the Health and Safety Executive and Lincolnshire County Council Ecologist were consulted on this application. However, consultation responses were not received.

The application was advertised externally on the GOV.UK website between 15 February 2017 and 15 March 2017 to invite any responses and comments from the general public. No responses were received.