

Environment Agency permitting decisions

Variation

We have decided to issue the variation for Ricketwood Farm operated by F. S. Peake & Son Limited.

The variation number is EPR/GP3237FZ/V003.

The permit number is EPR/GP3237FZ.

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

Ammonia Impacts

There is one Site of Special Scientific Interest (SSSI) within 5 kilometres of the site. There are also 17 Local Wildlife Sites and 8 Ancient Woodland sites within 2km of the installation. An assessment of the impacts of ammonia from the site has demonstrated that there will be no significant impact on the nature conservation sites from the farm installation, as detailed below.

Assessment of Site of Special Scientific Interest (SSSI)

Newhall Reservoir Meadow SSSI is located 3.7km away from the farm. The following trigger thresholds have been applied for the assessment of SSSIs.

If the Process Contribution (PC) is less than 20% of relevant Critical Level (CLe) or Load (CLo), then the farm can be permitted.

Initial screening using Ammonia Screening Tool (AST) v4.4 has indicated that emissions from the installation are less than 0.2ug/m³ (i.e. less than 20% of the precautionary 1ug/m³ critical level) and it is therefore possible to conclude no damage on this site (see table 1 below).

Where the precautionary level of 1µg/m³ 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 critical load is necessary. In these cases the 1µg/m³ level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no damage on the interest features of these sites.

Table 1 – SSSI Assessment

Name of SSSI	Critical Level (µg/m ³)	AST Predicted Ammonia (ug/m3)	PC as % of CLe Ammonia
Newhall Reservoir Meadow	1	0.020	2%

Assessment of Local Wildlife Sites (LWS) and Ancient Woodland (AW)

The following trigger thresholds have been applied for the assessment of LWSs. If the PC is less than 100% of relevant CLe or CLo, then the farm can be permitted.

Screening using Ammonia Screening Tool v4.4 has indicated that beyond 283m the PC from Ricketwood Farm Unit is less than 1ug/m³ (i.e. less than 100% of the precautionary 1ug/m³ critical level) and therefore the PC is insignificant. 22 of the 25 LWS and AWs are beyond this distance and therefore screen out of any further assessment (see Table 2 below).

Where the precautionary level of 1µg/m³ is used, and the PC is assessed to be less than 100%, the site automatically screens out as insignificant, and no further assessment of critical load 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 Assessment

Name of LWS	Distance from site (m)
Birkhouse Wood Reservoir	1,127
Thirstly Coppice	1,491
Haloughton Dumble	848
Order Beck Pasture	1,956
Epperstone Dumble (South)	449
Epperstone Park	1,486
Rosselle Wood	694
Westhorpe Dumble	2,045
Park Farm Dumble	999
Cotmoor Plantation	1,820

Cotmoor Lane	1,638
Oxton Road Woodland	1,838
Radley Lane Dumble	1,466
Oxton Dumble	1,946
Halloughton Wood	1,781
Epperstone Park	1,486
Oxton Dumble	1,946
Epperstone Dumble 2	449
Thirstly Coppice	1,621
Unnamed woodland	999
Roshill Wood	694
Halloughton Wood	1,781

Three LWS / AW are within 250m of the installation, and therefore required detailed ammonia modelling to be carried out.

The closest LWS, Ricketwood Farm Hedgerows is situated at the installation boundary, and 40m from the closest ammonia emission point. We consulted the Senior Practitioner for Nature Conservation at Nottinghamshire County Council regarding the status of the LWS. He contacted the Nottinghamshire Biological and Geological Records Centre, who are responsible for the management of the LWS system in Nottinghamshire (including the survey of sites). Their response was that *“the hedgerow is unexceptional and was previously selected as a ‘representative’ example of hedgerows in that area; that it is approximately 6 foot high and is managed by flailing; and that it does not have a notable ground flora. They have also advised that they do not consider that there is any justification for it to be retained as an LWS, and that it is likely to be de-designated, either once the existing LWS guidelines have been updated (which is an ongoing process), or sooner (this may be within the next 12 months)”*. Nick concluded that on that basis, we could treat the hedgerow as if it were no longer an LWS. Therefore no further consideration of this LWS was taken.

Epperstone Dumble (North) LWS and Thurgarton Dumble AW are both situated approximately 195m from the installation at the closest point. For these sites, the farm has screened out, as set out above, using results of the detailed modelling supplied by the applicant as part of the application (Document Reference: *A Report on the Modelling of the Dispersion and Deposition of Ammonia from the existing and Proposed Broiler Rearing Units at Ricketwood Farm, Epperstone in Nottingham*. A S Modelling & Data Limited. 12th January 2015).

Table 3 - Ammonia Emissions

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
Epperstone Dumble (North) LWS	3*	1.054	35.1%
Thurgarton Dumble AW	3*	1.054	35.1%

* CLe3 applied as no protected lichen or bryophytes species were found when checking easimap protected species layer

Table 4 - Nutrient enrichment - nitrogen

Site	Critical Load nutrient enrichment kg N/ha/yr	PC Kg N/ha/yr	PC % Critical Load
Epperstone Dumble (North) LWS	10**	8.554	85.5%
Thurgarton Dumble AW	10**	8.554	85.5%

** Critical load values taken from APIS website (www.apis.ac.uk) – 05/12/2014

The applicants modelling was reviewed by our Air Quality Modelling and Assessment Unit (AQMAU) to confirm the reports conclusions and basic checks were carried out on the modelling files provided. AQMAU confirmed that we can agree with the applicants conclusion that the proposed variation would not result in a significant impact on the neighbouring non-statutory habitat sites, Epperstone Dumble (North) LWS and Thurgarton Dumble Ancient Woodland site. We can therefore have reasonable confidence that the environmental risk is low, and a detailed audit would provide little additional information that would be likely to change this conclusion.

This is based on the following:

- AQMAU ran the applicants model (using AQMAU generated met data, terrain data and time varying emission files) and reviewed their approach and model set up. Preliminary results were in line with the applicants predictions;
- The critical loads and critical levels and background concentrations presented in the consultant's report are appropriate;
- The predicted process contributions are shown to be less than 100% of the critical level or critical load at all selected sensitive receptors. Whilst variation in meteorological data, specific sensitive receptor locations and model input parameters may vary the outputs, it is unlikely that the process contribution would significantly exceed 100% of the relevant assessment parameters.

No further assessment for these sites is required.

Odour

The operator has provided an updated Odour Management Plan (reference *Odour Management Plan Ricketwood Farm Poultry Unit*. February 2015) with the application, as there are sensitive receptors within 400m of the installation. The local compliance team have no substantiated odour complaints relating to the installation.

Potentially significant sources of odour are: feed selection, feed storage and delivery, poultry house ventilation, litter conditions and litter management, carcass storage and disposal, drinking water systems, bird depletion, house

clean out and litter removal, spent litter, dirty water generation and storage, and dust build up.

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

- No onsite mixing and milling of feed; feed specifications prepared by nutritional specialist to ensure protein and phosphorous content is reduced as the rations change;
- Feed delivery system is sealed to minimise dust and odour. Cyclone dust catchment systems are in place on all silos. Any spillage is immediately swept up;
- Ventilation systems are regularly adjusted according to requirements of the flock and is designed to efficiently minimise humidity from the house;
- Maintenance schedules are in place and carried out in line with manufacturers recommendations;
- Nipple drinkers minimise water spillage;
- Veterinary health plan with specialist veterinary input used as necessary;
- Insulated walls prevent condensation; concrete floors prevent water ingress;
- Carcasses are stored in purpose built locked bins and collected weekly. Bins are stored away from sensitive receptors and in the shade where possible; bins are treated weekly with odour neutraliser;
- Following depletion, all internal house areas are blown down using high pressure air lances to reduce amount of dirty water generated. Clean down is carried out within 12 hours of the birds being depleted;
- At clean out dirty water is stored in sealed underground containment tanks. Dirty water is removed from site using vacuum tankers on a routine basis. Storage tanks are checked before and after wash down or following any prolonged rainfall.

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 Ricketwood 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 Ricketwood Farm (reference: *Site Condition Report for Ricketwood Farm Poultry Unit*. February 2015) 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
Consultation		
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.	✓
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.	✓

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> <p>An Appendix 4 Assessment for SSSIs has been saved to Electronic Document Records Management system for information only on 21/04/2015.</p>	✓
Environmental Risk Assessment and operating techniques		
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"> • Dirty water storage facilities are in place on site; • Nipple drinkers are used to reduce wastage of water and maintain dry litter; • Protein is reduced over the growing cycle by providing different feeds and phosphorus levels in rations are reduced over the production cycle; • Housing is fully insulated and have a damp proof course to reduce condensation and heat loss. <p>Ventilation and heating is controlled by computers</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>depending on the health and welfare needs of the birds;</p> <ul style="list-style-type: none"> • Biomass boilers are installed to provide heating for the houses; • High velocity ventilation fans are installed on site (11m/s). <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>	
The permit conditions		
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>	✓
Operator Competence		
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 Competence.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
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.

Response received from
Health and Safety Executive (HSE), dated 13/04/2015
Brief summary of issues raised
HSE has no comments to make on this application
Summary of actions taken or show how this has been covered
No further action necessary

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

- Newark and Sherwood District Council - Planning department
- Newark and Sherwood District Council – Environment Health department

This proposal was also publicised on the Environment Agency's website between 15/04/2015 and 15/05/2015, but no representations were received during this period.