Permitting decisions

Variation

We have decided to grant the variation for Methwold Airfield Poultry Unit operated by Annyalla Chicks (UK) Broiler Breeders Limited.

The variation number is EPR/UP3209PN/V003.

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:

- 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

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

New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is now a separate BAT Conclusions document which will set out the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link:

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

Now the BAT Conclusions are published **all new housing within variation applications** issued after the 21st February 2017 must be compliant in full from the first day of operation.

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels for ammonia emissions which will apply to the majority of permits, as well as BAT associated levels for nitrogen and phosphorus excretion.

For some types of rearing practices stricter standards will apply to farms and housing permitted after the new BAT Conclusions are published.

This installation was first permitted in 2018 and therefore all existing housing was considered as new when first permitted. The EPR/UP3209PN/V002 variation issued 17/08/2020 included a review of BAT compliance for new plant introduced and a change in livestock to broiler breeders. This variation EPR/UP3209PN/V003 will not result in any changes to BAT.

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT. The BAT Conclusions document does not have a BAT AEL for broiler breeder laying hens and therefore an ammonia emission limit value has not been included within the permit.

Industrial Emissions Directive (IED)

This permit implements the requirements of the European Union Directive on Industrial Emissions.

Odour/Noise

There are no relevant sensitive receptors within 400 metres of the installation boundary. Therefore there is no requirement for Odour and Noise Management Plans.

As such we are satisfied that there is no significant risk of odour and noise pollution linked to this installation.

Dust and Bioaerosols

The use of Best Available Techniques and good practice will ensure minimisation of emissions. There are measures included within the Permit (the 'Fugitive Emissions' conditions) to provide a level of protection. Condition 3.2.1 'Emissions of substances not controlled by an emission limit' is included in the Permit. This is used in conjunction with condition 3.2.2 which states that in the event of fugitive emissions causing pollution following commissioning of the Installation, the Operator is required to undertake a review of site activities, provide an emissions management plan and to undertake any mitigation recommended as part of that report, once agreed in writing with the Environment Agency.

There is one sensitive receptor within 100m of the Installation boundary, the nearest sensitive receptor (the nearest point of their assumed property boundary) is approximately 70 metres to the east of the installation boundary, this is the farm managers dwelling.

Guidance on our website concludes that applicants need to produce and submit a dust and bioaerosol risk assessment with their applications only if there are relevant receptors within 100 metres of their farm, e.g. the farmhouse or farm worker's houses. Details can be found via the link below:

www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit#air-emissions-dust-and-bioaerosols.

As there is a receptor within 100m of the Installation, the Applicant was required to submit a dust and bioaerosol risk assessment in this format which was received 01/11/2023.

In the guidance mentioned above it states that particulate concentrations fall off rapidly with distance from the emitting source. This fact, together with the proposed good management of the Installation such as keeping areas clean from build-up of dust, and other measures in place to reduce dust and risk of spillages (e.g. litter and feed management/delivery procedures) all reduce the potential for emissions impacting the nearest receptors. The Applicant has confirmed the following measures in their operating techniques to reduce dust:

- Feed systems are sealed to prevent release to atmosphere, dust catchment socks/bags and covers will be in place on all silo pipes and exhausts, feed bins conditions are checked frequently, and feed spills are cleared up immediately. There is no feed milling undertaken on-site.
- Controls on feed and ventilation to help to maintain litter quality. Additional controls include, maintained feed systems and equipment in good working order, stocking density at optimal levels, dust extracted virgin wood shavings are used as initial bedding and additional extra bedding material (in sealed plastic bales) when required.
- Use of acid scrubbers, roof fans and gable end fans on poultry houses, these are checked regularly and adjusted according to the age and requirements of the flock. The ventilation is designed to remove moisture from the poultry houses. Wet acid scrubbers effectively remove particulate dust from the air before it is exhausted, high velocity fan discharge so dust does not settle and collect on shed roofs
- Machinery movements are kept to a minimum during destocking to reduce bird excitement and the breaking up of any litter.
- Clean out and litter removal commences within 24 hours of the birds being depleted so that litter has not had time to dry out excessively, ventilation flaps are closed to prevent dust dispersion, litter is scraped into large heaps within the building to minimise load times. Once all the litter is removed the floors are mechanically swept.

Conclusion

We are satisfied that the measures outlined in the Application will minimise the potential for dust and bioaerosol emissions from the Installation.

Standby Generator

There is one standby generator with a net thermal rated input of 0.640 MWth and it will not be tested more than 50 hours per year or operated more than 500 hours per year (averaged over 3 years).

The standby generator will be used for emergency use only as a temporary power source if there is main power failure.

Ammonia

There is one Special Area of Conservation (SAC), one Special Protection Area (SPA) located within 5 kilometres of the installation. There are four Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There is also one Local Wildlife Site within 2 km of the installation.

Ammonia assessment – SAC/SPA

The following trigger thresholds have been designated for the assessment of European sites:

- If, using the Ammonia Screening Tool (AST v4.6), the process contribution (PC) is below 4% of the relevant critical level (CLe) or critical loads (CLo) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded, detailed ammonia modelling is required, and if the PC from such modelling is below 1% of the relevant critical level (CLe) or critical loads (CLo) then the farm can be permitted with no further assessment.

- Where the PC (after modelling) exceeds 1%, further detailed assessment is required, taking into consideration the ammonia and nitrogen background concentrations and may also require an in-combination assessment.
- Where an in-combination assessment is required, the combined PC for all existing permitted installations identified within 5 km of the SAC/SPA will be considered, together with impacts from other local plans, projects, and non-permitted farms which could act in-combination. The in-combination assessment is limited to those impacts not already included in the relevant background emission baseline.

Screening using detailed modelling (A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Proposed Egg Laying Chicken Houses at Methwold Airfield Poultry Site, off Brandon Road, near Methwold in Norfolk dated 09/06/2023) has determined that the PC on the SAC for ammonia emissions from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. See results below.

Detailed modelling provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU) and we have confidence that we can agree with the report conclusions.

Table 1 – Ammonia emissions

Site	Critical level ammonia µg/m^3	Predicted PC µg/m^3	PC % of Critical level
Breckland SAC	1*	0.002***	0.22***
Breckland SPA	3**	0.009***	0.31***

* Natural England we're consulted and they advised (30/10/2023) that a CLe of 1 µg/m3 for ammonia should be applied across the Breckland SAC at this location. Where 1 µg/m3 is used, and the PC is assessed to be less than the 4% insignificance threshold as in this circumstance, it is not necessary to further consider nitrogen deposition or acid deposition critical load values.

** Natural England we're consulted and they advised (30/10/2023) that a CLe of 3 µg/m3 for ammonia should be applied across the Breckland SPA at this location.

*** These are the figures within the detailed modelling report dated 09/06/2023. AQMAU audited the detailed modelling report and did some sensitivity testing around the correct acid scrubber percentage reduction of 81.85% and the occasional high velocity fan usage and confirmed that the predicted PC for ammonia would be below 1% for Breckland SAC.

After AQMAU had done sensitivity around the correct acid scrubber percentage reduction of 81.85%, the occasional high velocity fan usage and the correct CLo of 3 for nitrogen deposition, screening using detailed modelling (A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Proposed Egg Laying Chicken Houses at Methwold Airfield Poultry Site, off Brandon Road, near Methwold in Norfolk dated 09/06/2023), this determined that the process contributions of nitrogen deposition for Breckland SPA is over the 1% significance threshold and as such it is not possible to conclude no adverse effect alone. In order for us to make a comparison between the impacts on the SPA from the existing 80,000 broiler breeder scenario and the proposed 100,000 broiler breeder scenario, we have factored the figures up in relation to the nitrogen deposition CLo 3 µg/m^3 (Natural England we're consulted and they advised (30/10/2023) that a CLo of 3 µg/m^3 for nitrogen deposition should be applied across the Breckland Forest SSSI at this location). The comparison indicates that the PC incremental increase is less than 1% as follows (using receptor 1 as a worst-case scenario): Nitrogen Deposition incremental increase is 0.57%. Acid Deposition worst case scenario incremental increase is 0.23% (acid deposition figures have not been provided in the detailed modelling. Therefore, the nitrogen deposition PC figure has been divided by 14 to give us an idea of the acid deposition).

Conclusion

In accordance with our process, if the PC incremental increase is 1% or less it is considered insignificant and the changes to the EPR farm activities will not contribute to any significant increase in effects on the Breckland SPA. On this basis we conclude that the permit variation can be granted.

AQMAU have confirmed in their audit that the process contributions of nitrogen deposition and acid deposition for Breckland SPA are less than 1% incremental increase difference between the existing and proposed scenarios so is an insignificance increase in emissions.

It is therefore possible to conclude no likely significant effect.

Natural England replied to our habitat regulations assessment 17/05/2024, and they concurred with the reasoning and conclusions of the appropriate assessment of no adverse effect.

Ammonia assessment – SSSI

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 assessment alone and in combination is required. An in combination assessment will be completed to establish the combined PC for all existing farms identified within 5 km of the SSSI.

Initial screening using the ammonia screening tool version 4.6 (dated 13/10/2023) has indicated that emissions from Methwold Airfield Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of 1µg/m^3 if they are within 2218 metres of the emission source.

Beyond 2218m the PC is less than 0.2µg/m^3 (i.e. less than 20% of the precautionary 1µg/m^3 critical level) and therefore beyond this distance the PC is insignificant. In this case most of the SSSIs are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m^3 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 this case the 1µg/m^3 level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely damage to these sites.

Table 5 – SSSI Assessment

Name of SSSI	Distance from site (m)
Breckland Farmland SSSI	2831
Weeting Health SSSI	4992
The Brinks, Northwold SSSI	3536

Screening using the detailed modelling (A report on the modelling of the dispersion and deposition of ammonia from the proposed egg laying chicken house at Methwold Airfield Poultry Unit, off Brandon Road, near Methwold in Norfolk dated 09/06/2023) has indicated that the PC for Breckland Forest SSSI is predicted to be less than 20% of the critical level for ammonia emissions/nitrogen deposition/acid deposition therefore it is possible to conclude no damage. The results of the detailed modelling are given in the tables below.

The ammonia modelling assessment has been audited in detail by our Air Quality Modelling and Assessment Unit and we have confidence that we can agree with the report conclusions.

Table 6 – **Ammonia emissions**

Site	Ammonia CLe (µg/m^3)	PC (µg/m^3)	PC % critical level
Breckland Forest SSSI	3*	0.009**	0.029**

* Natural England we're consulted and they advised (30/10/2023) that a CLe of 3 µg/m^3 for ammonia should be applied across the Breckland Forest SSSI at this location.
** These are the figures within the detailed modelling report dated 09/06/2023. AQMAU audited the detailed modelling report and did some sensitivity testing around the correct acid scrubber percentage reduction of 81.85% and the occasional high velocity fan usage and confirmed that the predicted PC for ammonia would be below 20% for Breckland Forest SSSI.

Table 7 – Nitrogen deposition

Site	Critical load kg N/ha/yr*	PC kg N/ha/yr.	PC % critical load
Breckland Forest SSSI	3*	0.072**	2.4***

* Natural England we're consulted and they advised (30/10/2023) that a CLo of 3 µg/m^3 for nitrogen deposition should be applied across the Breckland Forest SSSI at this location.

** This figure is within the detailed modelling report dated 09/06/2023.
*** The Clo figure used in the detailed modelled was 10, therefore this figure has been adjusted for a CLo of 3. AQMAU audited the detailed modelling report and did some sensitivity testing around the correct acid scrubber percentage reduction of 81.85%, the occasional high velocity fan usage and the correct CLo of 3 and confirmed that the predicted PC for nitrogen deposition would be below 20% for Breckland Forest SSSI.

Table 8 – Acid deposition

Site	Critical load keq/ha/yr*	PC keq/ha/yr.	PC % critical load
Breckland Forest SSSI	0.536*	0.0051**	1***

* Natural England we're consulted and they advised (30/10/2023) that a CLo of 0.536 µg/m^3 for acid deposition should be applied across the Breckland Forest SSSI at this location.
**Acid deposition figures have not been provided in the detailed modelling, so the nitrogen deposition PC figure has been divided by 14 to give us an idea of the acid deposition.
*** AQMAU audited the detailed modelling report and did some sensitivity testing around acid deposition with the correct acid scrubber percentage reduction of 81.85% and the occasional high velocity fan usage and confirmed that the predicted PC for acid deposition would be below 20% for Breckland Forest SSSI.

No further assessment is required.

Ammonia assessment - LWS

The following trigger thresholds have been applied for the assessment of these 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.

Initial screening using ammonia screening tool version 4.6 (dated 13/10/2023) has indicated that emissions from Methwold Airfield Poultry Unit will only have a potential impact on the LWS site with a precautionary critical level of 1µg/m^3 if they are within 760 metres of the emission source.

Beyond 760m the PC is less than 1µg/m^3 and therefore beyond this distance the PC is insignificant. In this case the LWS is beyond this distance (see table below) and therefore screens out of any further assessment.

Table 9 – LWS Assessment

Name of LWS	Distance from site (m)
Cut-off Channel (Feltwell) LWS	1889

Decision checklist

Aspect considered	Decision
Receipt of application	
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 to be confidential. The decision was taken in accordance with our guidance on confidentiality.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
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.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. We have consulted Natural England on our Habitats Regulations stage one and stage two assessments, and taken their comments into account in the permitting decision. See ‘Ammonia assessment – SAC/SPA’ key issues. Natural England replied 17/05/2024 that they concurred with the reasoning and conclusions of the appropriate assessment of no adverse effect.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator’s risk assessment is satisfactory.
Operating techniques	
General operating techniques	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. The key revised operating techniques are as follows:

Aspect considered	Decision
	• All 6 poultry houses are ventilated via wet acid scrubbers with 6 outlets on each house. Back up ventilation is provided by high velocity roof fans and gable end fans on all 6 poultry houses, only to be used as a contingency if one or more acid scrubber is not in use, or for temperature control during times of extreme hot weather. • Sulphuric acid tanks within each wet acid scrubber unit will be compliant with CIRIA C736 guidance and the tanks will be bunded with at least 110% capacity of the tank volume. • Roof water from the poultry houses goes to stone drains acting as soakaways adjacent to the poultry houses. These stone drains overflow to an unlined attenuation pond which acts as a soakaway, at the southeast of the installation. • Water draining from the yard will be separated and facilitated towards either the dirty water tanks or the unlined attenuation pond, using a divertor valve. • At the end of the growing period the houses are depopulated, the litter is removed, the houses and equipment washed and disinfected before being restocked. • Litter is sold and exported from the installation and wash water is conveyed to dirty water tanks for temporary storage before being exported off-site. • There will be one stand-by generator with an integrated diesel storage tank on site. • Mortalities are removed daily and stored in secure containers prior to being collected for removal under the Fallen Stock Scheme. The proposed techniques for priorities for control are in line with the Intensive Farming Sector Guidance Note EPR6.09 and we consider them to represent appropriate techniques for the facility.
Permit conditions	
Updating permit conditions during consolidation	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.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. The improvement condition is carried over from the previous permit and has been left in this variation notice to show it has now been completed.
Emission limits	We have decided that emission limits are required in the permit. BAT AELs have been added in line with the Intensive Farming sector BAT conclusions document dated 21/02/2017. These limits are included in permit table S3.3.
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. These monitoring requirements have been imposed in order to ensure compliance with Intensive Farming BAT conclusions document dated 21/02/2017.
Reporting	We have specified reporting in the permit.

Aspect considered	Decision
	We made these decisions in order to ensure compliance with Intensive Farming BAT conclusions document dated 21/02/2017.
Operator competence	
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.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: "The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation." We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.