

Permitting decisions

Variation

We have decided to grant the variation for Gulham Fields Farm Poultry Unit operated by Mercer Farming Limited.

The variation number is EPR/RP3933EU/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
- 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

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 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 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 phosphorous excretion.

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

This variation determination includes a review of BAT compliance for the new housing introduced with this variation.

New BAT conclusions review

There are 34 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

The Operator has confirmed their compliance with all BAT conditions for the new housing, in their document reference 'Gulham Fields Farm' submitted with their application.

The following is a more specific review of the measures the Operator has applied to ensure compliance with the above key BAT measures.

BAT measure	Operator compliance measure
BAT 3 - Nutritional management - Nitrogen excretion	The Operator has confirmed it will demonstrate that the installation achieves levels of Nitrogen excretion below the required BAT-AEL of 0.6 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content.
BAT 4 - Nutritional management - Phosphorous excretion	The Operator has confirmed it will demonstrate that the installation achieves levels of Phosphorous excretion below the required BAT-AEL of 0.25 kg P ₂ O ₅ /animal place/year by an estimation using manure analysis for total Phosphorous content.
BAT 24 - Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT conclusions.
BAT 25 - Monitoring of emissions and process parameters - Ammonia emissions	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 27 - Monitoring of emissions and process parameters - Dust emissions	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT conclusions. The Operator has confirmed they will report the dust emissions to the Environment Agency annually by multiplying the dust emissions factor for broilers by the number of birds on site.

BAT measure	Operator compliance measure
BAT 32 - Ammonia emissions from poultry houses - Broilers	<p>The BAT-AEL to be complied with is 0.08 kg NH₃/animal place/year.</p> <p>The Operator will meet this as the emission factor for broilers is 0.034 kg NH₃/animal place/year.</p> <p>The Installation does not include an air abatement treatment facility; hence the standard emission factor complies with the BAT AEL.</p>

More detailed assessment of specific BAT measures

Ammonia emission controls – BAT Conclusion 32

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT. The new BAT conclusions include a set of BAT-AEL's for ammonia emissions to air from animal housing for broilers.

Industrial Emissions Directive (IED)

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

Groundwater and soil monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain a condition relating to protection of soil, groundwater and 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 the 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 (SCR) for Gulham Fields Farm Poultry Unit (dated 24/05/22) demonstrates that there are no hazards or likely pathway to land or groundwater and no historic contamination on site that may present a hazard from the same contaminants. **Therefore, on the basis of the risk assessment presented in the SCR, we accept that they have not provided base line reference data for the soil and groundwater at the site at this stage and although condition 3.1.3 is included in the permit no groundwater monitoring will be required.**

Odour and Noise

There are no sensitive receptors within 400 metres of the installation boundary as a result of the increase to the installation boundary. As a result, the operator was not required to submit odour or noise management plans.

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 100 metres of the Installation boundary, the nearest sensitive receptor (the nearest point of their assumed property boundary) is approximately 24 metres to the south of the installation boundary.

Guidance on our website concludes that applicants need to produce and submit a dust and bio aerosol management plan 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.

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 Operator has included control measures in their dust and bioaerosol management plan to reduce dust (which will inherently reduce bioaerosols) for the following potential dust sources:

- Feed deliveries
- Feeding systems
- Bedding
- Litter management
- Stock inspections
- Ventilation
- Clean out operations
- Birds

Conclusion

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

Ground source heating system

Heat for poultry houses 1 to 6 is provided by a closed loop ground source heating system; there is no discharge from the system to either ground or surface water. In the unlikely event of the system needing to be flushed out, all liquid will be directed to the underground dirty water tanks, awaiting disposal by a licensed waste carrier; clean water systems will not be contaminated.

The medium for the system is water with anti-freeze, biocide and corrosion and scale inhibitor. Any premixed or neat glycol remaining is stored on site in an IBC, in the site chemical store, clearly marked for topping the system up if required. No more than 500ltrs pre-mixed or 100ltrs concentrated fluid is stored on site.

The system is fully automated, with computer control systems continuously monitoring pressure, temperature and energy consumption. The system is fully alarmed and will automatically switch to the LPG back-up system

in the event of malfunction. A maintenance and service contract is in place with the installers with 24-hour breakdown cover.

Standby Generator

The standby generator has a thermal rated input of > 1MWth (1.21 MWth) and is operated for approximately 48 hours/annum for testing purposes. The addition of MCPD monitoring requirements will be handled via a generic project for existing MCPs at a future date.

Ammonia

There are no Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar sites located within 5 kilometres of the installation. There are two Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There is also one Local Wildlife Site (LWS) within 2 kilometres of the installation.

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, has indicated that emissions from Gulham Fields Farm Poultry Unit will only have a potential impact on SSSI with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 1,661 metres of the emission source.

Beyond 1,661 metres the PC is less than $0.2\mu\text{g}/\text{m}^3$ (i.e. less than 20% of the precautionary $1\mu\text{g}/\text{m}^3$ critical level) and therefore beyond this distance the PC is insignificant. In this case the SSSI is beyond this distance (see table below) and therefore screens out of any further assessment.

Where the precautionary level of $1\mu\text{g}/\text{m}^3$ 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 $1\mu\text{g}/\text{m}^3$ 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 1 – SSSI Assessment

Name of SSSI	Distance from site (m)
Normanby Meadow	4,930

Screening using the ammonia screening tool version 4.6, has indicated that the PC for Kingerby Beck Meadows 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 are given in the tables below.

Table 2 – Ammonia emissions

Site	Ammonia Cle ($\mu\text{g}/\text{m}^3$)	PC ($\mu\text{g}/\text{m}^3$)	PC % critical level
Kingerby Beck Meadows SSSI	3*	0.39	13

* Critical level value taken from APIS website (www.apis.ac.uk) – 13/05/22

Table 3 – Nitrogen deposition

Site	Critical load kg N/ha/yr*	PC kg N/ha/yr.	PC % critical load
Kingerby Beck Meadows SSSI	20	2.024	10.1

* Critical load values taken from APIS website (www.apis.ac.uk) – 13/05/22

Table 4 – Acid deposition

Site	Critical load keq/ha/yr*	PC keq/ha/yr.	PC % critical load
Kingerby Beck Meadows SSSI	2.028	0.145	7.1

* Critical load values taken from APIS website (www.apis.ac.uk) – 13/05/22

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 has indicated that emissions from Gulham Fields Farm Poultry Unit will only have a potential impact on the LWS site with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if it is within 570 metres of the emission source.

Beyond 570 metres the PC is less than $1\mu\text{g}/\text{m}^3$ 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 5 – LWS Assessment

Name of LWS	Distance from site (m)
Kingerby Beck Meadows	919

No further assessment is required.

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.
Consultation	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> • Local Authority – Planning and Environmental Health – West Lindsey District Council • Health and Safety Executive (HSE) • Director of Public Health • UK Health Security Agency (UKHSA) <p>The comments and our responses are summarised in the consultation section.</p>
The facility	
The regulated facility	<p>We considered the extent and nature of the facility at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’.</p> <p>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.</p>
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 plan is included in the permit
Site condition report	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 and baseline reporting under the Industrial Emissions Directive.
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>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.</p> <p>We consider that the application will not affect any sites of nature conservation,</p>

Aspect considered	Decision
	<p>landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>
Environmental risk assessment	
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>
Operating techniques	
General operating techniques	<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.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>The operating techniques include the following:</p> <ul style="list-style-type: none"> • Heat for houses 1 to 6 is provided by a closed-loop ground source heating system and for houses 7 and 8 by hot water blown air heaters produced by an LPG system. • All poultry houses are ventilated by high velocity roof fans. • Water is supplied via a nipple drinking system. • Mortalities are collected daily and stored in a secure container on site awaiting regular collection under the National Fallen Stock Scheme by a licensed collection agent. • Water from the wash out of poultry houses is channelled to dirty water tanks to await export off site for spreading on third party owned land. • Manure is removed from the houses and exported from the installation to a power station as a fuel source or for spreading on land owned by the operator. • Uncontaminated yard water drains via French drains to an unlined attenuation pond to the north of the installation boundary. • Roof water from all the houses drains via French drains, and a swale to the east of the houses, to the attenuation pond. The attenuation pond has an outlet to ditch.
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 permit(s).
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
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

Aspect considered	Decision
	dated 21/02/17. These limits are included in permit table S3.3.
Monitoring	<p>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.</p> <p>These monitoring requirements have been imposed in order to ensure compliance with Intensive Farming BAT conclusions document dated 21/02/17.</p>
Reporting	<p>We have specified reporting in the permit.</p> <p>We made these decisions in order to ensure compliance with Intensive Farming BAT conclusions document dated 21/02/17.</p>
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	<p>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.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>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.</p> <p>Any unique condition, that is a condition distinct from a site specific condition needed to deliver the legislative standards need to be justified</p> <p>Provide additional text if needed, for example where specific comment on the growth duty is made by the applicant in their application.</p>

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

Response received on 17/01/23 from
UKHSA
Brief summary of issues raised
<p>Confirmed that the main emissions of potential public health significance are emissions to air of dust, bioaerosols and ammonia and noted that the nearest sensitive human receptor is located approximately 25 metres from the site boundary.</p> <p>Noted that no detail was included in the application of the outputs from the H1 screening assessments for ammonia and odour, and therefore potential human health impacts could not be assessed, and that no odour management plan was included with the application.</p> <p>Noted that the applicant had provided a dust management plan proposing measures to mitigate dust emissions from site.</p> <p>Recommended that the Environment Agency ensures that the H1 assessment screens out the requirement for further detailed assessment of dust, ammonia and odour at sensitive human receptor locations, and satisfies itself that the current odour management plan is still suitable for preventing off-site impacts when factoring in the proposed operational changes in this variation application.</p> <p>It is assumed that the installation will comply in all respects with the requirements of the permit, including the application of Best Available Techniques (BAT), which should ensure that emissions present a low risk to human health.</p>
Summary of actions taken or show how this has been covered
<p>The installation will be operated and managed in accordance with BAT.</p> <p>As there are relevant sensitive receptors within 100 metres of the Installation boundary, the operator was required to submit a dust and bioaerosols risk assessment and management plan, in accordance with our guidance. Appropriate measures have been proposed to manage fugitive emissions, in accordance with our technical guidance note for intensive farming, including ammonia, bioaerosols and particulates and we are satisfied that the proposed measures will minimise the potential for emissions from the installation.</p> <p>As there are no relevant sensitive receptors within 400 metres of the installation boundary, the operator was not required to submit odour or noise management plans, in accordance with our guidance.</p> <p>Standard conditions 3.2.1, 3.3.1, and 3.4.1 concerning fugitive emissions, odour and noise have been included in the permit.</p>

Response received on 12/10/22 from
West Lindsey District Council
Brief summary of issues raised
Response confirming that Planning Permission was granted by West Lindsey District Council for two additional poultry sheds on 6th October 2022.
Summary of actions taken or show how this has been covered
No action required.

No further responses were received.