

Permitting decisions

Variation

We have decided to grant the variation for East House Farm operated by Mr Hugh Carter.

The variation number is EPR/HP3733ZC/V004.

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

This variation increases the bird places from 70,720 to 124,000 free range layer places, with the addition of two new poultry sheds numbered 7 and 8, and an increase in the installation boundary to include the ranging areas.

Intensive Rearing of Poultry or Pigs BAT Conclusions document

The 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 were published.

This variation determination includes a review of BAT compliance for new housing introduced with this variation. We have also reviewed the existing housing is compliant with BAT.

BAT conclusions review

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

The Applicant has confirmed their compliance with all BAT conditions for the new housing, in their document referenced East House Farm submitted with application EPR/HP3733ZC/V004 received 19/06/2023 which has been referenced in Table S1.2 Operating Techniques of the permit.

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

BAT measure	Applicant compliance measure
BAT 3 - Nutritional management - Nitrogen excretion	The Applicant has confirmed they will demonstrate they can achieve levels of Nitrogen excretion below the required BAT-AEL of 0.8 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content. Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 4 Nutritional management - Phosphorus excretion	The Applicant has confirmed they will demonstrate they can achieve levels of Phosphorus excretion below the required BAT-AEL of 0.45 kg P ₂ O ₅ animal place/year by an estimation using manure analysis for total Phosphorus content. Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorus excretion	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions. Estimation confirmed by using manure analysis for total nitrogen and total phosphorus content.
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 26 Monitoring of emissions and process parameters - Odour emissions	The approved OMP includes the following details for on Farm Monitoring and Continual Improvement: <ul style="list-style-type: none"> • Twice daily olfactory checks coinciding with stock inspections. • Humidity recorded daily and maintained in the range of 55-65%. • Monitoring carried out weekly by means of 'sniff testing' at the monitoring points by persons not involved directly with the operations of the installation. In the event of high odour scores contingency measures will be implemented. • Monitoring procedure/frequency to be reviewed annually or in the event of a complaint.

<p>BAT 27 Monitoring of emissions and process parameters</p> <ul style="list-style-type: none"> - Dust emissions 	<p>Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.</p> <p>The Applicant has confirmed they will report the dust emissions to the Environment Agency annually by multiplying the dust emissions factor for laying hens by the number of birds on site.</p>
<p>BAT 31 Ammonia emissions from poultry houses</p> <ul style="list-style-type: none"> - Laying hens 	<p>The BAT-AEL to be complied with is 0.013 kg NH₃/animal place/year. The Applicant will meet this emission factor for layers within the multi-tier aviary system (houses 4 to 8), manure is removed by belts twice a week. The layers barn and free range aviary emission factor of 0.08 will comply with this BAT AEL.</p> <p>House 3 is existing housing with a flat deck perchery with a deep pit, the applicant has confirmed they will comply with BAT 31 b 0 and the BAT-AEL of 0.25 kg NH₃/animal place/year. The layers barn and free range perchery with deep litter emission factor of 0.21 will comply with this BAT AEL.</p> <p>Houses 1 and 2 have been decommissioned.</p>

More detailed assessment of specific BAT measures

Ammonia emission controls – BAT conclusion 31

The new BAT conclusions include a set of BAT-AEL's for ammonia emissions to air from animal housing for laying hens.

There is a footnote in some of the Ammonia BAT-AELs allowing a higher AEL for existing plant. 'New plant' is defined as plant first permitted at the site of the farm following the publication of the BAT conclusions. 'Existing plant' is defined in the BREF as any plant that is not a 'new plant'. The key phrase is 'first permitted'.

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 East House Farm (received 19/06/2023) 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

Intensive farming is by its nature a potentially odorous activity. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance: (http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf).

Condition 3.3 of the environmental permit reads as follows:

“Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.”

Under section 3.3 of the guidance an Odour Management Plan (OMP) is required to be approved as part of the permitting process, if as is the case here, sensitive receptors (sensitive receptors in this instance excludes properties associated with the farm) are within 400m of the Installation boundary. It is appropriate to require an OMP when such sensitive receptors have been identified within 400m of the installation to prevent, or where that is not practicable, to minimise the risk of pollution from odour emissions.

The risk assessment for the Installation provided with the Application lists key potential risks of odour pollution beyond the Installation boundary. These activities are as follows:

- Broiler production
- Manufacture and selection of feed
- Feed delivery and storage
- Ventilation and heating systems
- Litter management
- Carcass disposal
- House clean out
- Used litter
- Washing operations including vehicles
- Fugitive emissions
- Dirty water management
- Abnormal operations
- Waste production/storage
- Materials/storage

Odour Management Plan Review

The Installation is located within 400m of sensitive receptors, as listed below (please note, the distance stated is only an approximation from the Installation boundary to the assumed boundary of the property):

1. Trimdon Cottage (residential property) – approximately 240m west of the Installation boundary.
2. East Carrside Farm – approximately 384m west of the Installation boundary.
3. Sunnyside Farm – approximately 377m west of the Installation boundary.
4. Lillium House (residential property) – approximately 388m south of the Installation boundary.
5. Humble Knowle (residential property) – approximately 330m south of the Installation boundary.
6. Humble Knowle plantation (residential property) – approximately 181m south of the Installation boundary.

7. West Holling Carr Farm – approximately 299m east of the Installation boundary.
8. Beanley Carr Farm – approximately 105m east of the Installation boundary.
9. Orchard Cottage (residential property) – approximately 371m east of the Installation boundary.
10. Dropswell Farm (commercial) – approximately 216m east of the Installation boundary.

Please note the following three properties are also listed as sensitive receptors in the receptor document supporting information submitted with this application, however it has been confirmed that these three properties are related to the operation of the installation so are not considered to be sensitive receptors.

East House Farmhouse (residential property) – approximately 5m east of the Installation boundary.

The Wicket (residential property) – on site.

East House Farm Cottage (residential property) – approximately 5m west of the Installation boundary.

The operator has provided an OMP (received 21/06/2023) and this has been assessed against the requirements of 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 (version 2), Appendix 4 guidance 'Odour Management at Intensive Livestock Installations' and our Top Tips Guidance and Poultry Industry Good Practice Checklist (August 2013) as well as the site specific circumstances at the Installation. We consider that the OMP is acceptable because it complies with the above guidance, with details of odour control measures, contingency measures and complaint procedures described below.

The Operator is required to manage activities at the Installation in accordance with condition 3.3.1 of the Permit and its OMP. The OMP includes odour control measures, in particular, procedural controls such as free range egg production, manufacture and selection of feed, feed delivery and storage, ventilation and dust, litter management, carcase disposal, house clean out, used litter, washing operations, fugitive emissions, dirty water management, abnormal operations, waste/materials storage and complaint procedures. The operator has identified the potential sources of odour (see risks bullet pointed above), as well as the potential risks and problems, and detailed actions taken to minimise odour including contingencies for abnormal operations. It should also be noted that having consulted with the Local Authority (please see consultation response below) there are no history of odour complaints at this existing site.

The OMP also provides a suitable procedure in the event that complaints are made to the Operator. The OMP is required to be reviewed at least every year (as committed to in the OMP) and/or after a complaint is received, whichever is the sooner.

The Environment Agency has reviewed the OMP and considers it complies with the requirements of our H4 Odour management guidance note. We agree with the scope and suitability of key measures, but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the Operator.

Conclusion

As the sensitive receptors are more than 100m away from the installation boundary, and there have been no known odour complaints from this site, it's not considered to be high risk in relation to odour.

We have assessed the OMP and the H1 risk assessment for odour and conclude that the Applicant has followed the guidance set out in H4 Odour management guidance note. Although there is the potential for odour pollution from the Installation, the Operator's compliance with the Permit and its OMP will minimise the risk of odour pollution beyond the Installation boundary. The risk of odour pollution at sensitive receptors beyond the Installation boundary is therefore not considered significant.

Noise

Intensive farming by its nature involves activities that have the potential to cause noise pollution. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance. Under section 3.4 of this guidance a Noise Management Plan (NMP) must be approved as part of the permitting determination, if there are sensitive receptors within 400m of the Installation boundary.

Condition 3.4 of the Permit reads as follows:

“Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable to minimise the noise and vibration”.

There are sensitive receptors within 400 metres of the Installation boundary as listed in the ‘odour’ section above. The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation, and further details are provided below.

The risk assessment for the Installation provided with the Application lists key potential risks of noise pollution beyond the Installation boundary. These activities are as follows:

- Feed deliveries
- Standby generator
- Ventilation fans
- Feeding systems
- Fuel deliveries
- Bird catching
- Clean out operations
- Maintenance/repair
- Set up/placement
- Alarm systems

Noise Management Plan Review

The sensitive receptors have been listed under the ‘Odour’ section.

The sensitive receptors have been considered under odour and noise and does not include the operator’s property and other people associated with the farm operations as odour and noise are amenity issues.

A noise management plan (NMP) has been provided by the operator (received 21/06/2023) as part of the application supporting documentation.

The NMP also provides a suitable procedure in the event of complaints in relation to noise. The NMP will be reviewed annually or following any changes (as committed to in the NMP).

Operations with the most potential to cause noise nuisance have been assessed and control measures put in place for all vehicles accessing the site and manoeuvring around, vehicles and machinery carrying out operations on site. This includes the delivering of feed and birds, and to remove used litter and dirty water. Other operations with the potential to cause noise nuisance for which control measures have been put in place include; ventilation fans, alarm system and stand-by generator, building works and repairs, and animal noise.

We have included our standard noise and vibration condition 3.4.1 in the Permit, which requires that emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the Operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan (which is captured through condition 2.3 and Table S1.2 of the Permit), to prevent or where that is not practicable to minimise the noise and vibration.

We are satisfied that the manner in which operations are carried out on the Installation will minimise the risk of noise pollution.

Conclusion

We have assessed the NMP and the H1 risk assessment for noise and conclude that the Applicant has followed the guidance set out in EPR 6.09 Appendix 5 ‘Noise management at intensive livestock installations’. We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of noise pollution / nuisance.

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 are 5 sensitive receptors within 100m of the Installation boundary, the nearest sensitive receptors (the nearest point of their assumed property boundary) are East House Farmhouse and The Wicket, which are both within the installation boundary.

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 are receptors within 100m of the Installation, the Applicant was required to submit a dust and bioaerosol risk assessment in this format.

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 (which will inherently reduce bioaerosols):

- Feed systems are sealed to prevent release to atmosphere, feed bins conditions are checked frequently, and feed spills are cleared up immediately. There is feed milling undertaken on-site via a mobile mill and static mill, these are managed to reduce the release of dust and bioaerosols.
- Controls on feed and ventilation to help to maintain litter quality. Additional controls include nipple drinking systems, insulated walls and ceilings, concrete floors, stocking density at optimal levels, additional extra bedding material (in sealed plastic bales) when required.
- Use of 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.
- Litter humidity is controlled between 55-65% keeping the balance between dust and odour production. Litter is transported in covered trailers. Litter is tipped carefully into trailers, which are parked close to the poultry house doors, with avoidance of double handling.

Conclusion

We are satisfied that the measures outlined in the dust management plan for this Application received 14/09/2023 will minimise the potential for dust and bioaerosol emissions from the Installation.

Biomass boiler

The applicant is varying their permit to include a new biomass boiler with a net rated thermal input of 0.42 MW.

The Environment Agency has assessed the pollution risks and has concluded that air emissions from small biomass boilers are not likely to pose a significant risk to the environment or human health providing certain conditions are met. Therefore a quantitative assessment of air emissions will not be required for poultry sites where:

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the aggregate boiler net rated thermal input is less than or equal to 4 MWth, and no individual boiler has a net thermal input greater than 1 MWth, and;

- the stack height must be a minimum of 5 metres above the ground (where there are buildings within 25 metres the stack height must be greater than 1 metre above the roof level of buildings within 25 metres (including building housing boiler if relevant) and;
- there are no sensitive receptors within 50 metres of the emission points.

This is in line with the Environment Agency's document "Air Quality and Modelling Unit C1127a Biomass firing boilers for intensive poultry rearing", an assessment has been undertaken to consider the proposed addition of the biomass boilers.

Our risk assessment has shown that the biomass boiler should meet the requirements of the criteria above, and are, therefore, considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

In accordance with the Environment Agency's Air Quality Technical Advisory Guidance 14, for combustion plants under 1 MW, no habitats assessment is required for European Sites or Sites of Special Scientific Interest if they are 500m away and no habitat assessment is required for Local nature sites if over 100m away. There are no habitat sites within these distances. Therefore this proposal is considered acceptable, and no further assessment is required.

Heat Exchangers

Heat exchangers are being fitted on poultry houses 7 and 8 with this application.

Each of the 2 heat exchangers will be positioned adjacent the poultry houses, centrally along the length of each house with air being drawn from the poultry houses and passing through a matrix of pipes of a high thermal conductivity material before being exhausted to atmosphere by a high velocity extraction fan at the end of the machine. Clean air is drawn into the machine passing around the pipe matrix allowing heat transference to occur from the warm air drawn out of the poultry houses. This air is then blown back centrally into the poultry houses and then evenly distributed along the length of poultry houses by means of circulation fans to ensure even distribution of air and temperature. Typically this will reduce the consumption of LPG and in turn lead to reduced humidity levels and gasses caused by combustion.

A reduction in emissions has not been claimed with this application due to the bird type. Each heat exchanger has its own internal tank for condensate and is emptied at cycle end and spread on Operator land with the dirty water tanks. The operation and maintenance of the heat exchangers will be in accordance with manufacturer's instructions.

Standby Generator

There is one standby generator with a net thermal rated input of < 1MWth and its operated for a maximum of 1 hour/week for testing purposes. The generator will not be operated more than 500hrs per annum averaged over 3 years and is used only as backup for mains interruption.

Ammonia

The applicant has demonstrated that the housing will meet the relevant NH₃ BAT-AEL.

There are no Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites located within 5 kilometres of the installation boundary. There are 12 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also 9 Local Wildlife Sites (LWS) and 2 Local Nature Reserves (LNR) within 2 km 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 (dated 19/06/2023) has indicated that emissions from East House Farm will only have a potential impact on SSSI site with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 3642 metres of the emission source.

Beyond 3642m 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 7 of the SSSIs are beyond this distance (see table below) and therefore screen 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)
Quarrington Hill Grasslands SSSI	5788
Bishop Middleham Quarry SSSI	5251
Raisby Hill Grassland SSSI	4879
Town Kelloe Bank SSSI	4159
The Bottoms SSSI	4626
Wingate Quarry SSSI	3761
Castle Eden Dene SSSI	5667

Raisby Hill Quarry SSSI is a distance of 3259m away from the Installation, however this site is considered to be of special interest for its nationally important geological features. So no further ammonia assessment was deemed necessary for this SSSI.

Screening using the ammonia screening tool version 4.6 (dated 19/06/2023) has indicated that the PC for Trimdon Limestone Quarry and Pike Whin Bog 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 ammonia screening tool version 4.6 are given in the tables 2 to 4 below.

Table 2 – Ammonia emissions

Site	Ammonia Cle ($\mu\text{g}/\text{m}^3$)	PC ($\mu\text{g}/\text{m}^3$)	PC % critical level
Trimdon Limestone Quarry SSSI	3*	0.319	10.6
Pike Whin Bog SSSI	3*	0.296	9.9

* CLe of 3 for ammonia obtained from APIS 19/06/2023, says lichens and bryophytes are not integral to these habitat sites

Table 3 – Nitrogen deposition

Site	Critical load kg N/ha/yr*	PC kg N/ha/yr.	PC % critical load
Trimdon Limestone Quarry SSSI	10	1.656	16.6
Pike Whin Bog SSSI	10	1.540	15.4

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/06/2023

Table 4 – Acid deposition

Site	Critical load keq/ha/yr*	PC keq/ha/yr.	PC % critical load
Trimdon Limestone Quarry SSSI	4.856	0.118	2.4
Pike Whin Bog SSSI	1.998	0.110	5.5

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/06/2023

Screening using the detailed modelling (A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Egg Laying Chicken Houses at East House Farm, Trimdon Village in County Durham dated 02/02/2023) has indicated that the PC for Charity Land SSSI and Fishburn Grassland 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 5 to 7 below.

Table 5 – Ammonia emissions

Site	Critical level ammonia µg/m ³	Predicted process contribution µg/m ³	% of critical level
Charity Land SSSI	3*	0.188	6.26
Fishburn Grassland SSSI	3*	0.064	2.13

* CLe of 3 for ammonia obtained from APIS 19/06/2023, says lichens and bryophytes are not integral to these habitat sites

Table 6 – Nitrogen deposition

Site	Critical load kg N/ha/yr*	Predicted PC kg N/ha/yr.	PC % of critical load
Charity Land SSSI	20**	1.464	7.32
Fishburn Grassland SSSI	15***	0.332	2.21

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/06/2023

** The detailed modelling report used a critical load of 20 kg N/ha/yr, but it is 10 kg N/ha/yr on the APIS website for this SSSI. When AQMAU audited the modelling they used 10 kg N/ha/yr but this did not change their conclusions.

*** The detailed modelling report used a critical load of 15 kg N/ha/yr, but it is 10 kg N/ha/yr on the APIS website for this SSSI. When AQMAU audited the modelling they used 10 kg N/ha/yr but this did not change their conclusions.

Table 7 – Acid deposition

Site	Critical load keq/ha/yr*	Predicted PC keq/ha/yr.**	PC % of critical load
Charity Land SSSI	5.071	0.105	2.1
Fishburn Grassland SSSI	4.856	0.024	0.5

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/09/2023

** There were no results shown for acid deposition, so we have estimated this from the nitrogen deposition PC divided by 14

The ammonia modelling assessment 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. This modelling report confirms the SSSI's discussed in this section are 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 ranging emission factors used in the detailed modelling report (section 3.5.2) were not in line with the Environment Agency's guidance on ranging emissions, therefore AQMAU followed the current Environment Agency ranging emission guidance for their audit (0.225 kg NH₃/bird place/year which was further factored down by 20%). They concluded that ammonia, nitrogen deposition and acid deposition process contributions (PC) predicted at all habitat sites are unlikely to exceed any relevant screening threshold for the critical levels or critical loads.

No further assessment is required for the SSSI's.

Ammonia assessment - LWS/ LNR

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 19/06/2023) has indicated that emissions from East House Farm will only have a potential impact on the LWS/LNR sites with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 1501 metres of the emission source.

Beyond 1501m the PC is less than $1\mu\text{g}/\text{m}^3$ and therefore beyond this distance the PC is insignificant. In this case 10 of the LWS/LNRs are beyond this distance (see table below) and therefore screen out of any further assessment.

Table 8 – LWS/LNR Assessment

Name of LWS/LNR	Distance from site (m)
Castle Eden Walkway LNR	2478
Raisby Way and Trimdon Grange Quarry LNR	2688
Deaf Hill Pond LWS	2930
Deaf Hill Marsh LWS	2760
Carstead Wood West LWS	2607
Hurworth Burn Reservoir LWS	2012
Whin Houses Heath LWS	2954
Trimdon Grange Pit Heap LWS	2379
Trimdon Grange and Railway LWS	2691
Mill House Pond LWS	2720

Screening using the ammonia screening tool version 4.6 (dated 19/06/2023) has determined that the PC on the Cleveland Gorse LWS for ammonia emissions/nitrogen deposition/acid deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect. See results below.

Table 9 - Ammonia emissions

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Cleveland Gorse LWS	3*	1.062	35.4

* CLe 3 applied as no protected lichen or bryophytes species were found when checking Easimap layer

Table 10 – Nitrogen deposition

Site	Critical load kg N/ha/yr. *	Predicted PC kg N/ha/yr.	PC % of critical load
Cleveland Gorse LWS	10	5.515	55.15

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/06/2023

Table 11 – Acid deposition

Site	Critical load keq/ha/yr*	Predicted PC keq/ha/yr.**	PC % of critical load
Cleveland Gorse LWS	2.502	0.394	15.75

* Critical load values taken from APIS website (www.apis.ac.uk) – 19/06/2023

** There were no results shown for acid deposition, so we have estimated this from the nitrogen deposition PC divided by 14

Further to this 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. This modelling report confirms the closest LWS's discussed in this section are predicted to be less than 100% of the critical level for ammonia emissions/nitrogen deposition/acid deposition therefore it is possible to conclude no damage.

The ranging emission factors used in the detailed modelling report (section 3.5.2) were not in line with the Environment Agency's guidance on ranging emissions, therefore AQMAU followed the current Environment Agency ranging emission guidance for their audit (0.225 kg NH₃/bird place/year which was further factored down by 20%). They concluded that ammonia, nitrogen deposition and acid deposition process contributions (PC) predicted at all habitat sites are unlikely to exceed any relevant screening threshold for the critical levels or critical loads.

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/Engagement	
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>No responses were received.</p> <p>We consulted the following organisations:</p> <p>Durham County Council Environmental Health</p> <p>Health and Safety Executive</p> <p>Director of Public Health</p> <p>UK Health Security Agency</p> <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 plans which we consider are satisfactory, showing the extent of the site of the facility. The plans are 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.
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, 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>

Aspect considered	Decision
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 are as follows:</p> <ul style="list-style-type: none"> • There are 6 poultry sheds for free range layers. Poultry house 3 is a flat deck perchery with a deep litter system. Poultry houses 4 to 8 are aviary system with litter belt removal. (Poultry sheds 1 and 2 have been decommissioned and removed from the permit with this variation). • The two new poultry houses (7 and 8) will have a litter drying system to reduce the moisture content of litter prior to being stored. Heat for drying the system will be provided by a new biomass boiler which is fuelled by biomass chips or pellets comprising virgin timber, straw, miscanthus; or a combination of these. • In addition the two new poultry houses (7 and 8) have heat exchanger units fitted. These have an internal tank for the condensate which are emptied along with the dirty water tanks at the end of the cycle. • Poultry houses 3 has to 6 are naturally ventilated with ridge outlets. Poultry houses 7 and 8 are ventilated via high velocity roof fans. Poultry houses 3 to 6 also have gable end fans to be used infrequently in hot weather. • Birds will be housed at point of lay and depopulated at the end of the birds laying cycle, this will be done on an all-in, all-out basis. • Feed is delivered from the Operators mobile mill (which is already permitted) and blown into bulk feed bins situation adjacent to the poultry houses. • Roof water from all poultry houses goes to french drains (acting as soakaways) running adjacent to the poultry houses. These drains overflow to one of two unlined attenuation ponds (which act as a soakaways). These attenuation ponds overflow to ditches surrounding the Installation, which ultimately drains to the River Skerne. • 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. • Manure belts are operated twice a weekly removing litter from the houses (except house 3 which is a flat deck system). The litter will be stored in one

Aspect considered	Decision
	<p>of the two litter stores (each with the capacity of 1000 tonnes) to await spreading on Operator controlled land.</p> <ul style="list-style-type: none"> • Wash water is conveyed to dirty water tanks for temporary storage before being spread on Operator controlled land. • There will be one stand-by generator with an integrated diesel storage tank on site. • Mortalities are removed daily and stored in secure containers for removal under the Fallen Stock Scheme. <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the Sector Guidance Note EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.</p>
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p>
Noise management	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.</p> <p>We consider that the noise management plan is satisfactory.</p>
Permit conditions	
Updating permit conditions during consolidation	<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>
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>Biomass chips or pellets comprising virgin timber, straw, miscanthus; or a combination of these have been added to the permit for the biomass boiler.</p>
Emission limits	<p>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 table S3.3 of the permit.</p>
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 21/02/2017.</p>
Reporting	<p>We have specified reporting in the permit.</p> <p>We made these decisions in order to ensure compliance with the Intensive Farming sector BAT conclusions document dated 21/02/2017.</p>
Operator competence	
Management system	<p>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.</p>

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.

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 from
Durham County Council Environmental Health (response received 08/08/2023)
Brief summary of issues raised
There is no history of alleged statutory nuisance complaints against the site, and as such there is no history of enforcement action. There does seem to be a discrepancy with the planning permission applied for in 2021.
Summary of actions taken or show how this has been covered
The Environment Agency does not need to obtain confirmation of planning permission for EPR permit applications, however we have notified the Applicant about this discrepancy as it is their responsibility.

Response received from
Health and Safety Executive
Brief summary of issues raised
No response received
Summary of actions taken or show how this has been covered
No further action

Response received from
UK Health Security Agency (Response received 23/08/2023)
Brief summary of issues raised
The main emissions of potential public health significance are emissions to air of bioaerosols, dust including particulate matter and ammonia. Based on the submitted documentation, we are reassured that the Operator has submitted documentation detailing an odour management plan and bioaerosol risk assessment, and mitigation measures to control and minimise the impact of odours and bioaerosols from operations on site. It is assumed by UKHSA that the installation will comply in all respects with requirements of the permit, including the application of Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health.
Summary of actions taken or show how this has been covered
The Applicant has supplied a satisfactory odour management plan and bioaerosol management plan. The Applicant has confirmed they will comply with BAT and there is no reason to suspect they will not comply with their permit.

Response received from
Director of Public Health
Brief summary of issues raised
No response received
Summary of actions taken or show how this has been covered
No further action