

# Permitting decisions

## Bespoke permit

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We have decided to grant the permit for 75,000 broilers operated by Anyalla Chicks (UK) Broilers Limited.

The permit number is EPR/PP3735JK.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

This decision document provides a record of the decision making process. It:

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

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit 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 installation farming permits issued after the 21<sup>st</sup> 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.

### New BAT conclusions review

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

We have sent out a request for information requiring the Applicant to confirm that the new installation complies in full with all the BAT conclusion measures.

The Applicant has confirmed their compliance with all BAT conditions for the new installations, in their email reference 'RFI response' and dated 26/02/18.

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	<p>The Applicant has confirmed it will demonstrate it 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.</p> <p>This confirmation was in response to the Request for Further Information received 26/02/18, which has been referenced in Table S1.2 Operating Techniques of the Permit.</p> <p>Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT</p>
BAT 4 Nutritional management Phosphorous excretion	<p>The Applicant has confirmed it will demonstrate it achieves levels of Phosphorous excretion below the required BAT-AEL of 0.25 kg P<sub>2</sub>O<sub>5</sub> animal place/year by an estimation using manure analysis for total Phosphorous content.</p> <p>This confirmation was in response to the request for further information, received 26/02/18, which has been referenced in Table S1.2 Operating techniques of the Permit.</p> <p>Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.</p>

BAT measure	Applicant compliance measure
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions  The operator will estimate annually by using manure analysis for total nitrogen and phosphorous content as confirmed in their revised document Technical Standards, received 26/02/2018.
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.  The operator will estimate annually by using manure analysis for ammonia content as confirmed in their revised document Technical Standards, received 26/02/2018.
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"> <li>• The staff will perform a daily boundary walk to check the surrounding area for high levels of odour, as well as this checks will be performed on the surrounding area by persons who do not regularly work on the farm.</li> <li>• Visual (and nasal) inspections of potentially odorous activities will be carried out.</li> </ul>
BAT 27 Monitoring of emissions and process parameters  -Dust emissions	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.  The Applicant 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.  This confirmation was in response to the request for further information, received 26/02/18, which has been referenced in Table S1.2 Operating techniques of the Permit.
BAT 32 Ammonia emissions from poultry houses  - Broilers	The BAT-AEL to be complied with is 0.01 – 0.08 kg NH <sub>3</sub> /animal place/year.  The Applicant will meet this as the emission factor for broilers is 0.034 kg NH <sub>3</sub> /animal place/year.  The Installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL.

### **More detailed assessment of specific BAT measures**

#### **Ammonia emission controls**

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT.

#### **Ammonia emission controls – BAT conclusion 32**

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

'New plant' is defined as plant first permitted at the site of the farm following the publication of the BAT conclusions.

All new bespoke applications issued after the 21<sup>st</sup> February, including those where there is a mixture of old and new housing, will now need to meet the BAT-AEL.

## Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February and came into force on 27 February 2013. These Regulations transpose the requirements of the 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 Thoresby Bridge Farm (dated 25/01/18) 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](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:

- **Manufacture and selection of feed:**
  - milling and mixing of feed, poor quality and odorous ingredients.
  - Feeds unbalanced in nutrients (leading to increased excretion and litter moisture and emissions of ammonia and other odours to air).
- **Feed deliver and storage:**
  - spillage of feed during delivery and storage
  - creation of dust during delivery.
- **Ventilation techniques:**
  - inadequate air movements within the buildings can lead to high humidity and subsequently high moisture levels within the litter.
  - Inadequate control of inlet and ridge vents lead to poor dispersal of potential odours.
  - Inadequate control of gable end fans leading to extraction of potential odours.
- **Litter selection, conditions and management:**
  - Incorrect choice of bedding material (litter).
  - Insufficient bedding material to absorb normal excreta levels.
  - Odours arising from wet litter and poor management.
  - Spillage of surplus water from drinker systems.
  - Disease outbreaks leading to poorly conditioned birds- excessive droppings leading to higher moisture content within the litter.
  - Overcrowding of available bird space.
  - Poor ventilation design and techniques leading to poor dispersion of air and odour.
  - Poor building design and quality leading to residual build-up of damp, materials rot, trapped organic materials and decay resulting in odours.
  - Stock inspections can disturb livestock and lead to unnecessary odour and dust generation.
- **Carcass storage and disposal:**
  - carcasses not removed to designated storage.
  - Inadequate storage of carcasses on site.
  - Carcasses stored on site for prolonged period of time.
  - Carcasses exposed for excessive times at collection.
  - Collection vehicles not suitably covered leading to excessive odour release during transport off site.
- **Fluctuations in stocking densities depending on growth curves- particularly following any increase from initial standards:**
  - Overcrowding of available bird space leading to poor air exchange due to inefficient dispersion.
  - Pressure on saturation point of litter resulting in greater levels of moisture.
  - Increased levels in odour concentration and release than that of a lower growth curve and stocking density.
- **Management of drinking water systems:**
  - Spillages of surplus water from drinker systems.
  - Poor quality drinking water.
  - Poor cleanliness of drinking water systems.
- **Destocking of houses-thinning and final depletion:**
  - Higher levels of odour release through increased bird activity.

- Turning over any damp litter during machine access and in-house movements generating odours.
- Prolonged depletion schedules and numbers being removed at any one time increases opportunity for odour release.
- External areas becoming heavily contaminated during depletion.
- **Clean out (removal of litter from houses and removal from site) Wash down and disinfection:**
  - Creation of dust during clean-down.
  - Heaping up and removal of large quantities of dirty litter with potentially high levels of odorous material.
  - Loading lorries/trailers with dirty water.
  - Uses of odorous chemicals/products to disinfect buildings following wash down.
- **Dirty water management:**
  - Standing or open stored dirty water during the production cycle or clean-out leading to odours.
  - Removal of dirty water from storage tanks producing odours.

### Odour Management Plan Review

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

There are several sensitive receptors within 400m of the site boundary. The operator has identified these receptors.

The closest property to the site boundary is Ings Farm which is located ~34m north west of the installation boundary and ~53m from the nearest poultry house. Other close receptors to the north west of the installation include Rose Cottage (~108m from boundary) Ivy Cottage (~120m from boundary) and Bridge Farm (~154m from boundary). 'Ings Cottage' is located to the north east of the installation boundary (~160m from boundary).

The operator is required to manage activities at the installation in accordance with condition 3.3.1 of the permit and it's OMP (version received 26/02/18) reference 'Odour Management Plan'.

The OMP includes odour control measures, in particular, procedural controls such as manufacture and selection of compound foods, feed delivery and storage, ventilation systems, litter selection, conditions and management, carcass disposal and storage, fluctuations in stocking density, management of drinking water systems, destocking of livestock (thinning and final depletion)house clean out (litter removal), used litter and dirty water management.

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.

The OMP also provides a suitable procedure in the event of complaints in relation to odour. The OMP is required to be reviewed at least every 4 years, however the operator has confirmed that it will be reviewed if a complaint is received, whichever is sooner.

The general wind direction is predominantly from the south west. This means that the receptors that could potentially be impacted the most would be to the north east of the installation.

The Environment Agency has reviewed the OMP and consider 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.

We have included our standard odour condition 3.3.1 in the permit, which required that the 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 appropriate measures, including, but not limited to, those specified in any approved OMP (which is captured through condition 2.3 and Table S1.2 of the permit), to prevent or where that is not practicable, to minimise odour.

The operator must operate the installation in line with the operating techniques set out in the application supporting documents and the OMP. Once the operation of the installation commences, there is a requirement to review and record (as soon as practicable after a complaint) whether changes to the OMP should be made and make any appropriate changes to the OMP identified in the review.

Whilst there is potential for odour pollution from the installation, the overall risk can be minimised by complying with the permit conditions, careful management and compliance with the OMP and reviewing the OMP when required. We are satisfied that operations carried out on the Installation will minimise the risk of odour pollution.

## 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 stated 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 in 'Noise Management Plan Review' 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:

- **Vehicles travelling to and from the site:**
  - Vehicles travelling to and from site will generate road and engine noise and noise from cab doors at the entrance of the site.
- **Vehicle activity on site:- Bird, feed, bedding and fuel delivery vehicles, feed movements on site, bird movements on site, general waste and ABP collections, general deliveries, staff vehicles:**
  - Vehicle movements on site will generate road and engine noise within the site, reversing warning signal noise, forklift activity from loading and unloading vehicles and noise associated with specialist transfer equipment (i.e. LPG gas transfer, feed blowing).
  - Staff vehicles at start and finish of day.
- **Stocking of poultry houses**
  - Setting up and bedding houses prior to bird arrival.
  - Unloading off day-old chicks into poultry houses
  - Unloading of 'grower birds' into free-range poly tunnels.
- **Destocking of poultry houses**
  - Catching and loading of birds at de-population.
  - Catching and loading of birds to move within the site.

- **Feed transfers from lorry to storage silos**
  - Donkey engines and power take off systems/blowers will generate noise
  - Noise from coupling and uncoupling to silo feed tubes.
- **Feed transfers from silo to feeders inside houses**
  - Noise from mechanical feed augers and blowers propelling feed to in-house feeders.
- **Powered ventilation fans**
  - Roof ridge high-velocity fans operated automatically via the environmental control system (single new house at the southern end of the installation).
  - Gable end 'emergency' fans manually operated.
- **Operation of side and roof ridge vents**
  - Automatic operation of side and roof ridge air inlets
- **Personnel**
  - Staff members playing music
  - Shouting and calling on site between staff members
  - Contractors working on exterior features of buildings
- **Bird noise**
  - Natural noise/calls from housed birds
- **Clean out (Removal of litter from houses & removal from site) Wash down and disinfection**
  - Operation of mechanical equipment (bobcats etc.) to scrape, lift and tip litter)
  - Reverse warning signals on handling equipment
  - Operation of blowers to dislodge dust
  - Operation of power washers and disinfectant spray equipment (engine and pump noises)
- **Manual washing and cleaning of equipment**
  - Noise associated with handling and movement of feeder and drinker equipment
  - Use of power wash machines for equipment washing.

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.

#### Noise Management Plan Review

Sensitive receptors have been listed under 'Odour' section.

The sensitive receptors that have been considered under odour and noise do 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) as part of the application supporting documentation (reference 'Noise Management Plan' (Revised and received 26/02/18)').

The NMP also provides a suitable procedure in the event of complaints in relation to noise. The NMP is required to be reviewed at least every 4 years, however the operator has confirmed that it will be reviewed if a complaint is received, whichever is sooner.



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, feed delivery and transfer from lorry to storage, bird movements on site, waste collections, general deliveries and staff vehicles, stocking and destocking of poultry houses, operation of ventilation systems, personnel, bird noise, clean out and manual washing and cleaning of equipment.

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 Installation, 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 Bio aerosols**

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 1 sensitive receptors within 100m of the Installation boundary, the north north west of the installation boundary.

Guidance on our website concludes that applicants need to produce and submit a dust and bio aerosol 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](http://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 bio aerosol 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:

- **Manufacture and selection of compound foods**
  - No onsite milling or mixing
  - Feed specifications prepared by the feed compounder's nutrition specialist
  - The nutritionist ensures that protein and phosphorous content is reduced as the rations change thought out the flock cycle

- Feed rations are moulded into pellets when possible for size and age of birds
- The level of fines (dust) is carefully managed at the mill and monitored at the farm during use
- Feed only supplied by UFAS accredited feed mill so that only approved raw materials are used
- A feed sample for every load of feed delivered to the site is left and documented for both quality assessment and traceability. Samples are kept on site for a minimum of 3 months
- **Feed delivery and storage**
  - Feed delivery systems are sealed to minimise atmospheric dust
  - Dust catchment socks and covers will be in place on all silo pipes and exhausts to trap feed spillages and dust
  - Any and all spillages are cleaned up immediately. For major spillages over 500kg, the feed mill would be notified who will send a vehicle out to clear up the feed and move to another silo. This process is carried out within a few hours if the food can still be used
  - For major spills of over 500kg where food is not useable the spillage will be cleared up into skips and removed from site for disposal by appointed waste contractor within 24 hours of incident
  - For major spills of less than 500kg feed will be cleared up using bags and placed in the onsite general waste container for disposal
  - Annual condition checks of silos are carried out and documented as detailed in the EMS
- **Feeding of birds**
  - Maintain feed system in good working order and correct any faults immediately
  - Ensure correct rations are in use
  - Regular inspection of flocks and equipment for early detection of problems
- **Bird type, sex, numbers and growing cycle**
  - Manage the welfare and health of birds in accordance with AFS Assured Chicken Standards. This includes the requirements for environmental enrichment and maximum stocking densities. Enriched and well managed houses will lead to calmer and healthier birds.
  - Broiler production only so birds do not reach ages to moult
  - Work within growing cycles (34 day growing plan plus up to 14 day turnaround)
- **Ventilation techniques**
  - The ventilation systems are regularly adjusted either automatically or manually to aid optimum internal environmental conditions as explained in the EMS
  - The ventilation systems are designed to efficiently control the exchange of air from inside the building with that of clean air outside.
  - Maintenance schedules are in place and are carried out in line with manufacturer's recommendation and guidance as stated in the EMS. This is to minimise the risk of any breakdown during flock cycle
  - Where fitted – high velocity ridge mounted fans allow the air to be exhausted at a greater rate (up to 14 m/s) which allows for a better dispersion higher up in the natural air streams
  - Roof canopies above natural air flow ridge vents have a similar effect to a directional buffer in forcing escaping air downwards allowing dust to be trapped in the canopy and then removed at clean down
  - Where auxiliary gable end fans are present- these are only used in times of warm weather. The fans are low velocity and principally used to increase air inflow to the house rather than to extract
  - PPM regimes are followed to ensure all fans are maintained in correct working order.
- **Litter Conditions**
  - Dust extracted virgin wood shavings are used as initial bedding and top up/ replacement. Products are quality checked at the production plant. And routinely audited by internal/external bodies.

- The initial bedding is supplied wrapped in plastic wrappings (bales) which are transported into the houses before being opened for manual spreading
- Top up bedding is also from wrapped bales, which are transported into the houses before being spread manually
- Bedding is carefully distributed with hand implements and not thrown or mechanically blown
- Litter is regularly topped-up to prevent build-up of dry, friable litter
- **Dust build up around extraction fans/ gravelled/ concrete areas**
  - Dust build up is to be routinely swept up where left on concrete/ hardstanding's. where dust falls onto loose surfaces/ gravelled areas, the surface it to be routinely raked over to ensure blinding of areas does not occur
  - If heavy deposits accumulate over time the area of gravel is to be removed and replenished as required
- **Destocking of livestock – thinning/ final depletion**
  - Ventilation controls are used to control the release of dust while still maintain optimum temperature control for the birds and safe working conditions for the staff throughout the depletion process
  - Machinery movements are to be kept to a minimum to help reduce bird excitement and the breaking up of litter. This minimises airborne particles, allowing for a consistent, even dispersal of air/ dust through the ventilation systems.
- **Clean out (litter removal)**
  - The clean out process usually happens within 24 hours of the birds being depleted, so that litter has not had time to dry out excessively
  - All internal areas and beneath canopies are blown down using high pressure air lances before the litter is removed so that any areas of trapped dust are minimised. Where practically possible, gable fans are blown inwards to the buildings and ventilation flaps closed to prevent dust dispersing
  - Litter is first scraped into a large heap running the length of the centre of the buildings, this minimises loading time and help make the process more efficient thought-out. As this process carries a lot of hazards for operators working within the buildings, ventilation is required but it kept to a minimum required for staff health and safety
  - Once all the litter is removed and the floors mechanically swept the ventilation system is closed down
- **Wash-down/ disinfection**
  - A process known as pre-soaking is carried out to the dry buildings before high pressure washing commences. In this methodology a low-pressure rinse is carried out to all internal areas of the building allowing any dust deposits to be dampened and allowing heavy debris to “pre-soak”. This helps generate a cooler environment under which to apply detergents, allowing for longer detergent “cling time”. The process improves the breakdown of any fat's and heavy staining, which in turn reduces the amount of aerosol effect created from using high pressure.
  - As disinfectants can be hazardous, all buildings are sealed as best as practically possible before disinfection is carried out. Fan assisted applicators are routinely used to ensure that coverage to all internal areas is maximised. Products are only applied to a point of run to avoid excessive use. Once the buildings are disinfected they are left closed up, allowing any mist, dust or vapours to settle / dry off before ventilation is opened to assist drying of larger areas.
  - Only DEFRA approved disinfectant and detergents are used on site and are applied by trained personnel

### Conclusion

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

### **Ammonia**

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

There is 1 Special Area of Conservation (SAC), 2 Special Protection Areas (SPA), and 1 Ramsar site located within 10 kilometres of the installation. There are 2 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also 5 Local Wildlife Sites (LWS) within 2 km of the installation.

### **Ammonia assessment – SAC/SPA/Ramsar**

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

- If the process contribution (PC) is below 4% of the relevant critical level (CL<sub>e</sub>) or critical load (CL<sub>o</sub>) 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 10 km of the SAC/SPA/Ramsar.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Thoresby Bridge Farm will only have a potential impact on the SAC/SPA/Ramsar sites with a precautionary critical level of 1µg/m<sup>3</sup> if they are within 3115 metres of the emission source.

Beyond XXm the PC is less than 0.04µg/m<sup>3</sup> (i.e. less than 4% of the precautionary 1µg/m<sup>3</sup> critical level) and therefore beyond this distance the PC is insignificant. In this case all SAC/SPA/Ramsars are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m<sup>3</sup> is used, and the process contribution is assessed to be less than 4% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the 1µg/m<sup>3</sup> level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely significant effect

**Table 1 – SAC/SPA/Ramsar Assessment**

<b>Name of SAC/SPA/Ramsar</b>	<b>Distance from site (m)</b>
Humber Estuary (SAC)	3745
Humber Estuary (SPA)	3745
Humber Estuary (Ramsar)	3745

### **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 (CL<sub>e</sub>) or critical load (CL<sub>o</sub>) 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 4.5 has indicated that emissions from Thoresby Bridge Farm will only have a potential impact on SSSI sites with a precautionary critical level of 1µg/m<sup>3</sup> if they are within 1301 metres of the emission source.

Beyond 1301m the PC is less than 0.2µg/m<sup>3</sup> (i.e. less than 20% of the precautionary 1µg/m<sup>3</sup> critical level) and therefore beyond this distance the PC is insignificant. In this case all SSSIs are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m<sup>3</sup> 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<sup>3</sup> 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 2 – SSSI Assessment**

<b>Name of SSSI</b>	<b>Distance from site (m)</b>
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Humber Estuary	3745
Tetney Blow Wells	1732

### **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 4.5 has indicated that emissions from Thoresby Bridge Farm will only have a potential impact on the LWS sites with a precautionary critical level of 1µg/m<sup>3</sup> if they are within 543 metres of the emission source.

Beyond 543m the PC is less than 1µg/m<sup>3</sup> and therefore beyond this distance the PC is insignificant. In this case all LWSs are beyond this distance (see table below) and therefore screen out of any further assessment.

**Table X – LWS Assessment**

<b>Name of SAC/SPA/Ramsar</b>	<b>Distance from site (m)</b>
Fulstow Pit	1809
Gloucester House Ponds	2037
Tetney Flood	748
New Delights	1225

## **Decision checklist**

<b>Aspect considered</b>	<b>Decision</b>
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.  The decision was taken in accordance with our guidance on confidentiality.
<b>Consultation</b>	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.  The application was publicised on the GOV.UK website.  We consulted the following organisations: <ul style="list-style-type: none"> <li>• Public Health England</li> <li>• Environmental Health East Lindsey</li> <li>• Health and Safety Executive</li> <li>• Local Authority – Lincoln County Council</li> </ul> The comments and our responses are summarised in the <a href="#">consultation section</a> .

Aspect considered	Decision
<b>Operator</b>	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
<b>The facility</b>	
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', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits.</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>
<b>The site</b>	
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.
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>See 'Ammonia' section in Decision Document for further information.</p>
<b>Environmental risk assessment</b>	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.</p>
<b>Operating techniques</b>	
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</p>

Aspect considered	Decision
	<p>the environmental permit.</p> <p>The operating techniques are as follows:</p> <ul style="list-style-type: none"> <li>• Poultry houses 1-5 are naturally ventilated by roof vents with side inlets. House 6 is ventilated by roof fans with an emission point higher than 5.5 metres above ground level and an efflux speed greater than 14 metres per second. Houses 4, 5 and 6 also have gable end fans, although these are operated infrequently to maintain temperature, typically in the summer months</li> <li>• Litter is exported off site and is spread either on land owned by third parties or to electricity generating stations for burning.</li> <li>• All roof and yard water from houses 1 &amp;2 is diverted to underground tanks for disposal off site</li> <li>• Roof water from houses 3-6 is discharges to surface water via d via French drains along the houses.</li> <li>• Sealed and collision-protected feed storage bins</li> <li>• Carcasses are collected daily and stored in a secure container on site prior to removal off site by approved contractors</li> </ul>
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>
<b>Permit conditions</b>	
Emission limits	<p>We have decided that emission limits are required in the permit. BAT AEL's have been added in line with the Intensive Farming sector BAT conclusions document dated 21/02/17. These limits are included in permit table S3.4.</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 21/02/17.</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>
<b>Operator competence</b>	
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> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Relevant convictions	<p>The Case Management System and National Enforcement Database have been</p>

Aspect considered	Decision
	checked to ensure that all relevant convictions have been declared.  No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
<b>Growth Duty</b>	
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 vary 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>

## Consultation

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

### Responses from organisations listed in the consultation section



<b>Response received from</b>
Health and Safety Executive (received 26/02/2018)
<b>Brief summary of issues raised</b>
No issues were raised ('No comments')
<b>Summary of actions taken or show how this has been covered</b>
N/A

<b>Response received from</b>
PHE (Nottingham) (received 06/03/18)
<b>Brief summary of issues raised</b>
There is one residential dwelling within 100m of the installation, and three others within 200m. The application also indicates that there is a man-made fishing lake that runs along the south-western boundary of the installation. The Environment agency should ensure that mitigation measures in the applicant dust and bioaerosol management plan prevent off-site impacts on nearby receptors, including users of the lake, who are not addressed in the applicant's risk assessment or management plan.
<b>Summary of actions taken or show how this has been covered</b>
We have requested and the operator has submitted a revised Dust Management Plan (received 20/03/2018) which takes the fishing lake into account. The plan demonstrates that any risk to the fishing lake has been minimised.

<b>Response received from</b>
Director of Public Health (received 28/03/18)
<b>Brief summary of issues raised</b>
The Director of Public Health agrees with PHE's concerns that there are several dwellings and a recreational fishing lake within close proximity to the site. The operator should ensure that mitigation measures are in place to prevent the release of Bioaerosols, dust and ammonia. Provided that the operator takes all appropriate measures to prevent or control pollution and nuisance in accordance with the relevant sector guidance and industry best practice, no significant adverse effects on the health and wellbeing of the local population can be foreseen.
<b>Summary of actions taken or show how this has been covered</b>
We have requested and the operator has submitted a revised Dust Management Plan (received 20/03/2018) which takes the fishing lake into account. The plan demonstrates that any risk to the fishing lake has been minimised.