

Permitting decisions

Variation

We have decided to grant the variation for Bewholme Farm Poultry Unit operated by E C Drummond (Agriculture) Ltd.

The variation number is EPR/UP3133YC/V002.

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:

- Description of the changes introduced by the variation
- 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.

Description of the changes introduced by the Variation

This is a Substantial Variation.

The variation authorises the following change:

To increase the permitted number of broilers at Bewholme Farm Poultry Unit to 176,000 broiler places from 159,621 places, installing one biomass boiler using Grade A waste wood with a capacity of 50kg or more per hour (Where the boiler capacity is >50kg/hr and meets the Part B activity criteria it should be added to the permit as a Part B activity. For the addition of a part B activity, the application should be determined as a substantial variation), and the installation of one APHA approved carcass incinerator with a capacity of <50kg/hr. There has been no extension to the installation boundary as a result of this variation.

Changes to the original permit as a result of consolidation

As part of this variation and consolidation, several changes have been made to the permit, including in particular the following:

- Amendment of table S1.1 Activities.
- Amendment of table S1.2 Operating techniques.
- Amendment of table S1.3 Improvement programme requirements.
- Removal of table S4.1 'Point source emissions to air' and replaced and amended with table S3.1 'point source emissions to air'.
- Inclusion of table S3.2 'Point source emissions to water (other than sewer) and land'.

Key issues of the decision

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 Bewholme Farm Poultry Unit (dated 19/01/07) (together with the improvement conditions which have now been completed and incorporated into the original permit) 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.**

Odour

There are several sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). Therefore an Odour Management Plan (OMP) is required under our guidance and has been provided in the past and is captured within the operating techniques table.

The operator has not provided an odour management plan as part of the application supporting documentation but has provided a risk assessment where the overall risk from the site's activities is deemed to be not significant. There is no perceived increase in odour risk from the changes proposed.

The residences occupied by people associated with the farm are not considered as a sensitive receptors, for odour, as it is unlikely that odour will be perceived as a nuisance. There are other properties and businesses within 400m – There are no history of odour complaints from this site. Furthermore, the principal change of this variation is to add a biomass boiler burning Grade A waste wood, which is inherently not considered as an activity likely to lead to risk of odour pollution beyond the installation boundary. There is only a small increase in permitted bird numbers to 176,000 from 159,621. There is no expansion in the Installation boundary and therefore operations are not moving closer to nearby receptors.

There is potential for odour from the installation, beyond the installation boundary. However, the risk of odour beyond the installation boundary is considered unlikely to cause a nuisance.

Noise

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour section. Therefore a Noise Management Plan (OMP) is required under our guidance and has been provided in the past and is captured within the operating techniques table. The operator has not provided a noise management plan (NMP) as part of the application supporting documentation but has provided a risk assessment where the overall risk from the site's activities is deemed to be not significant. There is no perceived increase in noise risk from the changes proposed.

As for odour, the residences occupied by people associated with the farm are not considered as a sensitive receptors as it is unlikely that noise will be perceived as a nuisance. There are other properties and businesses within 400m. There are no history of noise complaints from this site. There is no expansion in the Installation boundary and therefore operations are not moving closer to nearby receptors.

There is the potential for noise from the installation, beyond the installation boundary. However, the risk of noise beyond the installation boundary is considered unlikely to cause a 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 are 3 sensitive receptors within 100m of the Installation boundary, the nearest sensitive receptor (the nearest point of their assumed property boundary) is within 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.

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 and a dust management plan.

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 (for a comprehensive list of measures, please see the relevant documents, referenced within the permit):

- Feed delivered in sealed systems;
- Use of pelleted feed with oil coating to prevent pellet degradation;
- Dust socks fitted to silo exhaust pipes;
- Closed system delivery of feed from silo to poultry house;
- Bedding layer will be either green sawdust which has high moisture content minimising dust or dust extracted shavings, not blown into poultry houses;
- Computer controlled environment keeping humidity between 55 and 60% minimising dust;
- Use of side extraction fans;

- Bird catching under very low light levels to prevent bird stress and minimising dust;
- Litter removed carefully during cleanout.

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

Biomass boiler

The applicant is varying their permit to include 1 biomass boilers with a net rated thermal input of 1.022 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 farms where:

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;
- the aggregate boiler net rated thermal input is:
 - A. less than 0.5MWth, or;
 - B. less than 1MWth where the stack height is greater than 1 metre above the roof level of adjacent buildings including building housing boiler(s) if relevant (where there are no adjacent buildings, the stack height must be a minimum of 3 metres above ground), and there are:
 - no Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest within 500 metres of the emission point(s);
 - no National Nature Reserves, Local Nature Reserves, ancient woodlands or local wildlife sites within 100 metres of the emission point(s), or;
 - C. less than 2MWth where, in addition to the above criteria for less than 1MWth boilers, there are:
 - no sensitive receptors within 150 metres of the emission point(s).

This is in line with the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms", an assessment has been undertaken to consider the proposed addition of the biomass boiler(s).

The Environment Agency's risk assessment has shown that the biomass boiler meet the requirements of criteria C 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 5MW, no habitats assessment is required due to the size of combustion plant". Therefore this proposal is considered acceptable and no further assessment is required.

Grade A Wood Burning

The operator has applied to use grade A recycled waste wood as fuel for 1 biomass boiler with a net rated thermal input of 1.022 MW. Where virgin and waste wood are mixed the fuel is all considered a waste.

The biomass boilers are to be fed by a mixture of Grade A wood and virgin wood.

Grade A wood definition:

"grade A waste wood" means visibly 'clean' recycled waste wood mainly originating from packaging waste, pallets, packing cases and process off-cuts from the manufacture of untreated wood products. As defined in BSI PAS 111: 2012.

The total capacity of the installation biomass boiler using Grade A wood is 272 kgs/hour.

As the activity does not meet the criteria of a U4 waste exemption it will fall under section 5.1 B) (a) (v) of the Environmental Permitting Regulations 'The incineration in a small waste incineration plant with an aggregated capacity of 50kgs or more per hour of the following waste – wood waste with the exception of waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings'.

A site specific description of waste source, and procedure have been reviewed and accepted as satisfactory to ensure that only grade A waste wood will be accepted.

The operator will only be permitted to accept this waste type. Table S2.2 of the permit includes relevant waste wood and descriptions. We are satisfied that the waste wood is from a manufacturing source and that it will not be contaminated.

Ammonia

There is one Special Protection Areas (SPA) sites located within 10 kilometres of the installation. There is one Site of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also two Local Wildlife Site(s) (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_e) or critical load (CL_o) 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 SPA.

Screening using the ammonia screening tool version 4.5 has determined that the PC on the SPA for ammonia emissions and nitrogen deposition/acid deposition from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. See results below.

Table 1 – Ammonia emissions

Site	Critical level ammonia µg/m ³	Predicted PC µg/m ³	PC % of Critical level
Hornsea Mere SPA	3*	0.072	2.4

*APIS states that the appropriate CL_e for this site is 3µg/m³.

Table 2 – Nitrogen deposition

Site	Critical load kg N/ha/yr. [1]	Predicted PC kg N/ha/yr.	PC % of critical load
Hornsea Mere SPA	10	0.374	3.7

Note [1] Critical load values taken from Air Pollution Information System (APIS) website (www.apis.ac.uk) – 01/06/2017

Table 3 – Acid deposition

Site	Critical load keq/ha/yr. [1]	Predicted PC keq/ha/yr.	PC % of critical load
Hornsea Mere SPA	N/A	N/A	N/A

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 01/06/2017

No further assessment is necessary.

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_e) or critical load (CL_o) 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 Bewholme Farm Poultry Unit will only have a potential impact on the SSSI site with a precautionary critical level of 1µg/m³ if they are within 2498 metres of the emission source.

Beyond 2498m the PC is less than 0.2µg/m³ (i.e. less than 20% of the precautionary 1µg/m³ critical level) and therefore beyond this distance the PC is insignificant. In this case the SSSI is beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m³ is used, and the process contribution is assessed to be less than 20% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the 1µg/m³ 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 4 – SSSI Assessment

Name of SSSI	Distance from site (m)
Hornsea Mere	4348

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 (CL_e) or critical load (CL_o) then the farm can be permitted with no further assessment.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Bewholme Farm Poultry Unit will only have a potential impact on the LWS sites with a precautionary critical level of 1µg/m³ if they are within 1043 metres of the emission source.

Beyond 1043m the PC is less than 1µg/m³ and therefore beyond this distance the PC is insignificant. In this case the LWS listed in Table 5 is beyond this distance and therefore screen out of any further assessment.

Table 5 – LWS Assessment

Name of LWS	Distance from site (m)
Catwick and Brandesburton Pits	2091

Screening using the ammonia screening tool version 4.5 has determined that the PC on the 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 6 - Ammonia emissions

Site	Critical level ammonia µg/m³	Predicted PC µg/m³	PC % of critical level
Nunkeeling Lane	3*	2.729	91

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

Table 7 – Nitrogen deposition

Site	Critical load kg N/ha/yr. [1]	Predicted PC kg N/ha/yr.	PC % of critical load
Nunkeeling Lane	10	14.175	141.8*

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 01/06/2017

* PC as a % of Clo for N deposition is greater than Z% - detailed modelling would normally be required in this situation. However, modelling was carried out in 2012 (using a worst-case scenario of 61493 turkeys) and this LWS was screened out. Our Air Quality Modelling & Assessment Unit reviewed the report again to determine whether the information was still valid. The conclusion was as follows: *We have rechecked the emission rates, and extracted the Bewholme only PC's from the old audit. We have then ratioed the old PC's based on the original emission rates used (turkeys only, female emission rate, 100% occupation) and the new emission rates calculated (turkeys and broilers, female turkey emission rate, reduced occupation). The new net emission rates are less than the old ones. The calculated PC's are less than 100% of the relevant Environmental Standard (ES). For this reason, we can be confident that the new variation would not result in an exceedance of the ES's at Nunkeeling LWS, provided they operate at the stated occupation rates and that the female turkey emission rate is appropriate.*

The modelling that was carried out in 2012 can therefore be viewed as a 'worst-case' assessment (turkeys only, emission rate of 0.23, 100% occupation).

Table 8 – Acid deposition

Site	Critical load keq/ha/yr. [1]	Predicted PC keq/ha/yr.	PC % of critical load
Nunkeeling Lane	2.68	1.013	37.8

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 01/06/2017

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	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: • Public Health England (PHE) • Health and Safety Executive (HSE) • Director of Public Health, East Riding of Yorkshire Council • Local Environmental Health Department, East Riding of Yorkshire Council The comments and our responses are summarised in the consultation section.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', 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. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.

Aspect considered	Decision
	We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. See Key Issues section. We have not consulted Natural England on the application but have sent a Stage 1 Habitats Regulations Assessment to Natural England for information only. The decision was taken in accordance with our guidance.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.
Environmental risk	We have carried out a risk assessment on behalf of the operator. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant. See Key Issues section.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques include the following: • Poultry houses 1-4 are ventilated by side fan outlets. • Litter is exported off site and is spread on land owned by third parties • Dirty wash water is exported off site and spread on third party owned land • Carcasses are collected daily and stored in a secure container. • Carcasses are disposed of using an APHA approved carcass incinerator with a capacity of <50kg/hr. • The fuel to be used for the biomass boilers is derived from Grade A waste wood or virgin timber. • The biomass boiler appliance and its installation meets the technical criteria to be eligible for the Renewable Heat Incentive. • The stacks are 1m or more higher than the apex of the adjacent buildings. • Roof water and water draining from yard (excluding all times yards are contaminated e.g. catching, mucking out or poultry house wash out periods) is directed to onsite soakaways to east of poultry houses 2 and 4 and west of poultry houses 1 and 3. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Aspect considered	Decision
Permit conditions	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).
Raw materials	We have specified limits and controls on the use of raw materials and fuels.
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. We are satisfied that the operator can accept these wastes for the following reasons: • they are suitable for the proposed activities • the proposed infrastructure is appropriate; and • the environmental risk assessment is acceptable.
Improvement programme	Some of the existing improvement programmes have been completed and the permit has been updated to reflect this. However, it has not been possible to determine if IC1, IC2 and IC3 have previously been completed, Therefore, revised dates (3 months from permit issue) have been agreed and inserted into the permit.
Emission limits	No emission limits have been added, amended or deleted as a result of this variation.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: “The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.” We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

Aspect considered	Decision
	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
Public Health England (PHE) – Received 26 July 2017
Brief summary of issues raised
The main emissions of potential public health significance are emissions to air of bio aerosols, dust including particulate matter and ammonia. The applicant includes a qualitative risk assessment that considers dust and ammonia and outlines related mitigation measures. Bio aerosols are not addressed in detail. <u>Bio aerosols</u> The nearest residential properties are two houses adjacent to the southwestern site boundary (the nearest being ~25m from a poultry house). The Environment Agency screen intensive livestock rearing units using a distance of 100m to the nearest sensitive receptor(s). This is based on a 2009 DEFRA report. Should it be identified by the applicant that there are sensitive receptors within 100m from the boundary of such units the applicant is required to carry out a bio aerosol risk assessment. PHE is currently updating its Intensive Farming position paper as part of wider work on the health impacts on exposure to bio aerosols from intensive farming. The evidence base for human exposure to bio aerosols from intensive livestock rearing units remains limited, compared to composting facilities. The nature of the evidence that is available however indicates that there are differences between both sources (pig or poultry). The nature of the bio aerosols (fungal or bacteriological) is also important. A systematic review of the evidence for adverse human health effects of bio aerosol emissions from intensive farming is currently underway and should be completed by the end of 2017. It is assumed by PHE that the installation will comply in all respects with the requirements of the permit, all relevant domestic and European legislation, and will use Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health. More information is available on the public health impacts of intensive farms in the Public Health England Position Statement which can be found at: http://webarchive.nationalarchives.gov.uk/20140714084352/http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1195733812766
Summary of actions taken or show how this has been covered
To prevent significant emissions from the site the Operator has proposed appropriate measures to manage dust and bio aerosols - a site specific risk assessment has been provided by the Operator. This includes the use of appropriate housing design and management and appropriate containment of feedstuff. We are satisfied that these measures will appropriately mitigate emissions to prevent a significant impact from the site. Notwithstanding the above, Condition 3.2 of the environmental permit also deals with emissions of substances not controlled by emission limits. Under this condition, if notified by the Environment Agency that the activities are giving rise to pollution, the Operator must submit an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits.

The Health and Safety Executive (HSE), the Director of Public Health East Riding of Yorkshire Council and the local Environmental Health Department East Riding of Yorkshire Council were also consulted but we received no responses. We also received no responses from members of the public.