Permitting decisions

Variation notice

We have decided to issue the variation for Newland Farm Poultry Unit operated by Mr Michael Hardcastle, Mrs Christine Hardcastle and Mr Richard Hardcastle (trading as M.A. & C. & R. Hardcastle).

The permit number is EPR/YP3030TL.

The variation number is EPR/YP3030TL/V002.

This was applied for and determined as a substantial variation.

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. The introductory note summarises what the permit covers.

Key issues of the decision

Description of Variation Changes

This variation authorises the following:

- the increase of broiler places from 100,000 to 160,000 places;
- an additional poultry shed ventilated by high velocity roof extraction fans;
- the installation of three biomass boilers (one 500 kilowatt thermal (kWth) and two 199 kWth), burning virgin biomass fuel not comprising waste or animal carcasses; and
- the installation of two 45 kWth combined heat and power (CHP) units.

No extra land is required as a result of this variation.

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.
Amendments have been made to the conditions of this variation so that it now 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 original site condition report (SCR) for Newland Farm Poultry Unit (21st January 2010) 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.**

Biomass Boilers

The applicant is varying their permit to include three biomass boilers and two biomass combined heat and power (CHP) units with a net rated thermal input of 898 kilowatts.

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;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive; and
- the aggregated boiler net rated thermal input is less than 0.5 MWth; or
    - less than 1 MWth where the stack height is greater than 1 metre above the roof level of buildings within 25 metres (where there are no buildings within 25 metres, the stack height must be a minimum of 3 metres above ground) and there are:
        - no Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites or Sites of Special Scientific Interest (SSSI) within 500 metres of the emission point(s);
        - no National Nature Reserves (NNRs), Local Nature Reserves (LNRs), ancient woodlands (AWs) or local wildlife sites (LWSs) within 100 metres of the emission point(s); or
        - less than 2 MWth where, in addition to the above criteria for less than 1 MWth boilers there are:
            - no sensitive receptors within 150 metres of the emission point(s).

Our risk assessment has shown that the biomass boilers 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.

Ammonia Emissions Assessment

There are three SACs, two SPAs and two Ramsar sites located within ten kilometres of the installation. There are is one SSSI within five kilometres, one LNR and three LWSs within two kilometres of the farm.

<u>Ammonia Assessment – SAC, SPA and Ramsar</u>

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

- if the process contribution (PC) is below 4% 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 in combination assessment is required; and
- an in combination assessment will be completed to establish combined PCs for all existing farms identified within 10 kilometres of the application.

Screening using the Ammonia Screening Tool (AST) version 4.5 has determined that the PC on the SACs, SPAs and Ramsar sites for ammonia, acid and nitrogen deposition from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. Screening has indicated that emissions from Newland Farm Poultry Unit will only have a potential impact on European designated sites with a CLe 1 µg/m³ if they are within 3,385 metres of the emission source. Screening indicated that beyond this distance, the PC at European conservation sites is less than 0.4 µg/m³ or less

than 4% of the CLe and therefore beyond this distance the PC is insignificant. In this case all the identified European sites are beyond this distance, as shown in Table 1 below.

Table 1 – European sites; distance from source

Site	Distance (metres)
Humber Estuary SAC, SPA and Ramsar	4,836
Lower Derwent Valley SAC, SPA and Ramsar	9,724
River Derwent SAC	9,596

The PCs at the European sites above have been screened out as insignificant. It is possible to conclude no likely significant effect will occur at these sites and no further assessment is required.

Ammonia Assessment – SSSI

The following trigger thresholds have been applied for the assessment of SSSIs:

- if the PC is below 20% of the relevant CLe or CLo then the farm can be permitted with no further assessment;
- where this threshold is exceeded an in combination assessment is required; and
- an in combination assessment will be completed to establish combined PCs for all existing farms identified within 5 kilometres of the application site.

Screening using the AST v4.5 has determined that the PC on the SSSI for ammonia, acid and nitrogen deposition from the application site are under the 20% significance threshold and can be screened out as having no likely significant effect. Screening using AST v4.5 has indicated that emissions from Newland Farm Poultry Unit will only have a potential impact on SSSI sites with a CLe of 1 µg/m³ if they are within 1,209 metres of the emission source. Screening indicated that beyond this distance, the PC at the SSSI is less than 0.2 µg/m³ or less than 20% of the CLe and therefore beyond this distance the PC is insignificant. In this case the SSSI is beyond this distance, as shown in Table 2 below.

Table 2 – SSSIs; distance from source

Site	Distance (metres)
Humber Estuary	4,836

The PC at Humber Estuary SSSI has been screened out as insignificant. It is possible to conclude no likely significant effect will occur at these sites and no further assessment is required.

Ammonia Assessment – LNR and LWSs

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

- if the PC is below 100% of the relevant CLe of CLo then the farm can be permitted with no further assessment.

Initial screening using AST v4.5 has indicated that emissions from Newland Farm Poultry Unit will only have a potential impact on the LNR and LWSs with a precautionary level of 1 µg/m³ if they are within 432 metres of the emission source. Beyond 432 metres the PC is less than 1 µg/m³ and therefore beyond this distance the PC is insignificant. In this case the LNR and LWSs are beyond this distance and therefore screen out of any further assessment, as shown in Table 3 below.

Table 3 – Other nature conservation sites; distance from source

Site	Distance (metres)
Eastrington Ponds LNR	1,694
Eastrington Ponds LWS	1,694
Ings Wood LWS	1,446
Slipperbridge Pit LWS	1,591

The PC at the LNR and LWSs have been screened out as insignificant. It is possible to conclude no likely significant effect will occur at these sites and no further assessment is required.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
Consultation	
Consultation	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, from the 15th February 2017 to the 15th March 2017. We consulted the following organisations: • Director of Public Health • Public Health England • Health and Safety Executive • Local Authority – Environmental Health The comments and our responses are summarised in the consultation section.
Operator	
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.
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

Aspect considered	Decision
	habitats identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. We have not consulted Natural England on the application. However, an Appendix 11 was sent to Natural England 'for information only' on 14/02/2017. 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. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Operating techniques for emissions that screen out as insignificant	Emissions of ammonia, acid and nitrogen deposition have been screened out as insignificant, and so we agree that the applicant's proposed techniques are BAT for the installation. We consider that the emission limits included in the installation permit reflect the BAT for the sector.
Odour management	We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory.
Noise management	We have reviewed the noise management plan in accordance with our guidance on noise assessment and control. We consider that the noise management plan is satisfactory.
Permit conditions	
Raw materials	We have specified limits and controls on the use of raw materials and fuels. We have specified that only virgin timber (including wood chips and pellets), miscanthus or straw shall be used as a fuel for the biomass boiler. These materials are never to be mixed with, or replaced by, waste.
Emission limits	We have decided that emission limits are not required in the permit.

Aspect considered	Decision
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. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.
Relevant convictions	The Case Management System has been 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.

Consultation

The following summarises the responses to consultation with other organisations and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from
Health and Safety Executive – received on 15/02/2017
Brief summary of issues raised
No concerns
Summary of actions taken or show how this has been covered
None required

Response received from
Public Health England (PHE), CRCE, Nottingham – received on 26/04/2017
Brief summary of issues raised
PHE noted that their response was based on the assumption that the installation will comply in all respects with the requirements of all relevant domestic and European legislation, including: • Environmental Permitting (England and Wales) Regulations 2010; • Groundwater Regulations (2009) and the European Groundwater Directives (80/68/EEC and 2006/118/EC); and • European Air Quality Framework Directive 96/62/EC and daughter directives and new Air Quality Directive 2008/50/EC. It was further noted that compliance with the legislation, together with good management and regulation, should ensure that emissions present a low risk to human health. The main potential issues of relevance from a health perspective were reported to be diffuse emissions to air (including ammonia, bioaerosols and particulate matter). It was recommended that the regulator should ensure that ammonia emissions are minimised, and that the Local Authority is contacted to confirm that no recent noise, odour, dust or other nuisance complaints have been received about the installation. PHE noted that they assume that the use of BAT will ensure dust. It was also noted that further evidence on the potential of intensive farming industries to result in PM10 emissions is anticipated to become available over the next few years. Consequently PHE requested the opportunity to incorporate such evidence into future reviews of this permit. PHE noted their belief that there is significant potential for the generation of bioaerosols at intensive farming installations. It was acknowledged that limited direct evidence is currently available of levels of bioaerosol emissions specifically from intensive farming processes. Existing studies were noted to suggest that exposure levels may vary within individual parts of industry (specific reference was made to individual parts of the waste treatment industry), suggesting that there is potential to reduce exposure, and hence risk of health effects, through good practice.

It is anticipated that further evidence on the potential for farm installations to cause bioaerosol emissions, and of the potential health effects of these emissions on nearby communities, will become available over the next few years. This is a research area for both the Environment Agency (EA) and PHE. Information concerning the above recommendations should be sent to PHE for review when it becomes available, as it may affect the comments made in this response. The comments were made based upon the information contained within the submitted application and the following assumptions: • the permit holder uses Best Available Techniques (BAT)
Summary of actions taken or show how this has been covered
Conditions 3.1.1., 3.2.1., 3.2.2., 3.2.3., 3.3.1., and 3.4.1., concerning noise, odour and fugitive emissions included in permit.

Representations from individual members of the public

Brief summary of issues raised
Concerns over the increase in poultry numbers impact on member of publics dwelling (within 400 metres) and the environment. Principle concerns are: airborne pollution, further odour issues, water pollution to nearby dyke and increased exposure to airborne human pathogens.
Summary of actions taken or show how this has been covered
A written odour management plan (OMP) has been provided due to the close proximity of sensitive dwellings. The OMP identifies the likely sources of odour and the appropriate measures taken to minimise the risks. The OMP is a live document that should be updated if processes change, any odour issues arise or any complaints are received. Odour is regulated through condition 3.3. Emissions to the dyke are of uncontaminated roof and yard water only and therefore should not contain any odorous or harmful pollutants. During shed clean out wash water is collected in underground storage tanks and spread onto land in accordance with a manure management plan. There will be no increase in airborne human pathogens as a result of this variation. In the event of the livestock being infected a contractor would be employed to remove and cull the crop.