Determination of an Application for an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2016

Consultation on our decision document recording our decision-making process

The Permit Number is: **EPR/AP3237RR**
The Applicant is: **Bedfordia Farms Limited**
The Installation is located at: **Westwood Poultry Farm**
Land off Rushden Road
Rushden
Northamptonshire
NN10 0SQ

Application consultation commenced on: **10/01/19**
Application consultation ended on: **07/02/19**

Draft decision consultation commenced on: **12/03/20**
Draft decision consultation ended on: **16/04/20**

Environment Agency permitting decisions

What this document is about

This is a decision document, which accompanies a permit.

It explains how we have considered the Applicant's application, and why we have included the specific conditions in the permit we are proposing to grant. It is our record of our decision-making process, to show how we have taken into account all relevant factors in reaching our position. Unless the document explains otherwise, we have accepted the Applicant's proposals.

We have made our final decision only after carefully taking into account any relevant matter raised in the responses we received.

Preliminary information and use of terms

We gave the application the reference number EPR/AP3237RR/V003. We refer to the application as "the **Application**" in this document in order to be consistent.

The number we propose to give to the permit is EPR/AP3237RR. We refer to the proposed permit as "the **Permit**" in this document.

The Application was duly made on 10th December 2018.

The Applicant is Bedfordia Farms Limited (company number 00607130). We refer to Bedfordia Farms Limited as "the **Applicant**" in this document. Where we are talking about what would happen after the Permit is granted (if that is our final decision), we call Bedfordia Farms Limited "the **Operator**".

The proposed facility is located at Westwood Poultry Farm, Land off Bedford Road, Rushden, Northamptonshire, NN10 0SQ. We refer to this as "the **Installation**" in this document.

We are minded to grant the Permit for the Installation operated by the Applicant. We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the Permit will ensure that a high level of protection for the environment and human health is provided.

Purpose of this document

This decision document:

- Explains how the Application has been determined
- Provides a record of the decision-making process
- Shows how all relevant factors have been taken into account
- summarises the engagement carried out because this is a site of high public interest
- shows how we have considered the consultation responses

Structure of this document

1 Our proposed decision & legal framework

We are have decided to grant a variation to the Environmental Permit to the Applicant. This will allow it to operate the Installation, subject to the conditions in the Permit.

We consider that, in reaching that decision, we have taken into account all relevant considerations and legal requirements and that the Permit will ensure that a high level of protection is provided for the environment and human health.

The Permit will be varied, under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 (the "**Permitting Regulations**"). The Permitting Regulations deliver most of the relevant legal requirements for activities falling within its scope and implement relevant EU law. In particular, the regulated facility is an Installation and an intensive poultry farm as described by the Permitting Regulations and the Industrial Emissions Directive (IED). The Permit implements the requirements of IED in respect of the Installation.

It is also subject to aspects of other relevant legislation, beyond the Permitting Regulations, which also have to be addressed.

We explain how we have addressed specific statutory requirements more fully in the rest of this document. Where not covered elsewhere we set out how we have addressed relevant legal requirements in section 5.1 of this document.

The Permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard condition appropriate.

2. How we reached our decision

2.1 Receipt of Application

The Application was received on 24 July 2018; however we required further information from the Applicant in order for us to consider the Application duly made. This information was requested on 07 September 2018. The Applicant submitted additional information in response to the request which was deemed sufficient to enable us to duly make the Application.

The Application was duly made on 10th December 2018. This means we considered it was in the correct form and contained sufficient information for us to begin our determination; but not that it necessarily contained all the information we would need to complete that determination.

Although we were able to consider the Application duly made, we did in fact need more information in order to determine it, therefore we issued the requests for further information as set out in table 1 below.

Table 1 Summary of requests for further information		
Description	**Date**	**Comments**

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Description	**Date**	**Comments**
• Schedule 5 notice requesting further information issued 04/07/19	• Information received 31/07/19	• Clarification of Biomass Boiler and revised associated documents, site drainage and revised layout plan, revised odour management plan, revised noise management plan, revised raw materials inventory and revised Environmental management summary

A copy of the above information notices and the relevant responses have been placed on our public register.

2.2 Consultation on the Application

We carried out consultation on the Application in accordance with the Permitting Regulations, our statutory Public Participation Statement (PPS) and our own Regulatory Guidance Note (RGN) 6 for Determinations involving Sites of High Public Interest. We consider that this process satisfies, and frequently goes beyond, the requirements of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. These requirements are directly incorporated into the IED, which applies to the Installation and the Application. We have also taken into account our obligations under the Local Democracy, Economic Development and Construction Act 2009 (particularly Section 23). This requires us, where we consider it appropriate, to take such steps as we consider appropriate to secure the involvement of representatives of interested persons in the exercise of our functions, by providing them with information, consulting them or involving them in any other way. In this case, our consultation already satisfies the Act's requirements.

We advertised the Application by a notice placed on our website, which contained all the information required by the IED, including telling people where and when they could see a copy of the Application. We also placed an advertisement in the Northamptonshire Telegraph and Bedford Times & Citizen on 10/01/2019.

We placed a paper copy of the Application and all other documents relevant to our determination (see below) on our Public Register at: The Environment Agency offices, Brampton Office, Bromholme Lane, Brampton, Huntingdon, Cambridgeshire, PE28 4NE. Anyone wishing to see these documents could do so and arrange for copies to be made. We also published this Application on our webpages on GOV.UK and made available electronic copies of the Application on that webpage.

We sent copies of the Application to the following bodies, which includes those with whom we have "Working Together Agreements":

- Health and Safety Executive (HSE)
- Local Authorities East Northamptonshire Council and Bedford Borough Council

We have also notified the following bodies of the application:

Parish Councils and surrounding parish councils in the area

Wymington Parish Council

Rushden Town Council

Higham Ferrers Parish Council

Knotting and Souldrop Parish Council

Newton Bromswold Parish Council

Riseley Parish Council

Chelveston -Cum – Caldercott

Caldecott

Podington Parish Council

Melchbourne & Yeldon Parish Council

Swineshead & Pertenhall Parish Council

Sharnbrook Parish Council

MP's

Tom Pursglove (MP for Corby & East Northamptonshire)

Peter Bone (MP for Wellingborough)

Alistair Burt (MP for North East Bedfordshire)

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to notify them of the application.

Under our Working Together Agreement with Natural England, we only inform Natural England of the results of our assessment of the impact from the Installation on designated habitats sites. Please see sections 4.1 – 4.1.3 for further details of our assessment, which discusses the potential impacts of ammonia from the Installation on designated habitats sites.

In accordance with the Environment Agency's Public Participation Statement and RGN 6 for Determinations involving Sites of High Public Interest, we also consulted on the draft decision and permit for the Application. Copies of all consultation responses have been placed on the Environment Agency public register.

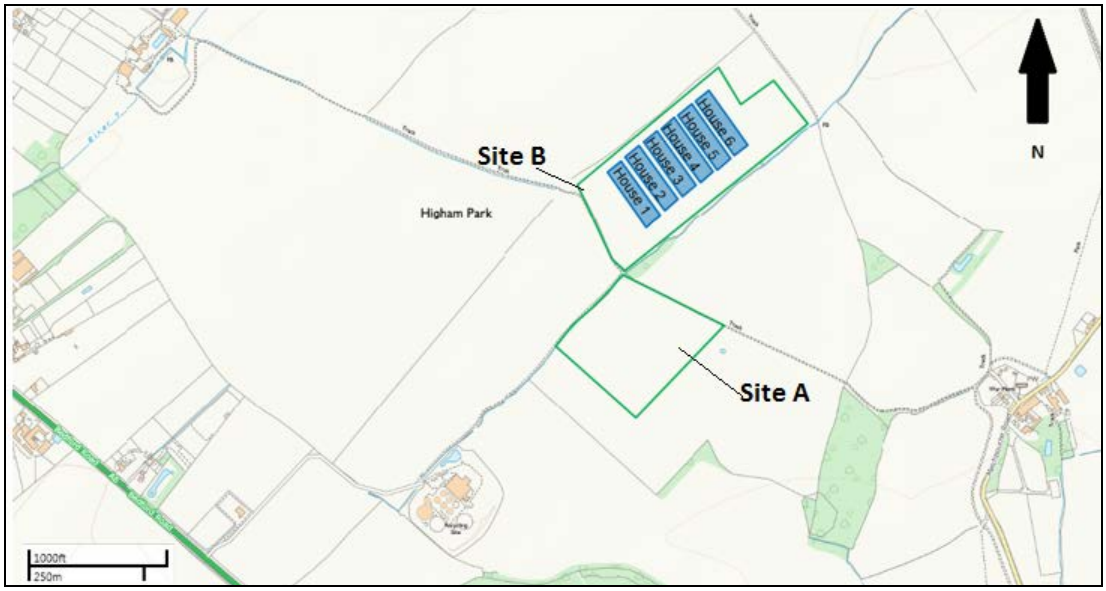
The draft decision was advertised on our website from 12 March 2020 – 16 April 2020 and in the Bedford Times and Northamptonshire Telegraphy on 12/03/2020. Additionally, we made available electronic copies of the draft decision and draft permit on the webpage, and copies of the draft decision and draft permit were placed on our public register at the Environment Agency's offices, Brampton Office, Bromholme Lane, Brampton, Huntingdon, Cambridgeshire, PE28 4NE.We have considered all timeous representations in reaching our decision. Further details can be found in Annex 2 of this document.

3. The Installation - Description of the Installation and related issues

This variation is an application to reduce the permitted number of broilers on site at any one time from 540,000 to 320,000. The number of poultry houses is reduced from 10 to 6.

Additionally, the permitted boilers have changed from 4 biomass boilers on site with an aggregated thermal rated input of 4.56 MW to 1 biomass boiler on the installation with a net rated thermal input on 1.945 MW. The permit ensures Medium Combustion Plant Directive (MCPD) compliance for this boiler as the thermal input capacity of the unit is greater than 1 MW

The installation covers 2 adjacent areas known as ‘Site A’ and ‘Site B’. Site B will contain the poultry houses.



3.1 The permitted activities

The Installation is subject to the Permitting Regulations because it carries out an activity listed in Part 2 of Schedule 1 of those regulations, namely:

Section 6.9, Part A(1)(i) – Rearing of poultry intensively in an installation with more than 40,000 places for poultry

The IED defines “poultry” by reference to Directive 90/539/EEC on animal health, which defines that term as:

“fowl, turkeys, guinea fowl, ducks, geese, quails, pigeons, pheasants and partridges reared or kept in captivity for breeding, the production of meat or eggs for consumption, or re-stocking supplies of game.”

The Applicant intends to intensively rear up to 320,000 chickens (fowl) at the Installation, so falls within the activity mentioned above.

And: Medium Combustion Plant (MCP): There will be 1 biomass boiler on the installation with a net rated thermal input of 1.945 MW. The permit ensures Medium Combustion Plant Directive (MCPD) compliance for this boiler as the thermal input capacity of the unit is greater than 1 MW

3.2 The site location and surroundings

Westwood Poultry Farm is situated in Knotting, a village in Bedfordshire. The installation is approximately 3.1 kilometres south east of the town of Rushden in Northamptonshire. The Installation is approximately centred on National Grid Reference SP 99427 63978.

The Applicant submitted a plan showing the site of the Installation and its extent. We consider this plan is satisfactory. The Operator is required to carry out the permitted activities within the Installation boundary.

We have undertaken screening to identify potentially sensitive receptors in the area surrounding the Installation. This identified the following.

The closest property to the installation boundary is an AD plant located ~315m south of the installation boundary.

There are no residential properties within 400m of the Installation boundary; and

The closest residential property is located ~681m to the east of the Installation boundary. This distance is from 'site A' which will not house any poultry. Site B, where the poultry houses will be situated is ~ 737m away from the closest property to the east of the installation boundary. Further properties are located approximately 894m to the south west of the boundary (but ~1106m from site B), ~1054m to the West of the installation boundary (Site B) and ~1349m to the north (of Site B).

3.3 What the Installation does & proposed site design

The installation was previously permitted to stock up to 540,000 broilers across 10 houses.

The installation was previously permitted to have 4 biomass boilers on site with an aggregated thermal rated input of 4.56 MW.

The Installation will comprise of six poultry houses, numbered one to six, which will operate with a capacity of 320,000 broiler places designed for the rearing of chicken for meat production. Birds will be housed at a day old and de-populated at around thirty-two to forty days of age with approximately seven days empty, which gives 7 cycles per annum, this will be done on an all-out, all-in basis.

Ventilation will be provided by high velocity (11.3 m/s) roof fans, and also gable end fans for the summer months when temperatures are typically higher.

We consider that the poultry houses are designed and will be built in accordance with best available techniques (BAT). The housing will be insulated and have a damp proof course. The housing will be fully insulated with a U-Value of approximately 0.4 $W/m^2/^oC$.

The houses will be heated by 1 biomass boiler with a thermal input of 1.945 MW.

Before bird arrival the houses will be pre-warmed by hot water blown air heaters. Floors will be covered to a minimum depth of 2 cm of bulk wood shavings. Temperature and humidity will be computer controlled and closely monitored on a daily basis to achieve a target level of 21º C post brooding and a relative humidity of 55-60%, which will achieve litter with a dry matter content of between 60-70%, which is important to minimise emissions. Water will be provided via a nipple drinking system fitted with cups to reduce leakage and spills leading to drier litter.

Birds will be fed a minimum of three diets during their growth, with gradually reducing levels of protein and phosphorous as bird age increases. Feed will be delivered from a UKASTA accredited feed mill and blown into bulk feed bins situated at the ends of the houses, from the feed bins the feed will be augured into the houses and distributed to the birds via a pan feeding system.

At depletion the litter will be removed from the site and used on operator controlled land in accordance with a manure management plan, with some surplus being sold. No manure will be stored on site. The farm will then be pressure washed, disinfected and dried out prior to the cycle beginning again.

Dirty wash water will be collected via the concrete apron to a drain with a diverter valve to underground tanks and spread on the operators own land. Uncontaminated yard water will be sent via the concrete apron to an attenuation pond where clean water is discharged to a ditch. Clean roof water will drain to French drains which will run alongside the houses, and any excess water will be discharged to the attenuation pond. The attenuation pond will discharge to a ditch north of the site and ultimately drain to the River Til.

Fallen stock during the production cycle will be collected and recorded daily. The carcasses will be stored in sealed containers and will be regularly incinerated on site by a licensed APHA approved incinerator.

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

There are point source emissions from the Installation to air, water and land.

The key features of the Installation can be summarised in the table 2 below.

Table 2 Key features of the Installation

Operational features	**Description**		
Broiler rearing	320,000 day old chicks reared for approximately 32 to 40 days on site.		
Poultry house ventilation	High velocity roof fans (11.3m/s); and gable end fans (operated intermittently during hot weather conditions).		
Litter management	No litter will be stored on site. Litter is collected at the end of each cycle and transferred off site for spreading on operator controlled land in accordance with a manure management plan, with some surplus being sold.		
Waste water management	All contaminated wash water from inside the buildings is collected in underground tanks and spread on the operators own land. Yard water is sent via the concrete apron to a drain with a diverter valve where clean water is discharged to a ditch and lightly contaminated water is sent to the dirty water tank. Clean roof water is discharged to a ditch north of the site.		
Carcass management	Fallen stock during the production cycle is collected and recorded daily. The carcasses are stored in sealed containers and are regularly incinerated on site by a licensed APHA approved incinerator.		
Site drainage	Roof water from the poultry houses is collected by French drains, which act as soakaways, which lead to an on-site attenuation pond for periods of heavy rainfall. In addition uncontaminated or clean yard surface water (during normal operations, not at clean out times) drains to these French drains which run alongside the houses, and any excess water is discharged to the attenuation pond. The attenuation pond discharges to a ditch north of the site and ultimately drains to the River Til. The swale is formed through the digging out and bunding of soil, and will only be used in times of heavy rainfall. It will be large enough to ensure no run off will occur from the Installation. Suitable treatment of potentially lightly contaminated water prior to discharge to surface water or ground can include swales as detailed in section 3.1 of our sector guidance note EPR 6.09 'How to comply with your environmental permit for intensive farming', version 2.		
Storage and use of raw material	**Description**	**Maximum amount stored**	**Annual throughput**
	Disinfectants		
	Shift	100 litres	300 litres
	Bioclean Aqua	100 litres	300 litres
	Farm Fluid	100 litres	300 litres

	Formalin	400 litres	2400 litres
	Rodenticides / Insecticides	3 litres	5 litres
	Veterinary medicines	3.4 million doses (approximately)	320,000 doses (approximately)
	Bedding (straw / shavings)	100 tonnes (approximately)	24 tonnes
	Diesel	800 litres	1300 litres
	Gas	48,000 litres	24,000 litres
	Woodchip	200 tonnes	1800 tonnes

The Application has been assessed in line with our sector guidance note: EPR 6.09 'How to comply with your environmental permit for intensive farming' (EPR 6.09) (version 2) which can be viewed at the following link:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf and the Best Available Techniques Reference Document (BREF) for the Intensive Rearing of Poultry or Pigs (IRPP), which was published on 21 February 2017. There is a separate Best Available Techniques (BAT) Conclusions document which sets out the standards that permitted farms have to meet.
The BAT Conclusions document is available via the following link:

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

The techniques proposed by the Applicant meet the requirements set out in this guidance and are considered to be the best available techniques (BAT) for a broiler unit of this size. It is a requirement of the Permit that the poultry unit is operated in line with this guidance and the new BAT conclusions document.

The Applicant has confirmed that the operation of the farm will be in accordance with the relevant sections of our sector guidance note EPR 6.09 and the new Best Available Techniques Reference Document (BREF) for the Intensive Rearing of Poultry or Pigs (IRPP),

4. Key issues of the decision

4.1 Ammonia Emissions – Ecological Receptors

Given the nature of the proposed activity, there is the potential for atmospheric ammonia to be released into the environment and impact nearby sensitive habitats and species. For this reason we have carried out an assessment of the risk. Sites that screen in as <5km (plus buffer distance from centre of farm to installation boundary) are listed in tables 4 and 5.

Ammonia emissions from farms may lead to both direct and indirect effects on vegetation. Nitrogen deposition can lead to acidification of the ecosystem or act as a fertiliser, leading to nutrient enrichment and subsequent changes in the structure of the habitat.

The Conservation of Habitats and Species Regulations 2017 (which implements the Habitats and Birds Directives) provides protection in law for Special Areas of Conservation (SACs) and Special Protection Area (SPAs). Government policy is that Ramsar sites are also treated in the same way as SACs and SPAs. Before granting the Permit we must determine whether the Installation would be likely to have a significant effect on a SAC, SPA or Ramsar site. If it would, we may only grant the Permit after carrying out an appropriate assessment and ascertaining that the Installation will not adversely affect the integrity of a SAC, SPA or Ramsar site or else that an exception applies.

The Wildlife and Countryside Act 1981 provides protection in law for Sites of Special Scientific Interest (SSSIs). Before granting the Permit we must determine whether the Installation is likely to damage any of the flora, fauna or geological or physiographical features by reason of which a SSSI is designated. If it is, we may only grant the Permit after notifying Natural England, waiting 28 days, and taking any advice we receive from them into account.

The above legislation, as well as other legislation such as the Environment Act 1995 and the Natural Environment and Rural Communities Act 2006, provides additional protection for flora and fauna whether or not existing in specifically designated conservation sites.

We set out below how we have assessed the Application in view of this legislation.

To determine whether the Installation is likely to have a significant effect on a SAC, SPA or Ramsar site, and whether it is likely to damage any of the relevant features of a SSSI, we consider the impact of the Installation in combination with other sources of potential impacts. This is done by considering the Installation's process contribution (PC) and the background levels where the PC does not screen out.

When assessing the Installation's likely impact to flora and fauna more generally (including within other sites such as National Nature Reserves (NNR), Local Nature Reserves (LNR), Local Wildlife Sites (LWS) and Ancient Woodland) we look at the impact from the Installation alone in order to determine whether it would cause significant pollution. This is a proportionate approach, in line with the levels of protection offered by the conservation legislation to protect these other sites (which are generally more numerous than SACs, SPAs, Ramsar sites or SSSIs). It also allows us to strike a balance with other legal duties we are subject to, such as 'to have regard to the desirability of promoting economic growth', by ensuring that we do not unnecessarily restrict development.

Critical levels and loads[1] are set to protect the most vulnerable habitat types. Thresholds change in accordance with the levels of protection afforded by the legislation. Therefore the thresholds for SAC, SPA and SSSI features are more stringent than those for other nature conservation sites. For these other sites we consider that the Installation would not cause significant pollution if the PC is less than the relevant critical level (CLe) or critical load (CLo), provided that the Applicant will be using BAT to control emissions.

The screening assessment has considered any SACs, SPAs and Ramsar sites within 5km of the Installation boundary; any SSSIs within 5km of the Installation boundary and any other nature conservation sites (including NNRs, LNRs, Ancient Woodlands and LWSs), within 2km of the Installation boundary. There are no SACs, SPAs or Ramsar sites within 5 km, but there is one SSSI located within this distance. There are 12 other conservation sites within 2 km, comprising of 9 LWSs and 3 Ancient Woodlands.

We have used the Environment Agency's Ammonia Screening Tool, version 4.5 (AST v4.5) to assess the predicted impact of the Installation at those sites identified within the above distance criteria.

We have applied a two stage screening criteria to the ammonia screening tool results, as follows:

Stage 1 - Where the ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be <Y% (for Y%, see Table 3 below) of the relevant CLe or CLo, the Installation does not require an ammonia assessment (it is 'screened out').

[1] Critical loads and levels have been used by the United Nations Economic Commission for Europe (UNECE) to set targets for reductions in acid rain and the effects of nitrogen on sensitive ecosystems. The system used to work out critical loads has been agreed by the UNECE and is used by individual countries to calculate appropriate standards. Critical levels for key pollutants, such as ammonia, are proposed by a UNECE working group of international experts on the effects of air pollutants on ecosystems. Critical loads and levels provide the best available scientific information on the effects of pollutants on ecosystems.

Stage 2 - Further modelling is required (the Installation is not 'screened out') where:

- emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) are in excess of Z% (for Z%, see Table 3 below) of the relevant CLe (ammonia) or CLo (nutrient nitrogen or acid) at any particular designated site;
- there is the potential for an in-combination effect with existing farms at a SAC, SPA, Ramsar site and/or SSSI if emissions are >Y% of the CLe or CLo;
- the Installation is already permitted and the original permit required an Improvement Condition to reduce ammonia emissions; or
- the Installation is within 250m of a nature conservation site.

Table 3 Screening thresholds		
Designation	**Y%**	**Z%**
SAC, SPA, Ramsar site	4	20
SSSI	20	50
NNR, LNR, LWS, Ancient Woodland	100	100

The nature conservation site assessment takes into account the United Nations Economic Commission for Europe (UNECE) CLes for ammonia, which have been applied as follows:

- sites with sensitive Lichen or Bryophyte interest and habitats for which sensitive lichens and bryophytes are an integral part: 1µg/m^3; and
- other vegetation: 3µg/m^3.

The assessment also considers the deposition of ammonia resulting in nutrient enrichment (and acidification) against relevant CLos. However, where a CLe of 1µg/m^3 is assigned, we believe the CLe is protective enough for deposition impacts and so no deposition assessments are necessary in this instance. Where a CLe of 3µg/m^3 is applied, deposition is considered as part of the assessment.

A 4% trigger threshold has been designated[2] for assessment of SACs, SPAs and Ramsar sites such that:

- if the Process Contribution (PC) is below 4% of the relevant CLe or CLo then the Installation is not considered likely to have a significant effect on these sites and can be permitted with no further assessment; and
- if this threshold is exceeded the Installation may have a likely significant effect and a more detailed appropriate assessment (in consultation with Natural England) is required. An overlapping in combination assessment will also be completed where existing farms are identified within 5km of the SAC, SPA or Ramsar site.

A 20% trigger threshold is applied for assessment of SSSIs such that:

- if the process contribution (PC) is below 20% of the relevant critical level (CLe) or critical load (CLo) then the Installation is not considered likely to damage any of the relevant features of a SSSI and can be permitted with no further assessment; and

[2] The Air Quality Technical Advisory Group (AQTAG) agreed the thresholds in 2007, this was in consultation with Natural England and, at the time, the Countryside Council for Wales (now Natural Resources Wales) as both bodies are represented on the AQTAG group. Thresholds are expressed as a percentage of the relevant critical level or load and are based on: best available evidence of impacts at the time, professional judgement, and consideration that farms were already contributing to existing background levels. All thresholds are based on the best available evidence. We will review thresholds if/when new evidence becomes available.

- if this threshold is exceeded the Installation (in consultation with Natural England) is required. An in combination assessment will be also completed to establish the combined PC for all existing farms identified within 5 km of the SSSI.

4.1.1 Ammonia Assessment

There are no SACs, SPAs or Ramsars within 5km of the installation. There is 1 SSSI located within 5 km of the installation. There are also 9 Local Wildlife Sites (LWS), and 3 Ancient Woodlands within 2 km of the installation.

4.1.2 Ammonia assessment – SSSI

Initial screening using the ammonia screening tool version 4.5 has confirmed that emissions from Westwood Poultry Farm will only have a potential impact on SSSI site with a precautionary critical level of 1µg/m^3 if they are within 1,432 metres of the emission source.

Beyond 1432m the PC is less than 0.2µg/m^3 (i.e. less than 20% of the precautionary 1µg/m^3 critical level) and therefore beyond this distance the PC screens out as insignificant. In this case the SSSI is beyond this distance (see table below) and therefore screen out of any further assessment.

In this case the 1µg/m^3 level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely damage to this site

Table 4 – SSSI Assessment

Name of SSSI	Distance from site (m)
Yelden Meadows	3,651

4.1.3 Ammonia assessment - LWS/AW

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 Westwood Poultry Farm will only have a potential impact on the LWS/AW sites with a precautionary critical level of 1µg/m^3 if they are within 491 metres of the emission source.

Beyond 491m the PC is less than 1µg/m^3 and therefore beyond this distance the PC is insignificant. In this case all LWS/AWs are beyond this distance (see table below) and therefore screen out of any further assessment.

Table 5 – LWS/AW Assessment

Name of LWS/ AW	Distance from site (m)
No data available (LWS)	1,854
No data available (LWS)	1,396
West Wood CWS (LWS)	930
No data available (LWS)	1,063
Newton Gorse Green Lane CWS (LWS)	1,042

Newton Gorse CWS (LWS)	1,396
Penn and Worley's Wood CWS (LWS)	2,011
Forty Foot Lane CWS (LWS)	2,372
Halsey Wood CWS (LWS)	2,490
Sheeprack Wood (AW)	930
Halsey Wood (AW)	2,492
Penny/Worleys Wood (AW)	2,018

4.2 Ammonia – Human Health Impact Assessment

The Health Protection Agency (now Public Health England) has stated (Position Statement, Intensive Farming 2006) that it is unlikely that ammonia emissions from a well-run and regulated farm would be sufficient to cause ill health.

Whilst the potential adverse effects of ammonia include respiratory irritation and may also give rise to odour complaints, levels of ammonia in ambient air will decrease rapidly with distance from a source.

The Applicant's measures to manage particulate emissions to minimise ammonia emissions from the Installation are included in its Environmental Risk Assessment and Odour Management Plan. We have assessed these measures and have determined they represent best available techniques for this activity. Measures include operating ventilation systems to achieve optimum humidity levels for the stage of production in all weather and seasonal conditions. Furthermore, condition 3.2 of the Permit applies to substances not controlled by emissions limits, also known as fugitive emissions. The conditions read:

3.2.1 Emissions of substances not controlled by emission limits shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits; and

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

The Operator will be required to manage its activities so that they do not cause pollution.

We did not consult with PHE under variation application V003 as the application was to reduce bird numbers stocked on the installation and they had been consulted on the previous variation that increased bird numbers to those currently proposed. We carefully assessed the health impacts and considered the advice from PHE, who are the authority in matters relating to public health at those higher bird numbers and are satisfied this variation does not require further consultation as the proposal will reduce any

potential health impacts when compared to what is currently permitted. The consultation response from PHE can be found within Annex 2 of the Decision Document for variation V002.

We conclude that ammonia from the Installation is unlikely to have a significant health impact on human receptors, given the conditions imposed by the Permit.

4.3 New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is a separate BAT Conclusions document which sets out the BAT conclusions and sets the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

Now the BAT Conclusions are published **all new housing within variation applications** issued after the 21st February 2017 must be compliant in full from the first day of operation.

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels (AELs) 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.

.All housing is new in this variation as the site has not yet been built and the location of housing has changed so it has been assessed against the BAT conclusions**.**

New BAT conclusions review

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

We sent out a not duly made request dated 31/08/18 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 housing, in their document reference “Westwood Farm” and dated 11/09/18.

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	The Applicant has confirmed it will demonstrate it achieves levels of Nitrogen excretion below the required BAT-AEL of 0.034 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content. This confirmation was in response to the Not Duly Made Request for further information received 11/09/18, which has been referenced in Table S1.2 Operating Techniques of the Permit. Table S3.3 of the Permit concerning process monitoring requires the Operator to

BAT measure	Applicant compliance measure
	undertake relevant monitoring that complies with these BAT Conclusions.
BAT 4 Nutritional management Phosphorous excretion	The Applicant has confirmed it will demonstrate it achieves levels of Phosphorous excretion below the required BAT-AEL of 0.25 kg P_2O_5 animal place/year by an estimation using manure analysis for total Phosphorous content. This confirmation was in response to the Not Duly Made Request for further information, received11/09/18, which has been referenced in Table S1.2 Operating techniques of the Permit. Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions
BAT 25 Monitoring of emissions and process parameters - Ammonia emissions	Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 26 Monitoring of emissions and process parameters - Odour emissions	The approved OMP includes the following details for on Farm Monitoring and Continual Improvement: • 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. • Visual (and nasal) inspections of potentially odorous activities will be carried out.
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 Not Duly Made Request for further information, received11/09/18, 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 NH3/animal place/year. The Applicant will meet this as the emission factor for broilers is 0.034 kg NH3/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

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.

For variations all new housing on existing farms will need to meet the BAT-AEL. All houses on the installation is new housing. The supporting document 'Westwood Farm' (received 11/09/19) confirms that the installation will be able to meet the new BAT AEL's. The AEL for new housing is 0.08kg NH3/animal place/year (see table above). The standard emission factor for broilers is 0.034kg NH3/animal place/year which is lower than the ammonia AEL for housing and therefore the operator is compliant with BAT conclusion 32.

4.4 Industrial Emissions Directive (IED)

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

4.5 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).

Under section 3.3 of the guidance ' EPR 6.09 How to Comply' 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.

Section 4.5.1 outlines the potential sources of odour, and the key measures to mitigate risks are listed in the OMP and reviewed in section 4.5.2 below.

4.5.1 Risk Assessment

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, poor quality and odorous ingredients, feeds which are 'unbalanced' in nutrients.
- Feed delivery and storage – spillage of feed during delivery and storage, creation of dust during feed delivery.
- Ventilation and heating systems/Dust - inadequate air movement in the houses leading to high humidity and wet litter, inadequate system design causing poor dispersal of odour. Extraction fans located close to sensitive receptors. Dust.
- Litter management – odours arising from wet litter

- Carcass disposal – inadequate storage of carcasses on site.
- House clean out – creation of dust associated with litter removal from houses. Use of odorous products during cleaning.
- Used litter – storage of used litter on site. Transport of litter and land spreading.
- Washing operations including vehicles – loss of dirty water to land or watercourses
- Fugitive emissions – leaks to doors, bin pipes, feed bins, fuel and chemical storage
- Dirty water management – standing dirty water during the production cycle or at clean out. Application of dirty water to land.
- Abnormal operations – water leak/ pipe failure. Bird health/sickness.
- Waste production/storage – Odour from production or storage areas.
- Materials/ storage – Potential odour source.

4.5.2 Odour Management Plan Review

The sensitive receptors that have been considered under odour do not include people directly associated with the farm operations who would be covered by Health and Safety at work legislation.

For clarity, the operator has named the two parts of the site Site A and Site B (see site plan below). Only site B will contain poultry houses.

The closest property to the installation boundary is an AD plant located ~315m south of the installation boundary. There are no residential properties within 400m of the Installation boundary; and the closest residential property is located ~681m to the east of the Installation boundary. This distance is from 'site A' which will not house any poultry. Site B, where the poultry houses will be situated is ~ 737m away from the closest property to the east of the installation boundary. Further properties are located approximately 894m to the south west of the boundary (but ~1106m from site B), ~1054m to the West of the installation boundary (Site A) and ~1349m to the north (of Site B).

See plan in section 3.0

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 dated 31/07/19) reference 'Odour Management Plan').

The OMP includes odour control measures as detailed below:

- Manufacture and selection of feed – No on-site milling and mixing. Feed specifications are prepared by the feed compounder's nutritional specialist. Protein is reduced in accordance with SGN EPR 6.09 'How to comply with your environmental permit for intensive farming'.
- Feed delivery and storage – Feed delivery systems are sealed to minimise atmospheric dust. Any spillage of feed around the bin is immediately swept up. The condition of feed bins is checked frequently so that any damage or leaks can be identified. Feed deliveries are monitored to avoid duct and spills.
- Ventilation and heating systems/Dust - Use of high velocity roof extraction fans to aid dispersion, checked prior to cycle commencement by qualified electrician who will provide 24hr breakdown cover. The ventilation and heating system is regularly adjusted to match the age and requirements of the flock. The ventilation system is designed to efficiently remove moisture from the house. Gable end fans operated only during hot weather to aid cooling. Indirect heating system giving lower humidity levels. Humidity recorded daily and maintained in the range of 55 –

65% keeping a balance of dry litter and avoiding dust production. Stock inspections carried out by trained staff to avoid panicking birds creating dust.

- Litter management – Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include: - Use of nipple drinkers with drip cups to minimise spillage. Daily checks of drinker height and pressures to avoid capping. Insulated walls and ceilings to prevent condensation. Concrete floors to prevent ingress of water. Stocking levels at optimum to prevent overcrowding. Use of veterinarian bespoke health plan.

- Carcass disposal – Carcasses placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors awaiting incineration in a licensed incinerator. Incinerator to be operated as per manufacturer's guidance. Regular servicing and recording of burn temperatures as per Animal health license.
- House clean out – Litter carefully placed into trailers positioned close to doors. Trailers sheeted before leaving fill position. Only DEFRA approved and suitable products used. Chemical containers triple washed at point of use. Wash water tank levels monitored during washing and emptied as required to prevent overfill. Clean out carried out as soon as possible following destocking. (1 day)
- Used litter – No storage on site at any time. All trailers sheeted before leaving fill position. Avoidance of double handling. Any land spread under the control of separate farming business with written agreement. Spread in strict accordance with Manure Management Plan.
- Washing operations including vehicles – Use of specialist contractors for washing operations. Bespoke terminal hygiene program followed, detailing quantities of water and chemical dilution rates. Key staff monitoring washing operations ensuring effective drainage to dirty water tanks. Dirty water tanks monitored during wash down to maintain freeboard. Vehicle washing at designated wash point. All sediment traps and drains cleaned both before and after washing operations
- Fugitive emissions – Checks to feed storage and fill pipes as per routine maintenance schedule. Fuel oil in approved bunded storage tank. Chemicals in secure bunded shed free from frost and unauthorised entry together with any veterinarian products/medicine
- Dirty water management – Working areas around houses are concreted and kept clean during production cycle. At clean out dirty water from houses together with lightly contaminated yard wash is directed to the underground storage tanks, before being removed off site and spread to land under control of a separate farming business. Written agreement is in place.
- Abnormal operations – Water consumption monitored daily ensuring early detection, wet area blanket covered with top up bedding material to prevent increased odour.
- Veterinarian contacted (24hour cover) Litter covered with fresh top up bedding to minimise increased odour until bird health recovered. Abnormal events documented, dated and signed, appropriate plans reviewed and updated to prevent reoccurrence i.e. Routine maintenance schedule, Technical standards
- Waste production/storage – No storage or production of odorous waste on site. Waste management plan in force detailing types and quantities produced along with disposal routes. Records kept on site.
- Materials/ storage – Feed delivered into sealed vermin proof silos. Sealed delivery system into poultry houses with no milling or mixing on site. Remaining feed at end of cycle stored in sealed silo and used on subsequent cycle. 3 month shelf life of feed negating the need for removal. Raw

materials inventory recorded and kept on site. Cleaning chemicals kept in frost free secure bunded storage area, Chemical spill kit available.

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. This also includes twice daily olfactory perimeter checks by Estate personnel not directly involved in poultry production, in order to comply with BAT 26.

The OMP also provides a suitable procedure in the event of complaints in relation to odour. The operator has confirmed that the OMP will be reviewed annually or 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. There are no receptors within 400m NE of the installation boundary. The only receptor within 400m of the installation boundary is the AD plant ~315m south of the installation boundary

As an additional measure, the operator has confirmed in the planning application that trees and hedges will be planted to reduce odour travelling via the prevailing wind.

The Environment Agency has reviewed the OMP and consider it complies with the requirements of our H4 Odour management guidance note.

4.5.3 Conclusion

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, in the unlikely event there is a complaint, there is a requirement to review and record whether changes to the OMP should be made and make any appropriate changes to the OMP identified in the review.

Although there is the potential for odour pollution from the Installation, the operator's compliance with the Permit and its OMP will minimise the risk of odour pollution beyond the Installation boundary. The risk of odour pollution at sensitive receptors beyond the Installation boundary is therefore not considered significant.

As this application is to reduce the maximum permitted number of bird on the installation at any one time, and based on the information in the application we are satisfied that appropriate measures will be in place to prevent or where that is not practicable minimise odour emissions and prevent pollution from odour.

4.6 Noise Management Plan

The sensitive receptors that have been considered under noise do not include people directly associated with the farm operations who would be covered by Health and Safety at work legislation.

We have previously assessed noise risk at the installation as being acceptable and this variation is to reduce the maximum number of birds permitted on the installation at any one time, therefore the risk of

noise is reduced. An NMP should contain appropriate measures to prevent, or where that is not practicable to minimise noise emissions. Noise pollution from the Installation is one of the concerns for members of the public who have commented on this variation.

Operations with the most potential to cause noise nuisance have been assessed and control measures put in place, as described in the NMP (reference Noise Management Plan, dated 31/07/19), for all the activities with greatest potential to generate noise, including:

- Ventilation Fans
- Feed Deliveries
- Feeding Systems
- Fuel Deliveries
- Alarms Systems
- Bird Catching
- Clean out Operations
- Maintenance + Repairs
- Set up and Placement
- Standby Generator testing

Please note: the Applicant has only considered vehicle movements accessing the site and within the Installation boundary as we can only regulate noise from within the installation boundary. Noise emitted from vehicles travelling on the local road network is outside our remit.

The operator has identified the following noise minimisation techniques that they will implement:

- **Ventilation Fans** – noise assessed during twice daily inspections. Large capacity roof mounted fans reducing the number of fans required. Fans operate on an intermittent programme. Regular end of cycle maintenance by qualified electrician. Noisy fans isolated and electrician notified.
- **Feed Deliveries** – delivery Lorries fitted with silencers. Large capacity Lorries to reduce number of deliveries. Road/ track maintenance. Delivery time restrictions if required (07.00 – 23.00 hrs)
- **Feeding Systems** – Daily inspections of bin stocks to prevent augers running empty. Internal feeders checked twice daily to ensure correct operation. Regular end of cycle maintenance by qualified electrician.
- **Fuel Deliveries** – time restricted (07.00 – 18.00)
- **Alarms Systems** – use of pagers or mobile phones
- **Bird Catching** – catch teams fully trained and advised of need to keep noise to a minimum i.e. no shouting or playing loud music. Crates to be placed carefully on concrete yard prior to house entry. Lorries scheduled to minimise duration of catch. Doors operated for entry and exit of forklift. Lorries parked as close as possible to doors to reduce forklift travel. Screen curtains fitted to Lorries.
- **Clean out Operations** – Litter removal during normal working houses (07.00 – 18.00 hrs). Trailers parked as close as possible to doors to reduce loader travel. Large trailers used to reduce traffic. Washing done during normal working hours (08.00 – 18.00 hrs)
- **Maintenance + Repairs** – During normal working houses (07.00 – 18.00 hrs) excepting emergencies/ breakdown. Routine end of cycle servicing.
- **Set up and Placement** – normal working hours (08.00 hrs – 18.00 hrs)
- **Standby Generator testing** – Test run during normal working hours (08.00 hrs – 18.00 hrs). Generator will be housed in an acoustic jacket, operator will have a maintenance contract with the supplier and will be serviced twice a year.

The NMP will be reviewed annually and/or after an Environment Agency substantiated complaint is received.

4.6.1 Conclusions

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.

The Applicant will be required to operate the Installation in line with the operating techniques set out in the Application supporting documents and the NMP (reference Noise Management Plan, dated 15/08/19). Once the operation of the Installation commences, there is a requirement to review the NMP either following an Environment Agency substantiated complaint, or every 4 years, whichever is sooner. The review will record whether changes to the NMP should be made and make any appropriate changes to the NMP identified by the review.

We are satisfied that, using Best Available Techniques, the specific operational and mitigation measures included in the report, and the Noise Management Plan incorporated into the permit as Operational Techniques, will prevent, or where that is not practicable minimise, noise and vibration and prevent pollution from noise and vibration outside the site.

4.7 Dust and Bioaerosols

The use of Best Available Techniques and good practice will minimise emissions. There are measures included within the Permit (the 'Fugitive Emissions' conditions) to require their use. Condition 3.2.1 'Emissions of substances not controlled by an emission limit' is included in the Permit to prevent such emissions causing pollution. This is used in conjunction with condition 3.2.2 which states that in the event of fugitive emissions causing pollution (as notified by the Environment Agency), the Operator must undertake a review of site activities, provide an emissions management plan and undertake any mitigation recommended as part of that report, once approved in writing with the Environment Agency.

There are no sensitive receptors within 100m of the Installation boundary. This fact, together with good management of the Installation, keeping areas clean from build-up of dust, other measures in place to reduce dust and risk of spillages, such as manure and feed management/delivery procedures, all reduce the potential for emissions impacting the nearest receptors.

Guidance on our website concludes that applicants need to produce and submit a dust and bioaerosol risk assessment with their applications if there are sensitive receptors within 100 metres of their farm, e.g. houses.

Details can be found via the link below:

www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit#air-emissions-dust-and-bioaerosols.

In the guidance mentioned above it states that particulate concentrations fall off rapidly with distance from the emitting source. Additionally, a 2009 Defra study on bioaerosols from Intensive Farms indicated bioaerosols were reduced to background levels within 100m of the site. This is the best available evidence to date.

We are satisfied that the measures outlined in the Application and the risk assessment will prevent and where that is not practicable minimise dust and bioaerosol emissions from the Installation and prevent significant pollution or harm to human health.

4.8 Biomass boilers

The installation was previously permitted to have 4 biomass boilers on site with an aggregated thermal rated input of 4.56 MW. There will now be 1 biomass boiler on the installation with a net rated thermal input of 1.945 MW.

The previous variation (V002) includes our assessment for biomass boilers and the operator's proposals were acceptable. The net rated thermal input has reduced under this variation and as such, is classed as an environmental improvement. However, for clarity, we have included the text below to explain how our assessments are undertaken for biomass boilers.

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

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the 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
    C. 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;
    D. 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 biomass boiler.

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.

The permit ensures Medium Combustion Plant Directive (MCPD) compliance for this boiler as the thermal input capacity of the unit is greater than 1 MW.

Emission limits are required in the permit for MCPD compliance for the new boiler.
The emission limits are linked to dust (50 mg/m3) and Oxides of Nitrogen (500 mg/m3) for a biomass boiler between 1 and 5 MW thermal input capacity. This is in compliance with MCPD Annex II Part 2 criteria for new boilers utilising solid biomass as fuel.

https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32015L2193&from=EN

4.9 Site Drainage

4.9.1 Description and risk assessment

An assessment of the site drainage, including the risk to groundwater and surface water from potential pollutants from the Installation, has been undertaken because the positioning of the poultry housing had changed from what was permitted under the extant permit meaning draining routes have changed.

The Operator is required to comply with its management systems by condition 1.1 of the Permit. Further, it is required to comply with measures as detailed in section 3.2, EPR 6.09 'How to comply with your environmental permit for intensive farming', version 2 (through permit condition 3.2, see below for further information) and specifically the section entitled 'Appropriate measures for preventing and minimising fugitive emissions, Management of drainage systems and run-off'. This states:

> *'roof water from systems with high efflux velocity roof fans (i.e. above 5m s-1) does not require interception and treatment provided roofs remain clean with no visible signs of dust.'*

Roof water from the poultry houses is considered to be clean, as the ventilation is by means of high velocity roof extraction fans, with an efflux velocity of at least 11.3 m/s. In addition, the measures proposed by the Applicant in its management systems include regular building inspections, site maintenance and procedures to keep the buildings clean and ensure equipment functionality.

Dirty wash water is collected via the concrete apron to a drain with a diverter valve to underground tanks and spread on the operators own land. Uncontaminated yard water is sent via the concrete apron to an attenuation pond where clean water is discharged to a ditch. Clean roof water drains to French drains which run alongside the houses, and any excess water is discharged to the attenuation pond. The attenuation pond discharges to a ditch north of the site and ultimately drains to the River Til.

The Permit will ensure (via the management condition, 1.1) that the Operator keeps these areas clean to minimise potential pollution.

During clean out of the poultry houses where the concreted yard may become contaminated, diverter valves switch the drainage from the yard area to channel it to an underground dirty water collection tank to ensure no polluted water enters the clean water drainage system. The collection tank will be built to conform to specifications in EPR6.09 'How to comply with your environmental permit for intensive farming', and specifically to meet the requirements of The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010. All wash water inside the poultry houses goes straight in to the dirty water drainage system and on to the dirty water collection tank. Areas where the used litter is removed at the end of each cycle from the houses and loaded on to trailers are concreted with drainage going to the underground water collection tank. The dirty water is removed from the collection tank by means of a vacuum tanker and spread to land under the control of a separate farming business.

Other sources of potential pollution from fugitive emissions have been assessed, such as dust from feed silos and transfer. Measures to prevent or minimise emissions are considered to be satisfactory. Potential pollutants such as chemicals stored on site, fuel storage and carcass storage have sufficient measures in place for containment, as assessed against the requirements of section 3.2 of EPR 6.09 'How to Comply with your environmental permit for intensive farming', version 2. Fuels stored on site include; Gas, Red diesel, kerosene and straw. Spent disinfectants from the footbaths will be disposed of with the dirty water. There is a wheel wash on site and washing will be undertaken on the impermeable surface (concrete apron) near house 1, with any spent disinfectant contained within the yard area, washed down and directed to the dirty water collection tanks.

In addition, permit conditions 3.2.1 and 3.2.2 within condition 3.2 'Emissions of substances not controlled by emission limits' state the following:

6.1.1 Emissions of substances not controlled by emission limits shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

6.1.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits; and

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

The measures in place in the Operator's management systems are considered sufficient to ensure that any contaminated water will be contained, and potentially lightly contaminated water has sufficient mitigation in place. The Permit requires that the Operator complies with its written management system at all times. Consequently, we are satisfied that no pollution of groundwater or surface water from buildings and yards should occur as a result of operations at the Installation.

4.9.2 Groundwater and soil monitoring

IED requires that new permits contain appropriate measures relating to protection of soil, groundwater and groundwater monitoring. This was considered under application A001 and then reconsidered under variation V002 as the site boundary changed under this variation. This does not apply to this variation (V003), however, we have included the following text to demonstrate how it was previously assessed:

The Environment Agency's H5 Guidance states that it is only necessary (i.e. an appropriate measure) 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
- 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
- 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 the Installation (revised version dated January 2017, in support of the Application V002) demonstrates that the land has solely been used for agricultural purposes and the likelihood of historic contamination is low.

Therefore, we accept that the Applicant need not provide baseline reference data for the soil and groundwater at the site at this stage.

4.9.3 Conclusion

We conclude that the information provided with the Application (detailed in sections 4.9.1 and 4.9.2 above) indicates that the potential risk to groundwater and surface water from the Installation is not significant. In addition, we are satisfied that the site complies with best practice and that no pollution of groundwater and surface water should occur as a result of operations at the Installation. We are satisfied that, the measures in place are BAT (where relevant); the manner in which operations are carried out on the Installation will result in no significant pollution; and that we have sufficient controls within the permit conditions to enable further measures to be implemented should these be required.

4.10 Pests

“Pests” refers to birds, vermin and insects.

This application is to vary the extant permit and reduce the number of birds permitted on the installation at any one time, therefore the risk of pests on site is reduced.

The Applicant’s proposed measures to prevent or minimise the presence of pests on site are as follows:

At depletion, litter is will be removed from site and used on operator controlled land with some surplus being sold.

Carcasses placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors. Frequent collection by approved renderer.

Feed delivered into sealed vermin proof silos.

Feed spillages cleared up promptly. Specialist contractor used to control pests.

Pest control contract will be in place using a specialist contractor. Appropriate actions will be put into place to prevent and control flies should a nuisance arise.

Following cleaning all equipment will be stored securely with fan exhausts and ventilation shafts being covered to keep out pests.

Fly problems in the poultry industry are mainly associated with deep pit litter systems allowing the flies to breed in damp conditions, whereas this is not considered to be a deep pit litter system as the measures in place are to remaining litter dry and friable which will prevent this.

Condition 3.6 of the Permit also ensures that pests are adequately dealt with at the Installation. It reads as follows:

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

The Applicant was not required to submit a Pest Management Plan with the Application, and we consider the presence of pests on the Installation to be a low risk therefore did not request one, however permit condition 3.6 (detailed above) requires the Operator to provide one should we require this.

The Environment Agency is therefore satisfied that sufficient measures are in place to prevent or minimise the presence of pests on site.

5. Other Considerations

5.1 Operator competence

We have previously assessed operator competence under application A001 and nothing in this variation or that has happened since affects that assessment. However, for information, we have included a summary of how this was assessed below:

We must not grant a permit to an applicant where we consider they will not operate the installation or will not do so in accordance with a permit. In determining whether this may be the case, we consider whether an applicant: can demonstrate technical competence, has suitable management systems, has any relevant convictions and is financially competent, as stated in Defra Core Guidance and our Guidance RGN 5 ‘Operator Competence’.

Operation of an intensive farming installation does not require compliance with an approved scheme to demonstrate technical competence (as would be the case for example for a waste operation). Instead an operator demonstrates technical competence by way of their management system that staff training and development requirements are met, along with provision for keeping up-to-date with technical and legislative changes. In this case we are satisfied with the Applicant’s management systems. Permit condition 1.1 also ensures that these management systems are followed so that the Operator remains ‘competent’ throughout the life of the Permit.

An applicant’s compliance record includes a review of relevant convictions and can take into account any known breaches of other regulatory regimes. The provisions of the Rehabilitation of Offenders Act 1974 require convictions of individuals to be considered spent after a prescribed period and we treat corporate operators in the same way. In this case no relevant convictions were identified for the Applicant.

Financial competence is initially based on whether an applicant has any current or past insolvency and bankruptcy proceedings. We are not aware of any such proceedings against this Applicant.

The operator competence checks have therefore been carried out in line with our guidance (RGN 5) and we are satisfied that the Operator meets the requirements.

The Operator is required to operate the Installation in accordance with an Environmental Management System (EMS) under condition 1.1 of the Permit. The Operator commits to the operating techniques as described in the Application and as incorporated into the Permit in condition 2.3.1 and associated Table S1.2. Any deviation from either of these would be a breach of the Permit, and action would be taken in accordance with our enforcement and sanctions statement and guidance.

We are also satisfied that the Applicant is the legal entity that will have control over the operation of the Installation after the grant of the Permit. The decision was taken in accordance with EPR RGN 1 ‘Understanding the meaning of operator’.

5.2 Other legal requirements

In this section we explain how we have addressed other relevant legal requirements, to the extent that we have not addressed them elsewhere in this document.

5.2.1 Schedules 1 and 7 to the Permitting Regulations – IED

We address the requirements of the IED in the body of this document above.

One requirement not addressed above is that contained in Article 5(3) IED. This requires that "In the case of a new installation or a substantial change where Article 4 of Directive 85/337/EC (now Directive 2011/92/EU) (the EIA Directive) applies, any relevant information obtained or conclusion arrived at pursuant to articles 5, 6 and 7 of that Directive shall be examined and used for the purposes of granting the permit."

- Article 5 of the EIA Directive relates to the obligation on developers to supply the information set out in Annex IV of that Directive when making an application for development consent.
- Article 6(1) requires Member States to ensure that the authorities likely to be concerned by a development by reason of their specific environmental responsibilities are consulted on the Environmental Statement and the request for development consent.
- Articles 6(2)-6(6) make provision for public consultation on applications for development consent.
- Article 7 relates to projects with transboundary effects and consequential obligations to consult with affected Member States.

The grant or refusal of development consent is a matter for the relevant local planning authority. The Environment Agency's obligation is therefore only to examine and use any relevant information obtained or conclusion arrived at by the local planning authorities pursuant to those EIA Directive Articles.

In this case the Applicant has made an application for planning permission, however the planning consultation has been extended to 31/12/19 and therefore there is no relevant information from the planning process for the Environment Agency to consider. However, the Environment Agency has taken into account information provided through the Application concerning potential risks to the environment posed by the Installation. The measures imposed by the Permit ensure that those risks are mitigated such that the Installation does not risk an unacceptable level of pollution.

5.2.2 Schedule 22 to the Permitting Regulations – Water Framework and Groundwater Directives

To the extent that it might lead to a discharge of pollutants to groundwater (a "groundwater activity" under the EPR 2016), the Permit is subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit requires the taking of all necessary measures to prevent the input of any hazardous substances to groundwater, and to limit the input of non-hazardous pollutants into groundwater so as to ensure such pollutants do not cause pollution, and satisfies the requirements of Schedule 22. This variation does not change this requirement.

The Permit also requires material storage areas to be designed and maintained to a high standard to prevent accidental releases.

5.2.3 Directive 2003/35/EC – The Public Participation Directive

Regulation 59 of the Permitting Regulations requires the Environment Agency to prepare and publish a statement of its policies for complying with its public participation duties. We have published our public participation statement.

This Application has been consulted upon in line with this statement. This satisfies the requirements of the Public Participation Directive. Our draft decision in this case has been reached following a programme of extended public consultation, both on this variation Application and later, separately, on the Permit and a draft decision document.

5.2.4 Environment Act 1995

(i) Section 4 (Pursuit of Sustainable Development)

We are required to contribute towards achieving sustainable development, as considered appropriate by Ministers and set out in guidance issued to us. The Secretary of State for Environment, Food and Rural Affairs has issued The Environment Agency's Objectives and Contribution to Sustainable Development: Statutory Guidance (December 2002). This document:

> *provides guidance to the Agency on such matters as the formulation of approaches that the Agency should take to its work, decisions about priorities for the Agency and the allocation of resources. It is not directly applicable to individual regulatory decisions of the Agency*

In respect of regulation of industrial pollution through the Permitting Regulations, the Guidance refers in particular to the objective of setting permit conditions "in a consistent and proportionate fashion based on Best Available Techniques and taking into account all relevant matters…" The Environment Agency considers that it has pursued the objectives set out in the Government's guidance, where relevant, and that there are no additional conditions that should be included in this Variation to take account of the Section 4 duty.

(ii) Section 5 (Preventing or Minimising Effects of Pollution of the Environment)

We are satisfied that our pollution control powers have been exercised for the purpose of preventing or minimising, remedying or mitigating the effects of pollution.

(iii) Section 6(1) (Conservation Duties with Regard to Water)

We have a duty to the extent we consider it desirable generally to promote the conservation and enhancement of the natural beauty and amenity of inland and coastal waters and the land associated with such waters, and the conservation of flora and fauna which are dependent on an aquatic environment.

We consider that no additional or different conditions are appropriate for this Variation to fulfil these duties.

(iv) Section 6(6) (Fisheries)

We have a duty to maintain, improve and develop fisheries of salmon, trout, eels, lampreys, smelt and freshwater fish.

We consider that no additional or different conditions are appropriate for this variation to fulfil these duties.

(v) Section 7 (Pursuit of Conservation Objectives)

This places a duty on us, when considering any proposal relating to our functions, to have regard amongst other things to any effect which the proposals would have on sites of archaeological, architectural, or historic interest; the economic and social well-being of local communities in rural areas;

and to take into account any effect which the proposals would have on the natural beauty or amenity of any rural area.

We considered whether we should impose any additional or different requirements in terms of our duty to have regard to the various conservation objectives set out in Section 7, but concluded that we should not.

(vi) Section 39 (Costs and Benefits)

We have a duty to take into account the likely costs and benefits of our decision ('costs' being defined as including costs to the environment as well as any person). This duty, however, does not affect our obligation to discharge any duties imposed upon us in other legislative provisions.

In so far as relevant we consider that the costs that the variation may impose on the Applicant are reasonable and proportionate in terms of the benefits it provides.

(vii) Section 81 (National Air Quality Strategy)

We have had regard to the National Air Quality Strategy and consider that our decision complies with the Strategy, and that no additional or different conditions are appropriate for this variation.

5.2.5 Human Rights Act 1998

We have considered potential interference with rights addressed by the European Convention on Human Rights in reaching our decision and consider that our decision is compatible with our duties under the Human Rights Act 1998. In particular, we have considered the right to life (Article 2), the right to a fair trial (Article 6), the right to respect for private and family life (Article 8) and the right to protection of property (Article 1, First Protocol). We do not believe that Convention rights are engaged in relation to this determination.

5.2.6 Countryside and Rights of Way Act 2000

Section 85 of this Act imposes a duty on Environment Agency to have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty (AONB). There is no AONB which could be affected by the Installation.

5.2.7 Wildlife and Countryside Act 1981

Under section 28G of the Wildlife and Countryside Act 1981 the Environment Agency has a duty to take reasonable steps to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which a site is of special scientific interest. Under section 28I the Environment Agency has a duty to consult Natural England in relation to any permit that is likely to damage SSSIs.

We assessed the Application and concluded that the Installation will not damage the special features of any SSSI. This assessment is summarised in greater detail in section 4.1 of this document.

5.2.8 Natural Environment and Rural Communities Act 2006

Section 40 of this Act requires us to have regard, so far as is consistent with the proper exercise of our functions, to the purpose of conserving biodiversity. We have done so and consider that no different or additional conditions in the variation are required.

5.2.9 Deregulation Act 2015

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 the variation.
Paragraph 1.3 of the guidance says:

> *"The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation."*

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in the Permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This ensures that environmental impacts from the Installation will not adversely affect the growth of local businesses. It 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.

5.2.10 Conservation of Habitats and Species Regulations 2010

We have assessed the Application in accordance with guidance agreed jointly with Natural England and concluded that there will be no likely significant effect on any SAC, SPA or Ramsar site (as there are no sites within the relevant screening threshold of the installation boundary, please see section 4.1).

In accordance with our operational instructions we did not consult Natural England, but sent them a Habitats Regulations Assessment (HRA) for information.

The habitat assessment is summarised in greater detail in section 4.1 of this document. A copy of the HRA can be found on the public register.

Annex 1: Consultation, web publicising and newspaper advertising responses

Advertising and Consultation on the Application

The Application has been advertised and consulted upon in accordance with the Environment Agency's Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of all consultation responses have been placed on the Environment Agency public register.

The Application was advertised on the Environment Agency website from 10 January 2019 – 7 February 2019 and in the Northamptonshire Telegraph and the Bedford Times & Citizen on 10 January 2019. Copies of the Application were placed on our public register at the Environment Agency's offices at Brampton Office, Bramholme Lane, Brampton, Huntingdon, Cambridgeshire, PE28 4NE. Additionally, we also published this Application on our web pages on GOV.UK and made available electronic copies of the Application on the webpage.

The following statutory and non-statutory bodies were consulted:

- Health and Safety Executive (HSE)
- Local Authorities East Northamptonshire Council and Bedford Borough Council

No response was received.

We have also notified the following bodies of the application:

Parish Councils and surrounding parish councils in the area

Wymington Parish Council

Rushden Town Council

Higham Ferrers Parish Council

Knotting and Souldrop Parish Council

Newton Bromswold Parish Council

Riseley Parish Council

Chelveston -Cum – Caldercott

Caldecott

Podington Parish Council

Melchbourne & Yeldon Parish Council

Swineshead & Pertenhall Parish Council

Sharnbrook Parish Council

MP's

Tom Pursglove (MP for Corby & East Northamptonshire)

Peter Bone (MP for Wellingborough)

Alistair Burt (MP for North East Bedfordshire)

1) Consultation Responses from Statutory and Non-Statutory Bodies

No responses were received.

2) Consultation Responses from Members of the Public and Community Organisations/ County/ Parish/ District Counsellors

The consultation responses received were wide ranging and a number of the issues raised were outside the Environment Agency's remit in reaching its permitting decisions. Specifically questions were raised which fall within the jurisdiction of the planning system.

Guidance on the interaction between planning and pollution control is given in the National Planning Policy Framework. It says that the planning and pollution control systems are separate but complementary. We are only able to take into account those issues, which call within the scope of our regulatory powers.

a) Representations from Town Councils

Response received from
Higham Ferrers Town Council (Received 30/01/19)
Brief summary of issues raised
This council was unaware of the original permit application and consultation for the installation and was unable to comment on the site. Concern is raised regarding the level of emissions from the installation and the pollution to the environment.
Summary of actions taken or show how this has been covered
There was no requirement to consult the council on the original application. The site has subsequently been identified as being of high public interest and so we have undertaken enhanced consultation on this variation application. The emissions from the installation have been considered previously and the changes are addressed in the main body of this document and we are satisfied that the permit as varied will not cause significant pollution of the environment or harm to human health and will have less impact that the original proposals

Response received from
Rushden Town Council (Received 07/02/19)
Brief summary of issues raised
The original permit for this proposed site was granted for a site in Knotting, Bedfordshire. Therefore as the application for a variation is for a new site in Northamptonshire we feel a new application needs to be submitted and full consultation needs to be carried out with the residents of Northamptonshire. Concerns were raised on the following points:- **1. Impact on human health** a) The impact on human health ammonia pollution and the direct and indirect effects on the local environment and its inhabitants.

b) The proposal includes a straw burning biomass system which will further release particles and gases into the atmosphere, compounding the formation of PM2.5 pollution.

c) Vehicle traffic to and from the site will create further pollution.

2. Odour

a) We have concerns about odour from the site.

b) The odour effect from this proposal will be cumulative to the effect already being experienced from the Biogen plant.

3. Noise

As well as noise pollution from the plant itself there will be a high volume of vehicle movements peaking during the "catching" phase of HGV double journeys 24/7 every 39 day cycle. From the proposal, these vehicle movements will be at night. Given that local residents can already hear the Biogen plant in the background during operation, this development will be closer and there is no doubt that the noise levels from this proposal will compound the existing background noise and will be clearly audible during the Catching phase of the processing cycle.

4. Water/sewage

Rushden Town Council considers that not enough information has been provided to show a solution to these matters Should measures prove to be ineffective, or fail after the site is operational, environmental damage will be potentially severe and it will be difficult to measure, mitigate and inforce.

5. Light pollution

The proposed installation would operate on a continuous basis. No reference to potential light pollution can be found in the submission. Currently the proposed site has the benefit low light pollution levels. This is a rare and highly positive aspect of the area for walkers, night sky observers and most importantly wildlife. All of which would be severely compromised by the proposed lighting for this scheme.

Summary of actions taken or show how this has been covered

The operator has not changed the location of the site. The original address was incorrect and did not reflect the accurate location. This has now been amended. However, the relevant authoritative bodies were consulted on the application and supporting documents at the time which included a site location plan showing the correct location.

We (correctly) consulted with Northamptonshire County Council in May 2016 when the operator first applied for the permit. No comments were received. The application was also advertised online, however no comments were received from the public.

Under variation V002, part of the application was to extend the site boundary to the north of the site and update the site address. We consulted with Bedford Borough Council in January 2017, as per our normal working practices. The application was also advertised online, however no comments were received from the public.

We notified East Northamptonshire Council in November 2017 who responded the same month concluding that (they) had already reviewed and commented on the variation, by default, when considering the planning application and had no further comments to make in this respect. No comments were received that would have affected our decision to issue the variation.

We are treating this variation application as a site of high public interested and are therefore carrying out extra consultation.

The operator has submitted planning permission to the local planning authority.

1. Impact on human health

a) We did not consult with PHE under variation application V003 as the application was to reduce bird numbers stocked on the installation and they had been consulted on the original application and the previous variation that increased bird numbers to those currently proposed. We carefully assessed the health impacts and considered the advice from PHE, who are the authority in matters relating to public health at those higher bird numbers and are satisfied this variation does not require further consultation as the proposal will reduce any potential health impacts when compared to what is currently permitted.

The application is to reduce bird numbers, so any effect on the local environment will be reduced For further discussion on the impacts to the local environment (not including humans), see sections 4.1(Ammonia Emissions – Ecological Receptors), 4.3 (BAT Conclusions), 4.8 (Biomass Boilers), 4.9 (Site Drainage), 4.10 (Pests) and 4.1 (Other Legal Requirements).

We conclude that ammonia from the Installation is unlikely to have a significant health impact on human receptors, given the conditions imposed by the Permit.

b) The boiler will not pose a significant risk to the environment or human health. See 'Biomass Boilers' section of this document for further information. Section 4.7 Dust and Bioaerosols addresses controls of dust which includes particulate matter.

c) The local planning authority is responsible for determining land use through the planning application process, this includes transport. Consideration of increased traffic movements beyond the Installation boundary is outside our remit.

The impacts of the site on local communities has been considered and have concluded that the activities at the Installation do not have an unacceptable impact on the local environment or human health.

2. Odour

a) We have previously assessed odour risk at the installation and were satisfied that there would not be any significant pollution of the environment or harm to human health from odour. This application is to vary the extant permit by reducing the maximum number of birds permitted at the installation, therefore the risk of odour nuisance is reduced with this variation.

The Operator must comply with their Odour Management Plan. We have assessed these measures and have determined they represent best available techniques for this activity. A range of mitigation measures have also been proposed and these can be found within the odour management plan. These measures are stated operation techniques in a variety of documents provided by the Applicant and captured through condition 2.3 and Table S1.2 of the Permit. Furthermore, condition 3.3 of the Permit applies to substances not controlled by emission limits, also known as fugitive emissions. The Operator will be required to manage their activities so that they shall not cause pollution.

We are satisfied that there will not be any significant pollution of the environment or harm to human health from odour.

B) The Environment Agency cannot take into account the activities of another site, operated by a different company, and carrying out activities different to that presented in this particular application, when determining whether or not to grant a variation to the environmental permit to Bedfordia Farms Limited for an intensive poultry site. We do not assess odour impact in combination with other sources.

3. Noise

4. Water/sewage

Details of surface water management, both from water originating from the buildings, and yard run off is discussed in detail in the sections titled Description of the installation and under Site Drainage in Table 2 Key Features of the installation of this document.

With regards to surface water flooding, surface water (including Sustainable Drainage System (SuDS) is dealt with by the Lead Local Flood Authority (LLFA) – Overall given the low risk of fluvial flooding to the site, and the scale

and nature of the proposed development, we would expect the LLFA to lead on and approve the detailed surface water drainage design. Flooding from surface water is caused when rainfall cannot soak away because the ground is fully saturated or drainage systems are full. Flood risk from surface water is managed by Northamptonshire County Council (some responsibilities may be delegated to the district councils) – their responsibilities extend to surface water, groundwater, and ordinary watercourses (smaller rivers, streams and ditches). Whilst the EA and local authority each have their responsibilities these are complimentary rather than contradictory.

However, we are satisfied that only uncontaminated surface water/roof water run-off will be discharged which will have no significant effect on the River Til and therefore we do not require water quality testing in the receiving watercourse

There will be no contaminated run off as broilers are kept indoors on an impermeable concrete floor with sealed drainage. During clean out operations, dirty wash water is collected via the concrete apron to a drain with a diverter valve to underground tanks and spread on the operators own land.

The dirty water collection tank is considered to be of sufficient size to contain contaminated wash water during times of clean out, including any contaminated yard surface water during times of excess rainfall. It will be visually inspected to ensure it does not overflow, and can be emptied by tanker and/or clean out operations can be stopped should it be necessary.

The Drainage set up is set out in Table S3.2 of the permit.

The site of this development is not within a Flood Zone, which means that land and property have a low probability of fluvial flooding.

Details of surface water management proposed in this application, from water originating from the buildings is discussed in detail in the section above titled Site Drainage and in sections 4.9, 4.9.1 and 4.9.2 of this document.

We are satisfied that the appropriate measures will be in place to minimise the impact and consider that the Application will have no likely significant effect.

5. Light pollution

Light pollution is primarily a visual amenity issue and should be considered by the relevant planning authority

b) Representations from individual members of the public

Brief summary of issues raised:	Summary of action taken / how this has been covered
Comments about initial permit issue	
Concerns raised that the public could not comment on the initial permit issue because the application was consulted on under the wrong county using the wrong site address.	We (correctly) consulted with Northamptonshire County Council in May 2016 when the operator first applied for the permit. No comments were received. The application was also advertised online, however no comments were received from the public. Under variation V002 the operator applied to increase permitted bird numbers on site from 360,000 to 540,000, increase to 10 houses from 8, extend the site boundary and add an additional 2 biomass boilers, increasing the aggregate thermal input from 2.294 MWth to 4.59MWth. The operator also corrected the site address to more accurately reflect the location of the installation. However, regardless of this, previous information was not misleading in the location of the site and relevant authoritative bodies were made aware of the application at the time

	We consulted with Bedford Borough Council in January 2017, as per our normal working practices. The application was also advertised online, however no comments were received from the public. We notified East Northamptonshire Council in November 2017 who responded the same month concluding that (they) had already reviewed and commented on the variation, by default, when considering the planning application and had no further comments to make in this respect. No comments were received that would have affected our decision to issue the variation. This variation is to reduce the permitted number of broilers on site at any one time from 540,000 to 320,000. The number of poultry houses is reduced from 10 to 6. The installation was previously permitted to have 4 biomass boilers on site with an aggregated thermal rated input of 4.56 MW. There will now be 1 biomass boiler on the installation with a net rated thermal input of 1.945 MW. We are treating this variation application as a site of high public interested and are therefore carrying out a full consultation on the variation
Comments about planning	
Concerns have been raised that irregularities in regulatory requirements and technical standards have been highlighted and outlined in objections placed with the local authority in the planning approval process but these were not addressed	This is a matter for the planning authority.
Concerns have been raised that the physical presence of the installation, pollutants, traffic and light pollution would have a negative impact on easily disturbed local wildlife and human receptors.	The local planning authority is responsible for determining land use through the planning application process, this includes transport. Consideration of increased traffic movements beyond the Installation boundary does not form part of our determination of the Application. Emissions to air, land and water from the proposed development have been assessed against all known sensitive receptors. We consider that the Application will have no likely significant effect. Furthermore, the Permit will regulate emissions such that there will be no significant levels of pollution from the Installation. The Environment Agency regulates emissions form the activity and does not consider that these will have a negative impact on wildlife or human receptors.
Comments about location, aesthetics and scale of operation	
Concerns have been raised about impacts on users of the footpath that runs adjacent to the site. Additionally, concern the installation is on Grade 2 land.	We are satisfied that footpath users will not experience significant pollution or harm to human health. Grade 2 land use is a matter for the planning authority
Concerns have been raised about the visual impact of the installation.	Visual impact is an issue for the planning authority.

Concerns have been raised that the size and scale of the installation is inappropriate.	We are satisfied that the Applicant is technically competent and will have appropriate management systems in place to operate a facility of this size and scale in compliance with the conditions of the Environment Permit without causing significant pollution of the environment or harm to human health.
Concerns have been raised that the impact from noise and odour will impact Nene Valley and the 3000 properties that are due to be built	The local planning authority is responsible for determining land use through the planning application process, this includes for areas of land that do not form part of the installation. As discussed in section 4.5 and 4.7 of this document, the Environment Agency is satisfied following a review of the information provided by the Applicant, including their odour management plan and their noise management plan, and the conditions present within the permit, that odour and noise from the Installation does not pose an unacceptable risk of pollution outside the installation and so this would include any new development.
Comments about the Operator/ Operator competence	
Concerns have been raised that the supporting documents to the application are inaccurate:	Where we have deemed the Applicant has submitted incorrect, unclear or contradictory information, we have challenged them to provide clarity and produce amended documentation, where necessary.
It has been raised that the operator has been served an abatement notice in respect to a pig operation and has been fined by the courts for pollution of a river due to a large quantity of digestate from an aerobic digester.	We have spoken to Bedford Borough Council and can confirm that they served an abatement notice on Bedfordia Farms Ltd and the notice was unsuccessfully appealed by the company. Bedford Borough Council did not take a prosecution against Bedfordia Farms Ltd and is not considered a relevant offence. The operator has received a formal caution in relation to activities at another site where a pollution incident was caused by the failure of a valve in the pipework from an AD plant, resulting in digestate entering the local watercourse. Following on from the formal caution, the operator updated their procedures and inspection of pipework and incident management to prevent a reoccurrence. We are satisfied that the Applicant is technically competent and will have appropriate management systems in place to operate the facility in compliance with the conditions of the Environment Permit.
It has been raised that the neighbouring AD plant is associated with the directors of the installation application	We are satisfied that the Applicant is technically competent and will have appropriate management systems in place to operate the facility in compliance with the conditions of the Environment Permit. https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits

Concerns have been raised that it is not clear whether the operator complies with BAT as the operator claims measures are 'in place' although no facility exists.	In the event that the facility is built and becomes operational we are satisfied that the operating techniques proposed and required by the permit are BAT. Clearly measures cannot be put in place until a permit has been issued and the facility built but the permit controls what those measures will be if this happens. The Operator is required to comply in all respects with the Permit.
Comments about site drainage/ surface water run off/ flooding	
Concerns over potential flooding from the installation and potential pollution from this. Queries have been raised as to what measures are taken to record the water quality in the stream.	Details of surface water management, both from water originating from the buildings, and yard run off is discussed in detail in sections 3.3 and 4.9 of this document. We are satisfied that only uncontaminated surface water/roof water run-off will be discharged which will have no significant effect on the River Til and therefore we do not require water quality testing in the receiving watercourse There will be no contaminated run off as broilers are kept indoors on an impermeable concrete floor with sealed drainage. During clean out operations, dirty wash water is collected via the concrete apron to a drain with a diverter valve to underground tanks and spread on the operators own land. The dirty water collection tank is considered to be of sufficient size to contain contaminated wash water during times of clean out, including any contaminated yard surface water during times of excess rainfall. It will be visually inspected to ensure it does not overflow, and can be emptied by tanker and/or clean out operations can be stopped should it be necessary. The Drainage set up is set out in Table S3.2 of the permit. The site of this development is not within a Flood Zone, which means that land and property have a low probability of fluvial flooding. Details of surface water management proposed in this application, from water originating from the buildings is discussed in detail in the section above titled Site Drainage of this document. Flood risk will also be a consideration for the Local Planning Authority. We are satisfied that the appropriate measures will be in place to control run off from the installation. We consider that emissions of water will have no likely significant effect on either surface or ground water or the wider environment. Monitoring of the stream is not considered necessary or appropriate.
Concerns have been raised that roof water and yard water may be contaminated by vehicles. Can the EA be sure that there will be no pollution to the River Til, the offsite ditch, or local wildlife?	The design of the wheel wash at the site entrance willpests m prevent any entry of contaminated matter picked up by vehicle wheels into surface or groundwater discharge and minimise any releases. Spent disinfectants from the wheel wash are disposed of with the dirty water. Dirty wash water is collected via the concrete apron to a drain with a diverter valve to underground tanks. The operator is required to keep all roofs clean with no visible

	signs of dust. Table S1.2 of the permit requires the operator to comply with the relevant supporting documents, in this case the OMP containing these mitigation measures. See section 4.9 Site Drainage for further details. Of our assessment. We are satisfied that the appropriate measures will be in place to prevent pollution of surface water and ground water as well as local wildlife.
Comments about pollution to land and water	
Concerns have been raised that the amount of waste produced from the installation cannot be managed by land spreading, resulting in negative environmental impacts to the surrounding land and water.	The proposed variation will reduce the amount of waste from the installation. Condition 2.3.5 of the Permit already requires that the Operator shall take appropriate measures in disposal or recovery of solid manure or slurry to prevent, or where this is not practicable to minimise pollution.
Comments about manure	
Concerns have been raised that it is unclear where manure for spreading will be stored and for how long for and how spreading will be achieved and whether it will be spread throughout the year and how excess manure that cannot be spread will be handled. Concerns have been raised that storing manure in close proximity to residential receptors and spread on fields close to residential receptors is not environmentally friendly and can attract pests.	It is important to note that the spreading of manure is normal farming practice. As the Code of Good Agricultural Practice (CoGAP) states, it is the most economic and environmentally friendly way of dealing with livestock manures At depletion the litter is removed from the site and used on operator controlled land as fertiliser in accordance with a manure management plan in accordance with the Code of Good Agricultural Practice, with some surplus being sold with tonnages and destinations recorded. The installation is located in a Nitrate Vulnerable Zone (NVZ) so will not be permitted to spread during closed periods. No manure is stored on site. Condition 2.3.5 of the Permit states that the Operator shall take appropriate measures in disposal or recovery of solid manure or slurry to prevent, or where this is not practicable to minimise pollution. The supporting document 'Technical standards' (dated 24/04/16) states that contingency plans are in place with surrounding farms to accept the manure in case of an emergency.
Comments about human health	
Concerns have been raised that human health could be damaged, including people with existing health conditions and the NHS would be impacted.	We did not formally consult with PHE under variation application V003 as the application was to reduce bird numbers stocked on the installation. PHE were consulted on the previous application for higher bird numbers than now proposed in this variation. Their advice was that compliance with the legislation, together with good management, should ensure that the site will present a low risk to local human receptors. We are satisfied that the facility will be operated

	using BAT We are satisfied that the appropriate measures will be in place and that there will not be any significant pollution of the environment or harm to human health from emissions and so there would not be any impact upon the National Health Service.
Concerns have been raised that if the wind direction is not from the SW, dust may land in Rushden thus increasing the risk of respiratory problems in the population.	Regardless of wind direction, the impacts of the site on local communities has been considered and have concluded that the activities at the Installation do not have an unacceptable impact on the local environment or human health. We are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise dust.
Concerns have been raised for public health over the use of antibiotics used on poultry as the antibiotics will find their way into the environment via soil and water and through high levels of ammonia in the air and water	Antibiotic use is primarily an animal welfare issue. The principal regulator for animal health is the Animal and Plant Health agency (APHA). We consulted Public Health England (PHE) and the Director of Public Health– under application V002 in line with our guidance. Public Health England and the Director of Public Health did not raise any concerns with regard to the use of antibiotics and their effect on the environment. We are satisfied that appropriate measures are in place to prevent or where that is not practicable minimise emissions to all media. This variation should result in a reduction of antibiotic use.
Concerns have been raised that air quality will reduce when an anticyclone is positioned over the UK	The variation will reduce impacts on air quality from previous levels that were considered acceptable in all weather conditions.
Concerns have been raised about dust and dangerous particles on human health.	Please see section 4.7 Dust and Bioaerosols which has considered the effect of these on human receptors. We have consulted Public Health England (PHE) and the Director of Public Health (Bedford) under variation application V002 in line with our guidance. Public Health England and the Director of Public Health did not raise any concerns regarding dust and other particulate matter and their impact on human health at higher stocking levels. This variation will reduce any impacts. We are satisfied that the measures outlined in the Application and the risk assessment will prevent and where that is not practicable minimise dust and bioaerosol emissions from the Installation and prevent significant pollution or harm to human health.
Comments about flies and pests	

Concerns have been raised that there is no management plan to control vermin. Concerns have been raised the flies and pests (such as rats) will be attracted to the installation and straw used for boilers will contain vermin Concerns have been raised that there are 3000 new properties due to be built near the installation and the installation will attract vermin which will not benefit new residents.	Based on the information in the application under variation V002, we are satisfied that appropriate measures will be in place to prevent and/or minimise pests. Section 4.10 of this document records in detail the measures proposed to prevent or minimise the presence of pests on site. The Applicants have also proposed appropriate measures for carcass management in OMP (dated 31/07/19) Carcasses will be placed into plastic sealed bags, stored in sealed, shaded and vermin proof containers away from sensitive receptors awaiting incineration in a licensed incinerator. The incinerator is to be operated as per manufacturer's guidance. Regular servicing and recording of burn temperatures will be undertaken as per Animal health license. The Technical Standards document (dated 27/04/16) confirms that 'a pest control contract will be in place using a specialist contractor'. The site will be inspected to ensure compliance with the permit including the condition requiring them to control vermin.
Comments about the effects on habitats and wildlife	
Concerns have been raised that disease will be transmitted to and from wildlife and that distressed broilers will have a negative effect on wildlife and local flora and fauna.	This application is for a reduction in bird numbers, so any potential impact is reduced. However, for clarity: Broilers are housed indoors and have no direct contact with wildlife. The operator has procedures in place to ensure houses are washed down at the end of each cycle. Used litter is collected and removed from site and dirty wash water is sent to dirty water tanks and also removed from site. The installation only discharges clean roof and yard run off via an attenuation pond to the River Til. The supporting document 'Fugitive Emissions' received with application V002 (and dated 20/01/17) identifies zoonosis and notifiable diseases and has the following procedures in place: Detailed biosecurity measures in place Visitor's procedures in place Use of appropriate PPE Tailored terminal hygiene programme Veterinarian health plan The supporting document 'Bedfordia Farm Emergency Plan' received with application V002 (and dated 20/01/17) set out the following contingencies in case disease breaks out amongst the broilers: Contact Company Area Manager Is it a potentially notifiable disease? – contact Vet for advice, and follow advice / instructions Integrator will implement Major Loss Procedures. Furthermore, the principal regulator for animal health is the

	Animal and Plant Health Agency (APHA), whose main purpose is to safeguard animal and plant health for the benefit of people, the environment and the economy. Therefore they have primary responsibility for ensuring the farming industry has measures in place to prevent disease outbreaks or deal effectively with any disease outbreaks on site. We are satisfied that the appropriate measures will be in place to prevent disease being transmitted from the installation to and from wildlife (including flora and fauna).
Concerns have been raised that ammonia will have an effect on surrounding fields and hedgerows.	We consider that the Installation will have no likely significant effect on the surrounding fields and hedges. A thorough explanation of our assessment can be found in sections 4.1 - 4.2 (Ammonia emissions – ecological receptors) of the Key issues part of this document. This variation will reduce ammonia emissions.
Concerns have been raised that the use of antibiotics will cause a loss of wildlife in the area.	It is unclear as to the nature of the concerns raised here. We are satisfied that appropriate measures are in place to prevent or where that is not practicable minimise emissions to all media. This variation should result in a reduction of antibiotic use due to the fact that livestock numbers are reducing. We consulted Public Health England (PHE) and the Director of Public Health – under application V002 - in line with our guidance. Public Health England and the Director of Public Health did not raise any concerns with regard to the use of antibiotics and their effect on the environment. If this concern is relating to antibiotics entering watercourses and groundwater, and hence, affecting wildlife, then site drainage has been addressed in section 4.9. The measures in place in the Operator's management systems are considered sufficient to ensure that any contaminated water will be contained, and potentially lightly contaminated water has sufficient mitigation in place. The Permit requires that the Operator complies with its written management system at all times. Consequently, we are satisfied that no pollution of groundwater or surface water from buildings and yards should occur as a result of operations at the Installation and therefore any antibiotics used will not cause a loss of wildlife in the area.
Comments about vehicles and traffic	
Concerns have been raised about the impacts of additional traffic in the area.	We regulate emissions from within the installation boundary and are satisfied these will not cause significant pollution or harm to human health. Offsite traffic issues will be considered as part of the planning application.
Concerns have been raised that PM 2.5s from traffic and pollution from the installation will have negative impacts on human health, such as from cardiovascular problems.	The local planning authority is responsible for determining land use through the planning application process, this includes transport. Consideration of increased traffic movements beyond the Installation boundary does not form part of our determination of the Application. Furthermore, we have consulted Public Health England (PHE) and the Director of Public Health under application V002 in line with our guidance. Public Health England and the Director of Public Health have

	not raised any concerns with regard to traffic or PM 2.5s associated with the installation having a negative impact on human health. We regulate emissions from within the installation boundary and are satisfied these will not cause significant pollution or harm to human health. Section 4.7 Dust and Bioaerosols addresses controls of dust which includes particulate matter.
Comments about odour impacts	
Concerns raised that there will be odour from the installation.	We are satisfied odour will not cause pollution outside the site boundary. Please see sections 4.5 -4.5.3 for a detailed discussion on our assessment of the odour risk.
Concerns have been raised twice daily olfactory checks need further clarity.	They are required to operate in accordance with the OMP (dated 31/07/19) which states that "Twice daily olfactory perimeter checks by Estate personnel not directly involved in poultry production." An olfactory check is sniff testing. We are satisfied that the appropriate measures will be in place to carry out the olfactory checks in line with the BAT 26 of the BAT conclusions 2017.
Concerns have been raised about the odour from other nearby facilities acting in combination with the odour from the installation.	We do not consider in-combination effects of odour from other sources outside the installation. The applicant has submitted an odour management plan, which we have accepted. Please see sections 4.5 -4.5.3 for a detailed discussion on our assessment of the odour risk. Although there is the potential for odour pollution from the Installation, the operator's compliance with the Permit and its OMP will minimise the risk of odour pollution beyond the Installation boundary. The risk of odour pollution at sensitive receptors beyond the Installation boundary is therefore not considered significant. We are satisfied that operations carried out on the Installation will minimise the risk of pollution from odour.
Comments about noise impacts	
Concerns have been raised that there will be audible nose from the installation and associated activities.	This application is for a reduction in permitted bird numbers at this site and therefore the variation will only result in a reduction of the potential for noise impact. Additionally, based upon the information in the Application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration and to prevent pollution from noise and vibration outside the site and that activities will not give rise to significant pollution or harm to human health. A range of mitigation measures have also been proposed and these can be found within the noise management plan. See Section 4.6 of this document for further details of our assessment.

Concerns about dust	
Concerns have been raised that dust caught by trees and hedges will have a negligible effect on odour and will be detrimental to surrounding trees and hedges	We do not rely on dust being caught in trees as an odour mitigation measure. Planting trees and hedges is an additional mitigation measure that the operator has in place as proposed in the planning application. This measure may reduce dust and odour. Whilst there is potential for odour and dust and bioaerosol 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 these documents when required. We are satisfied that operations carried out on the Installation will minimise the risk of pollution from odour and from dust and bioaerosols and that dust will not be released in quantities what would harm trees and hedges.
Concerns have been raised that the supporting document 'Confirmation of BAT (1)' states that dust from the installation will be "based on the standard emission factor for free range layers (Aviary)".	The supporting document referenced 'Confirmation of BAT' and titled 'Westwood Farm' (dated 11/09/18) does refer to free range layer when this installation is permitted to house broilers. This was an error. A revised version of this document dated 15/08/19, confirms that the manure analysis will be reported annually along with dust emissions based on the standard emission factor for broilers. The permit contains conditions requiring the operator to report annually based on the standard emission factor for broilers (0.034).
Concerns have been raised that the birds and incinerator will be a source of dust. It has also been raised that it is not clear whether ventilation fans have filters that will collect harmful emissions and how clean the air is that leaves via roof vents.	We are satisfied that the appropriate measures will be taken to minimise the production and emissions of dust / bioaerosols/ particulates to the local area and that there will be no significant pollution of the environment or harm to human health. As such, we do not consider it is appropriate or necessary for abatement measures such as filters to be utilised.
It has been raised that it is not clear whether emissions of dust have been quantified from the whole site and whether they comply with BAT 11.	BAT 11 states that "In order to reduce dust emissions from each animal house, BAT is to use one or a combination of the techniques given below". The Non-Technical Summary submitted with the application states that Wood shavings will be used in poultry houses which is one of the techniques identified. Therefore we are satisfied that the operator complies with BAT 11.
Concerns about Biomass Boilers	
Concerns have been raised that the thermal output for the biomass boiler may not be sufficient to heat poultry houses.	The thermal output for the biomass boiler is 1.945 MW. It is the operator's responsibility to ensure that the poultry houses are sufficiently heated
Concerns have been raised that controls should be in place to ensure that the operator can and does ensure straw is below the 25% moisture content that the manufacturer controls should be in place to ensure that the operator does not use poultry	The document Biomass Boiler (dated 31/07/19) confirms that straw will be used to fuel the boiler. The document Biomass Operation – Management/ Emergency Plan (dated 15/08/19) confirms that the straw bales are checked for any foreign material and baler twine is removed

bedding/manure in the boilers. Concerns have been raised that the plastic baler twine will not be removed from straw bales before entering the boilers.	from baled when loaded on to the conveyor by the operator. The document also confirms that the straw's moisture content is monitored and recorded daily in order to prevent mass overheating.
Query raised asking if spark arrestors should be fitted to boiler flues to prevent the risk of fire caused by the emission of flammable debris.	The document Biomass Operation – Management/ Emergency Plan (dated 15/08/19) confirms that the boiler is fitted with a flash back arrester to the fuel delivery point and a sprinkler system including conveyor to the straw store. Furthermore, a fire wall in place between straw storage and boiler.
Concerns have been raised that the section of the Biomass Management/ Emergency plan table relating to straw storage states "Do not enter with machinery running". It is not clear what this means and which machinery is being referred to.	The operator has submitted a revised Biomass Operation – Management/ Emergency Plan (dated 15/08/19). The part reading "Do not enter with machinery running" has been removed.
Concerns about the incinerator	
Concerns have been raised over how the incinerator is operated and managed.	The incinerator does not form part of this variation as it was previously permitted under application A001. The incinerator is approved by the Animal and Plant Health Agency (APHA) and operates at <50 kg/hr and is used for the incineration of fallen stock. We do not consider small incinerators with a capacity of <50kg/hr to have any significant environmental risk. The operator must comply with Animal By Product regulations. Furthermore, the Odour Management Plan document, dated 31/07/19 notes that the incinerator is operated as per the manufacturer's guidance and undergoes regular servicing and recording of burn temperatures as per the Animal health license. An inspector will come and visit the site to ensure the operator is operating legally. Further details can be found at: https://www.gov.uk/guidance/animal-by-products-how-to-burn-them-at-an-incinerator-site. We do not require any further information from the operator as we are satisfied that the appropriate measures will be in place to minimise the risk of accident from the incinerator and that appropriate measures are in place should an accident occur.
Comments about Emergencies	
Concerns have been raised that the mains water supply is not sufficient to supply a sprinkler system or fire hydrants and that the reservoir tank capacity is limited. Concerns have also been raised that dry straw may cause a fine dust which can explode or if stored outdoors will become humid and will not be dry enough to use in the biomass boilers.	The water supply the operator uses does not form part of this variation. It is the obligation of the relevant water utility, on request, to supply water to homes and businesses, including the Installation. Water companies work with regulators including the Environment Agency to ensure that they can do so in a sustainable manner. The supporting document 'Biomass Operation – Management/ Emergency Plan' dated 115/08/19) explains that fire extinguishers are located in boiler room and the straw store, a selection is available for fighting different types of fires. There is an automatic sprinkler system fitted into boilers and conveyor to prevent fire between boiler room and straw store.

	The supporting document 'Bedfordia Farm Emergency plan' received with application v002 (and dated 20/01/17) states that all flammable and combustible materials are utilised and stored safely and according to manufacturer's instructions if appropriate. The operator has confirmed that biomass fuel will be stored in the biomass buildings (see document Westwood Farm Layout/ Drainage, dated 31/07/19). The supporting document 'Biomass Operation – Management/ Emergency plan' dated 15/08/19 also addresses fire risk and the operator will have the following precautions in place in relation to fire risk from straw: Authorised entry only Warning signs displayed of fuel storage, i.e. No Smoking, No Naked flames etc. Fire wall in place between straw storage and boiler. Boilers fitted with a sprinkler system including conveyor to straw store. The following precautions are in place in regards to overheating/ dust: Moisture content monitored and recorded frequently (daily) to prevent mass overheating. Authorised entry only. Do not enter with machinery running refer to manufactures guidelines. Based on the information in the Application we are satisfied that proposals for raw material use (including water) are appropriate. The Permit includes condition 1.3 for the efficient use of raw materials.
Miscellaneous comments	
Concerns have been raised that emissions from within the site boundary will not remain in the site boundary and will affect everything and everyone outside of the site boundary and the local council cannot afford to monitor and control the operator's actions.	Section 4.0 Key issues of the decision addresses how we have assessed emissions from the installation. This variation will reduce emissions from the installation. We are satisfied that emissions from the installation will not cause significant pollution of the environment or harm to human health The operations of the local council is not an issue under the Environment Agency's remit. It does not form part of the Permit decision making process
Concerns have been raised that so much food is wasted, there is an oversupply of chicken meat.	Food waste is not an issue under the Environment Agency's remit. It does not form part of the Permit decision making process
Concerns have been raised that raising 320,000 chickens in a density of 2 every square foot is cruel	Animal welfare is not an issue under the Environment Agency's remit. It does not form part of the Permit decision making process. The Environment Agency is responsible for ensuring that the activities at the Installation do not have an unacceptable impact on the environment or human health. The principal regulator for animal health is the Animal and Plant Health agency (APHA), whose main purpose is to protect

	animal health and welfare and safeguard public health. Therefore they have primary responsibility for ensuring the farming industry has measures in place to deal effectively with any disease outbreaks on site.

Annex 2: responses to consultation on our minded to decision

In accordance with the Environment Agency's Public Participation Statement and RGN 6 for Determinations involving Sites High Public Interest, we have consulted on the draft permit and decision document that we were minded to issue for the Application. Copies of all consultation responses have been placed on the Environment Agency public register.

The draft decision was advertised on our website from 12 March 2020 – 16 April 2020 and in the Northamptonshire Telegraph and Bedford Times and Citizen on 12/03/2020. Additionally we made available electronic copies of the draft decision and draft permit on the webpage. Copies of the draft decision and draft permit were placed on our public register at the Environment Agency offices, Riversmeet House, Newtown Industrial Estate, Tewkesbury GL20 8JG. A total of 29 additional responses were received from individual members of the public and from Rushden Town Council and Sharnbrook Parish Council. A number of the issues raised in these responses were the same or very similar to those raised during the public consultation stage for the initial application. Where this is the case, the Environment Agency response provided in Annex 1 has not necessarily been repeated and reference should therefore be made to Annex 1 in addition to any response below. These included:

- Visual impact
- Off-site traffic/ congestion
- Light pollution
- Human health impacts from the development
- Dust emissions
- Noise pollution
- Odour pollution
- Pests
- Biomass boiler and emissions
- Relationship between planning process and permitting process
- The industrial nature of the process and it not being conducive to a rural/ grade 2/ Best Most Valuable Land area
- The cumulative effect of the poultry site and other nearby installations
- Flooding/ accident management/ site drainage
- The extent of local opposition
- Animal welfare
- Site location/ address and previous consultation processes

- Storage/ handling of manure
- Operator competence
- Disease and human health
- Antibiotic use

Consideration of these issues and actions we have taken to address them are detailed in the tables in Annex 1 above.

Further comment relating to the content of our draft permit and draft decision document of any new information relevant to our decision (and how we have considered them) have been listed below.

Brief summary of issues raised
Concerns have been raised over the local environment.
Summary of actions taken or show how this has been covered
This comment does not specify specific concerns. However if this comment is in regards to: Ammonia emissions (ecological receptors) – see section 4.1 Ammonia emissions (human receptors) – see section 4.2 Odour – see section 4.5 Noise – see section 4.6 Dust and bio aerosols – see section 4.7 Biomass boilers – see section 4.8 Site drainage – see section 4.9 Pests – see section 4.10 We are satisfied we have considered all relevant impacts and that there will be no significant pollution of the environment or harm to human health.

Brief summary of issues raised
Concerns have been raised around hygiene at the installation.
Summary of actions taken or show how this has been covered
This concern does not specify any specific issues. We are satisfied we have considered all relevant impacts and that there will be no significant pollution of the environment or harm to human health Condition 2.3 in the permit requires the operator to comply with the operating techniques specified in table S1.2. The plans specified in Table S1.2 shall be revised and submitted to the Environment Agency for approval if the permitted activities give rise to pollution. Furthermore, condition 1.1 of the permit states that: The operator shall manage and operate the activities: (a) in accordance with a written management system that identifies and minimises risks of pollution, so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the

operator as a result of complaints; and

(b) using sufficient competent persons and resources.

Brief summary of issues raised
Concerns have been raised that the installation is within the vicinity of heritage sites.
Summary of actions taken or show how this has been covered
We have done a detailed assessment of potential impacts from the installation and considered our general environmental duties as described in Section 5.2.4(v) above. We are satisfied that the varied permit will be suitably protective of any heritage sites.

Brief summary of issues raised
Concerns have been raised over nearby footpaths and bridleways becoming unusable if the installation is built.
Summary of actions taken or show how this has been covered
We do not consider that there will be any significant pollution outside the installation boundary so we do not consider that it will have any impact on use of public rights of way from the operation of the installation.

Response received from
Public response 14 (received 13/04/2020)
Brief summary of issues raised
Concerns have been raised that the number of birds living in the installation is unhealthy.
Summary of actions taken or show how this has been covered
This application is for a reduction in bird numbers. However, for clarity: Broilers are housed indoors and have no direct contact with wildlife. The operator has procedures in place to ensure houses are washed down at the end of each cycle. Used litter is collected and removed from site and dirty wash water is sent to dirty water tanks and also removed from site. The installation only discharges clean roof and yard run off via an attenuation pond to the River Til. The supporting document 'Fugitive Emissions' received with application V002 (and dated 20/01/17) identifies zoonosis and notifiable diseases and has the following procedures in place: Detailed biosecurity measures in place Visitor's procedures in place Use of appropriate PPE Tailored terminal hygiene programme Veterinarian health plan The supporting document 'Bedfordia Farm Emergency Plan' received with application V002 (and dated 20/01/17) set out the following contingencies in case disease breaks out amongst the

broilers:

Contact Company Area Manager

Is it a potentially notifiable disease? – contact Vet for advice, and follow advice / instructions

Integrator will implement Major Loss Procedures.

Furthermore, the principal regulator for animal health is the Animal and Plant Health Agency (APHA), whose main purpose is to safeguard animal and plant health for the benefit of people, the environment and the economy. Therefore they have primary responsibility for ensuring the farming industry has measures in place to prevent disease outbreaks or deal effectively with any disease outbreaks on site.

We are satisfied that the appropriate measures will be in place to prevent disease being transmitted from the installation to and from wildlife (including flora and fauna) or humans.

Brief summary of issues raised
1. Concerns have been raised regarding Covid-19 resulting in councils being unable to engage in this consultation. 2. Concerns have been raised regarding 'excessive storage' of raw materials. 3. Concerns have been raised regarding emissions from the incinerator and should also be listed in the OMP. 4. Concerns have been raised over part of the decision document which states that *"a 2009 DEFRA study of bioaerosols from intensive Farm indicated bioaerosols were reduced to a background level within 100m of the site. This is the best available evidence to date".* It is argued that: • It should not be assumed there is no impact on the health of residents living further than 100m from the site. • The report is limited in scope and more recent reports are more concerning. • The report is over 10 years old and is no longer 'best available evidence' 5. Concerns have been raised stating that BAT 26 is irrelevant to the production of poultry. 6. Concerns have been raised stating that monitoring relating to BAT 27 and BAT 31 is inadequate
Summary of actions taken or show how this has been covered
1. We have received responses from councils. Covid-19 has not prevented consultation responses from being received. 2. We have assessed the storage methods of raw materials and are satisfied that the Applicant is technically competent and will have appropriate management systems in place to operate the facility including associated storage of materials, in compliance with the conditions of the Environment Permit without causing significant pollution of the environment or harm to human health. Furthermore, condition 2.3.6 states that raw materials listed in table S2.1 of the permit must conform to the specifications set out on that table. 3. The incinerator is APHA approved and listed as an associated activity in the permit in table S1.1 as it is < 50 kg/hr. We are satisfied that the emissions will not have an unacceptable impact. The incinerator is listed in the OMP under carcass storage and

disposal, and carcass disposal which would be the main sources of odour.

4. Please see section 4.7 Dust and Bioaerosols which has considered the effect of these on human receptors. Guidance on our website concludes that applicants need to produce and submit a dust and bioaerosol management plan with their applications if there are sensitive receptors within 100 meters of the installation boundary. There are no sensitive receptors within 100m of the installation boundary.

   BAT 27 requires the operator to monitor dust and this is reflected in Table S3.1 of the permit. In addition to this, Table S1.2 of the permit lists the operating techniques that the operator must follow. This includes the OMP that also addresses measures to reduce dust.

   Additionally, we have consulted Public Health England (PHE) and the Director of Public Health (Bedford) under variation application V002 in line with our guidance. Public Health England and the Director of Public Health did not raise any concerns regarding dust and other particulate matter and their impact on human health at higher stocking levels.

   We are satisfied that the measures outlined in the Application and the risk assessment will prevent and where that is not practicable minimise dust and bioaerosol emissions from the Installation and prevent significant pollution or harm to human health.

5. BAT 26 relates to odour monitoring and is relevant to the installation activities.

6. The BAT conclusions represent Best Available Techniques for poultry farms. The methods proposed by the applicant are adequate and appropriate and will ensure compliance with BAT 27 and BAT 31 is adhered to.

Brief summary of issues raised
Concerns have been raised regarding roof vents and it is questioned why the installation is not required to include filters on the roof vents as they are considered BAT.
Summary of actions taken or show how this has been covered
BAT 11 states that filters may be used to reduce dust emissions from poultry houses where tunnel ventilation is in place. However, this is not a requirement as is one of several measures an operator may choose to implement. Additionally, the operator of the installation does not use tunnel ventilation. We have considered all emissions from the site from the various emission points and have concluded that there is no risk to the environment or human health and that filters are not necessary.

Brief summary of issues raised
Concerns have been raised that originally other operator proposed to use wooden pellets in the biomass boiler and are now proposing using straw and this will give different emissions.
Summary of actions taken or show how this has been covered

1. See section 4.8 for our full assessment on biomass boilers. 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. The boiler meets these conditions set out under section 4.8 to this document. This includes:

- the fuel will be derived from virgin timber, miscanthus or straw

Brief summary of issues raised
1. Concerns have been raised that there is no clear indication of what records are to be kept, what steps are to be taken to reduce and eliminate odour and what availability of the records for inspection by public bodies including local councils will be available. 2. A query has been made asking if the OMP is reviewed, is there a requirement to make available a report on that review? 3. Concerns have been raised that there is no indication of what enforcement actions can be taken and what sanctions can be applied for repeated poor performance. 4. Concerns have been raised that there is no requirement to include suitable filters on ventilation and fan exhausts due to dust and bioaerosols. Filters should be subject to check by independent bodies with availability of compulsory enforcement of further odour reduction measures in the case of repeated poor performance. 5. It has been queried what external independent bodies will do to monitor the site.
Summary of actions taken or show how this has been covered
1. Condition 1.1.1 of the permit states that: The operator shall manage and operate the activities: in accordance with a written management system that identifies and minimises risk of pollution, so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and using sufficient competent persons and resources. Condition 1.1.2 states that: Records demonstrating compliance with condition 1.1.1 shall be maintained. Condition 1.2.1 requires the operator to keep records of fuel and energy consumption. Condition 2.3.3 requires that the operator records the number of animal places and animal movements. Condition 3.5.2 requires that the operator records all monitoring required by the permit. Condition 4.1 explains how records should be kept and retained. Any reporting requirements will be on the public register in addition to our inspection forms. The Environment Agency may request copies of/ access to records during site inspections or when otherwise required. Any information obtained in compliance with a permit condition and Environment Agency

inspection forms are available on the public register unless they are determined to be confidential. Information relating to emissions cannot be determined to be confidential.

2. All documents relating to the site are available to the public using the public register except in the unlikely event of them being determined to be confidential.

3. In the event that the Operator fails to comply with any permit condition then we would consider appropriate enforcement action in line with our Enforcement and Sanctions Guidance which can be viewed at

   https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy

4. We have considered all emissions from the site from the various emission points and have concluded that there is no risk to the environment or human healthPlease see section 4.7 Dust and Bioaerosols which has considered the effect of these on human receptors. Guidance on our website concludes that applicants need to produce and submit a dust and bioaerosol management plan with their applications if there are sensitive receptors within 100 meters of the installation boundary. There are no sensitive receptors within 100m of the installation boundary.

   BAT 27 requires the operator to monitor dust and this is reflected in Table S3.1 of the permit. In addition to this, Table S1.2 of the permit lists the operating techniques that the operator must follow. This includes the OMP that also addresses measures to reduce dust.

   Additionally, we have consulted Public Health England (PHE) and the Director of Public Health (Bedford) under variation application V002 in line with our guidance. Public Health England and the Director of Public Health did not raise any concerns regarding dust and other particulate matter and their impact on human health at higher stocking levels.

   We are satisfied that the measures outlined in the Application and the risk assessment will prevent and where that is not practicable minimise dust and bioaerosol emissions from the Installation and prevent significant pollution or harm to human health.

5. The Environment Agency will carry out annual inspections. In addition, inspections can be undertaken more frequently if considered necessary or when a complaint is received. If the complaint is substantiated, the Environment Agency will carry out appropriate enforcement to ensure that the operator carries out appropriate remedial actions.

Response received from
Rushden Town Council
Brief summary of issues raised
1. The consultee is unable to comment due to pre determination of any future planning applications and therefore request the consultation period is extended to run in tandem with a full planning application for the proposed site.
Summary of actions taken or show how this has been covered
We have a statutory duty to determine the application made to us. The planning application and variation application are separate applications assessed and determined by separate

bodies. The planning application will not be determined by Rushden Town Council and it is not considered that the issue of pre-determination arises. It is not considered appropriate for the application to vary the permit to be extended to run in line with any planning application.

Response received from
Sharnbrook Parish Council
Brief summary of issues raised
Concerns have been raised that there will be a development of 2500 properties that will be within a distance that will be affected by odour and air quality, depending on wind direction.
Summary of actions taken or show how this has been covered
The local planning authority is responsible for determining land use through the planning application process, this includes for areas of land that do not form part of the installation. As discussed in section 4.5 and 4.7 of this document, the Environment Agency is satisfied following a review of the information provided by the Applicant, including their odour management plan and their noise management plan, and the conditions present within the permit, that odour and noise from the Installation does not pose an unacceptable risk of pollution outside the installation and so this would include any new development.