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

Decision document recording our decision-making process

The Permit Number is:	EPR/AP3439DZ
The Applicant is:	Newcome-Baker Farms Limited
The Installation is located at:	Whin Close Poultry Farm Docking Road Sedgeford Hunstanton Norfolk PE36 5LL
Application consultation commenced on:	**19/08/2018**
Application consultation ended on:	**23/09/2018**
Draft decision consultation commenced on:	**12/10/2018**
Draft decision consultation ended on:	**09/11/2018**

Environment Agency permitting decisions

What this document is about

This is a decision document, which accompanies a permit variation.

It explains how we have considered the Applicant's application, and why we have included the specific conditions in the varied and consolidated permit we are granting. 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/AP3439DZ/V003. We refer to the application as "**the Application**" in this document in order to be consistent.

The Application is to vary the existing permit numbered EPR/AP3439DZ. The number we have given to the varied and consolidated permit is also EPR/AP3439DZ. We refer to the varied and consolidated permit as "**the Permit**" in this document.

The Application was duly made on 06/03/2018.

The Applicant is Newcome-Baker Farms Limited. We refer to Newcome-Baker Farms Limited as "**the Applicant**" in this document. Where we are talking about what would happen after the Permit is granted, we call Newcome-Baker Farms Limited "**the Operator**".

The Applicant's facility is located at Whin Close Poultry Farm, Docking Road, Sedgeford, Hunstanton, Norfolk, PE36 5LL. We refer to this as "**the Installation**" in this document.

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; and
- justifies the specific conditions in the Permit other than those in our generic Permit template.

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

How this document is structured

Glossary of acronyms used in this document

AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information System
AQMAU	Air Quality Modelling and Assessment Unit
BAT	Best Available Technique(s)
Bref	BAT Reference Note
CLe	Critical Level
CLo	Critical Load
DAA	Directly associated activity – Additional activities which have a technical connection with the activity, of an Installation, are carried out on the same site and could have an effect on pollution
DD	Decision Document
EAL	Environmental Assessment Level
ELV	Emission Limit Value
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No. 675) as amended
EQS	Environmental Quality Standard
ES	Environmental Standard
EU-EQS	European Union Environmental Quality Standard
IED	Industrial Emissions Directive (2010/75/EU)
LPG	Liquid Petroleum Gas
NMP	Noise Management Plan
OMP	Odour Management Plan
PC	Process Contribution
PEC	Predicted Environmental Concentration
PHE	Public Health England
PPS	Public Participation Statement
PR	Public Register
SAC	Special Area of Conservation
SCR	Site Condition Report
SHPI(s)	Site(s) of High Public Interest
SPA(s)	Special Protection Area(s)
SSAFO	Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010
SSSI(s)	Site(s) of Special Scientific Interest
TGN	Technical Guidance Note

1 Our proposed decision and legal framework

We have decided to grant the Permit to the Applicant. This will allow them 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 is granted, under Regulation 13 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. These are addressed in section 5.2 of this document.

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 5.2 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 21/12/2017; however we required further information from the Applicant in order for us to consider the Application duly made. This information was requested on 01/03/2018. 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 06/03/2018. 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
Schedule 5 notice requesting further information issued 05/06/18	Information received 27/06/2018	Clarification of odour management procedures, odour management plan review, site drainage and provisions of the noise management plan.
Schedule 5 notice requesting further information issued 20/08/18	Information received 29/08/2018	Confirmation of dust reporting, provision of an updated raw material list and an updated Emergency Management Plan, and clarification on pest management and site drainage.

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 EPR, our statutory Public Participation Statement (PPS) and our own guidance 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. 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 Lynn News newspaper.

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 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":

- King's Lynn and West Norfolk Borough Council (Environmental Health) ;
- Public Health England (PHE);
- Director of Public Health, Norfolk County Council; and
- Health and Safety Executive (HSE).

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

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 section 4.1 for further details of our assessment, which discusses the potential impacts of ammonia from the Installation on designated habitats sites.

3 The Installation

3.1 Description of the Installation and related issues

3.1.1 The permitted activities

The Installation is subject to the Permitting Regulations as the Applicant operates an installation with 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 Application is to vary the Permit to intensively rear up to 360,000 chickens (fowl) at the Installation, which will therefore remain within the activity mentioned above.

3.1.2 The site location and surroundings

Whin Close Poultry Farm is situated approximately 1.5 kilometres east of the village of Sedgeford in Norfolk. The Installation is approximately centred on National Grid Reference TF 73051 36280. The land around the Installation is used primarily for arable farming, although there are some wooded areas and meadows. The land rises gently towards hills to the north-east and falls towards the Heacham River valley to the south-west.

The Applicant submitted a plan showing the site of the Installation and its extent. We consider this plan is satisfactory. It is included in Schedule 7 to the Permit, and the Operator is required to carry out the permitted activities within the Installation boundary only.

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

- there are no residential properties within 400m of the Installation boundary;
- the closest residential property is located more than 650m to the north east of the Installation boundary, with further properties located more than 800m to the north west of the boundary;
- there are three Special Areas of Conservation (SACs), three Special Protection Areas (SPAs) and three Ramsar sites within 10km of the Installation;
- there are also three Sites of Special Scientific Interest (SSSIs) located within 5km of the Installation; and
- there are no other nature conservation sites, such as National Nature Reserves (NNRs), Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs) or Ancient Woodlands, located within 2km of the Installation.

As explained below, we have taken into consideration the potential environmental impact of the activity including on all sensitive receptors.

3.1.3 What the Installation does & proposed site design

The Installation comprises eight poultry houses, numbered one to eight, which operate with a capacity of 360,000 broiler places designed for the rearing of chicken for meat production. Chicks are brought in from the hatchery at a day old and at 35 days a proportion of the birds are removed for slaughter, with the remaining birds reared to approximately 41-42 days of age, before being transported off-site for processing.

All eight poultry houses are ventilated by roof fan outlets with an emission point higher than 5.5 metres above ground level and an efflux velocity at or greater than 11 metres per second, and side wall inlets. All houses also have gable end fans, although these are operated infrequently to maintain temperature, typically in the summer

months. The houses are warmed by indirect heating in the form of modern thermostatically controlled hot water heaters with the water brought up to the required temperature by a biomass boiler with a backup system fuelled by Liquid Petroleum Gas (LPG).

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

At the end of the growing period, all birds are removed from the houses and the litter is exported off-site and either spread on land owned by the Operator or, as a contingency when there are limitations to spreading such as unsuitable weather conditions, transported to power stations for use as fuel. The empty houses are then washed and disinfected ready for the next crop. The wash water from inside the houses is channelled to an underground collection tank via internal drainage points located within each of the buildings. The contents of the collection tank are exported off-site and spread on land owned by the Operator. During depletion and clean out of the houses a valve located at the collection point is manually changed over and all surface water diverts to the underground collection tank. Roof water from the poultry houses and yard surface water (under normal circumstance, i.e. not during clean out times) drain via French drains running along the sides of the houses to a swale, located to the west of the poultry houses, acting as a soakaway. The yard is located at the centre of the installation, between sheds 1-4 and 5-8, and is a fully concreted area.

The land around the Installation is used primarily for arable farming, although there are some wooded areas and meadows. The land rises gently towards hills to the north-east and falls towards the Heacham River valley to the south-west. Associated food is stored on the Installation in silos adjacent to the poultry houses, positioned away from site traffic. Mortalities are collected daily and stored in locked and sealed containers on-site prior to removal and disposal in accordance with the Animal By-Product Regulations.

There are point source emissions from the Installation to air, water and land. Details of how we have addressed these can be found in the Permit and elsewhere in this document.

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

Table 2 Key features of the Installation

Operational features	**Description**
Broiler rearing	360,000 day old chicks reared for 35 or 41/42 days on-site.
Poultry house ventilation	High velocity roof fans (11m/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.
Waste water management	All contaminated wash water from inside the buildings and from yard areas during clean out is directed to an underground collection tank. The contents of the collection tank are exported off-site and spread on land owned by the Operator.
Carcass management	Carcasses removed daily and stored in locked and sealed containers on-site. Collected from site at least twice a week by an approved licensed contractor and disposed of in accordance with the Animal By-Products Regulations.
Site drainage	The areas adjacent to three sides of the houses are rolled stone, with a concreted area to the eastern end of houses 1-4 and the western end of houses 5-8. Poultry houses have no guttering. Roof water from the poultry houses is collected by French drains, which act as soakaways, with a piped connection to one of two on-site swales, 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 and on to the swales. The swales are 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	None	3,500 litres
	Rodenticides / Insecticides	None stored	Variable
	Veterinary medicines	None	Variable
	Bedding (straw / shavings)	9 tonnes	1,010 tonnes
	Diesel	4,000 litres	Variable
	Feed	241 tonnes	Variable

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.

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.

The Applicant has confirmed that all Installation facilities and operating techniques will be in compliance with our sector guidance note EPR 6.09.

4 Key issues of the decision

The key issues arising during this determination were as follows:

4.1. New Intensive Rearing of Poultry or Pigs BAT Conclusions document

4.2. Ammonia emissions – Ecological Receptors

4.2.1 Ammonia assessment – SAC/SPA/Ramsar

4.2.2 Ammonia assessment – SSSI

4.3. Ammonia Emissions – Human Receptors

4.4. Odour

4.4.1 Odour Management Plan Review

4.4.2 Odour modelling

4.4.3 Conclusion

4.5. Noise

4.5.1 Noise Management Plan Review

4.5.2 Conclusion

4.6. Dust/Bioaerosols

4.7. Site drainage

4.8. Accident Management

4.9. Pests

We therefore describe how we determined these issues in some detail in this document below.

4.1 New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21/02/2017. There is now a separate BAT Conclusions document which sets out the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link:

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

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

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels for ammonia emissions which will apply to the majority of permits, as well as BAT associated levels for nitrogen and phosphorous excretion.

For some types of rearing practices stricter standards will apply to farms and housing permitted after the new BAT Conclusions are published.

This variation determination includes a review of BAT compliance for new housing introduced with this variation only. A BAT review of existing housing compliance with BAT conclusions document is to be the subject of a sector permit review and is beyond the scope of this variation application permit determination.

New BAT conclusions review

There are 33 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

The Applicant has confirmed their compliance with all BAT conditions for the new housing in their document reference “Whinn Close Farm” and dated 06/03/18.

The following is a more specific review of the measures the Applicant has applied to ensure compliance with the 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 0.6 kg N/animal place/year by an estimation using manure analysis for total Nitrogen content. This confirmation, received 06/03/18, 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 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, received 06/03/18, 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 provisions for monitoring odour from the activities carried out at the installation which comply with these BAT conclusions.
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 standard dust emissions factor, based on our Pollution Index, for broilers by the number of birds on-site. This confirmation, received 29/08/18 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 0.08 kg NH_3/animal place/year. The Applicant will meet this as the standard emission factor, based on our Pollution Index, for broilers is 0.034 kg NH_3/animal place/year.

BAT measure	Applicant compliance measure
	The Installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL.

4.2 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. An increase in animal places will lead to an increase in ammonia emissions, and for this reason we have carried out an assessment of the risk.

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 SACs and 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 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.

When assessing the Installation's likely impact to flora and fauna more generally (including within other sites such as NNRs, LNRs, LWSs 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 concentration of ammonia in the air is assessed against the Critical Level threshold. The amount of ammonia deposited from air to the ground (Nitrogen Deposition) is assessed against the Critical load threshold.

[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.

The screening assessment has considered any SACs, SPAs and Ramsar sites within 10km 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 three SACs, two SPAs, three Ramsar sites and three SSSIs located within these screening distances.

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').

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

- the PC 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

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.

There are 3 Special Areas of Conservation (SAC), 3 Special Protection Areas (SPA) and 3 Ramsar sites located within 10 kilometres of the installation. There are 3 Site of Special Scientific Interest (SSSI) located within 5 km of the installation. There are no Local Wildlife Sites, Ancient Woodlands, or Local Nature Reserves within 2 km of the installation.

4.2.1 Ammonia assessment – SAC/SPA/Ramsar

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

- If the process contribution (PC) is below 4% of the relevant critical level (CLe) or critical load (CLo) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded an assessment alone and in combination is required.
- An in combination assessment will be completed to establish the combined PC for all existing farms identified within 10 km of the SAC/SPA/Ramsar.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Whin Close Poultry Unit will only have a potential impact on the SAC/SPA/Ramsar sites with a precautionary critical level of 1µg/m^3 if they are within 4,518 metres of the emission source.

Beyond 4,518 meters the PC is less than 0.04µg/m^3 (i.e. less than 4% of the precautionary 1µg/m^3 critical level) and therefore beyond this distance the PC is insignificant. In this case all SAC/SPA/Ramsars are beyond this distance (see table below) and therefore screen out of any further assessment.

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

Table 1 – SAC/SPA/Ramsar Assessment

Name of SAC/SPA/Ramsar	Distance from site (m)
Roydon Common & Dersingham Bog (SAC)	7,836
North Norfolk Coast (SAC)	7,421
The Wash & North Norfolk Coast (SAC)	6,897
The Wash (SPA)	6,895
Greater Wash (SPA)	6,895
North Norfolk Coast (SPA)	7,423
North Norfolk Coast (Ramsar)	7,421
The Wash (Ramsar)	6,897
Dersingham Bog (Ramsar)	7,897

4.2.2 Ammonia assessment – SSSI

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

- If the process contribution (PC) is below 20% of the relevant critical level (CLe) or critical load (CLo) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded an assessment alone and in combination is required. An in combination assessment will be completed to establish the combined PC for all existing farms identified within 5 km of the SSSI.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Whin Close Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of 1µg/m^3 if they are within 1,549 metres of the emission source.

Beyond 1,549 metres 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 is insignificant. In this case all SSSIs are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m^3 is used, and the process contribution is assessed to be less than 20% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the 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 these sites.

Table 2 – SSSI Assessment

Name of SSSI	Distance from site (m)
Snettisham Carstone Quarry	5,197
Hunstanton Park Esker	4,615

Heacham Brick Pit	5,176

4.3 Ammonia Emissions – 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. Should receptors be greater than 25m from the site, we would not expect detailed modelling to be completed for human health impacts from ammonia.

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

There are two human health Environmental Assessment Levels (EALs) for ammonia as outlined in our guidance 'Air emissions risk assessment for your environmental permit' (https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#pc-release-rate). These are a long term (LT) EAL of 180µg/m^3 and a short term (ST) EAL of 2500µg/m^3.

There are no human receptors within 25m of the installation boundary. The Applicant did not submit a quantitative assessment of the potential impact on human health from ammonia. However, the Environment Agency has carried out an assessment using conservative assumptions with regards to ammonia. The Environment Agency concluded that under all scenarios considered it is unlikely that there would be an exceedance of the environmental standards (ES) at receptors which are greater than 25m from the poultry sheds. The Environment Agency conclude that it is highly unlikely that the emissions will exceed the annual and daily limit values of 180 µg/m^3 and 2500 µg/m^3 respectively. From previous evaluations evidence shows that this is likely to be the situation for the majority of the intensive farming sites.

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. There have been no complaints relating to ammonia emissions from the Installation to date.

4.4 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).

The Environment Agency's overarching approach for all installations is to ensure adequate controls are in place for sites with the potential to cause odour pollution beyond the installation boundary. This is achieved via the requirement for the operator to have and comply with an approved odour management plan (OMP). This OMP must be approved by the Environment Agency in line with odour condition 3.3 (see below). Such an OMP covers both stack and fugitive potential odorous emissions from an installation and is based on the foundation of a bespoke risk assessment for each particular installation as discussed below.

Condition 3.3 of the Permit reads as follows:

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

Under section 3.3 of the guidance, an odour management plan must be approved as part of the permitting process if sensitive receptors (in this instance excluding properties associated with the Installation) 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. In this instance there are no sensitive receptors within 400m of the Installation boundary. The closest sensitive receptor to the Installation boundary is more than 650m away. Despite this the Applicant has submitted an OMP, and further details are provided in section below.

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

- the selection of feed;
- feed delivery and storage;
- problems with ventilation systems (inadequate air movement leading to high humidity and wet litter);
- poor litter management (including wet litter, insufficient or poor quality litter, drinking systems spillage and disease outbreak leading to wet litter);
- carcass storage or disposal; and
- house clean out operations.

4.4.1 Odour Management Plan Review

The Installation is not located within 400m of sensitive receptors, however an OMP was submitted with the Application, dated 27/12/2017. A revised OMP was received on 27/06/2018 in response to a Schedule 5 Notice requesting further information. The OMP has been assessed against the requirements of 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 (version 2), Appendix 4 guidance 'Odour Management at Intensive Livestock Installations', our H4 Odour Management: How to Comply With Your Permit guidance and our Top Tips Guidance and Poultry Industry Good Practice Checklist (August 2013) as well as the site specific circumstances at the Installation. We consider that the OMP is acceptable.

The Operator is required to manage activities at the Installation in accordance with condition 3.3.1 of the Permit and its OMP. The OMP includes odour control measures, in particular, procedural controls such as manufacture and selection of compound foods, feed delivery and storage, ventilation techniques, litter conditions and management, carcass disposal and storage, management of drinking water systems, destocking of livestock (thinning and final depletion), clean out (litter removal) and house washing operations and dirty water management. It includes contingency measures to minimise odour pollution during abnormal operations such as failure of feed storage, leaks in drinking systems, failure of carcasses stores and increased emissions during bird depletion.

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

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

Although there is the potential for odour pollution from the Installation, the Operator's compliance with its OMP, received on 27/06/2018 in response to a Schedule 5 Notice requesting further information, 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.

4.4.2 Odour modelling

Odour modelling for the intensive farming sector has high uncertainties associated with it. These uncertainties increase when considering receptors near to an Installation. This is due to a number of reasons including variability of odour concentrations being high for this sector. This, along with the uncertainties inherent in any modelling, makes predictions made by the model unreliable for making permit determination decisions. Therefore, odour modelling has not been submitted or requested a part of this determination. Instead a robust OMP has been produced.

4.4.3 Conclusion

We have included our standard odour condition 3.3.1 in the Permit, which requires that emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an

authorised officer of the Environment Agency, unless the Operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan (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 odour.

The Applicant will be required to operate the Installation in line with the operating techniques set out in the Application supporting documents and the OMP. There is a requirement to review the OMP either following an Environment Agency substantiated complaint or annually, whichever is sooner. The review will record whether changes to the OMP should be made and make any appropriate changes to the OMP identified by the review.

To date, no substantiated odour complaints have been received relating to the Installation. We are satisfied that operations carried out on the Installation will minimise the risk of odour pollution and maintain the level of odour management at the Installation.

4.5 Noise

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

Condition 3.4 of the Permit reads as follows:

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

In this instance there are no sensitive receptors within 400m of the Installation boundary. The closest sensitive receptor to the Installation boundary is more than 650m away. Despite this the Applicant has submitted a NMP, and further details are provided in section below.

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

- large and small vehicles accessing the site;
- vehicles and machinery carrying out operations on-site;
- feed delivery and transfer from lorry to storage;
- operation of ventilation systems;
- clean out operations;
- alarm system and standby generator testing;
- chickens;
- removal of litter and waste water;
- personnel; and
- building repair work.

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

4.5.1 Noise Management Plan Review

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

There are no sensitive receptors within 400m of the Installation boundary. However, the Applicant has provided an NMP as part of the Application supporting documentation. A revised NMP was received on 27/06/2018 in response to a Schedule 5 Notice requesting further information.

Operations with the most potential to cause noise nuisance have been assessed and control measures put in place for large and small vehicles accessing the site and manoeuvring around it (specifically HGVs), vehicles and machinery carrying out operations on-site, feed delivery and transfer from lorry to storage, operation of

ventilation systems, clean out operations, standby generator testing, noise from chickens and removal of litter and waste water. In addition, the NMP includes confirmation of annual staff training including noise management, and also noise complaints procedures. The NMP will be reviewed at least annually and/or after an Environment Agency substantiated complaint is received, whichever is the sooner.

The Applicant has only considered HGV and other vehicle movements within the Installation boundary, which is consistent with our information requirements. Noise emitted from vehicles travelling on the local road network are primarily matters for the local planning authority when considering the planning application.

There is the potential for noise from the Installation beyond the Installation boundary. However the risk of noise beyond the Installation boundary has been assessed as unlikely to cause a nuisance.

4.5.2 Conclusion

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

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

To date, no substantiated noise complaints have been received relating to the Installation. 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. There is a requirement to review the NMP either following an Environment Agency substantiated complaint or annually, 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.

4.6 Dust and Bio aerosols

Guidance on our website concludes that applicants need to produce and submit a dust and bio aerosol management plan with their applications only if there are relevant receptors within 100 metres of their farm, e.g. the farmhouse or farm worker's houses. The closest sensitive receptor to the Installation boundary is more than 650m away, and therefore a Dust and Bio aerosol management plan has not been provided. 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. This fact, together with the proposed good management of the Installation such as keeping areas clean from build-up of dust, and other measures in place to reduce dust and risk of spillages (e.g. litter and feed management/delivery procedures) all reduce the potential for emissions impacting the nearest receptors.

The use of Best Available Techniques and good practice will ensure minimisation of emissions. There are measures included within the Permit (the 'Fugitive Emissions' conditions) to provide additional protection from fugitive emissions. Condition 3.2.1 'Emissions of substances not controlled by an emission limit' is included in the Permit. This is used in conjunction with condition 3.2.2 which states that in the event of fugitive emissions causing pollution following commissioning of the Installation, the Operator is required to undertake a review of site activities, provide an emissions management plan and to undertake any mitigation recommended as part of that report, once agreed in writing with the Environment Agency.

Conclusion

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

4.7 Site Drainage

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 11 m/s. In addition, the measures proposed by the Applicant in its routine maintenance schedule include regular buildings inspection, site maintenance and weekly procedures to ensure drainage systems are clean. 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 and specifically the section entitled 'Appropriate measures for preventing and minimising fugitive emissions, Management of drainage systems and run-off', which 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.*"

The poultry houses do not have guttering and therefore roof water falls to areas alongside the houses. The areas along the long sides of the houses, and the western ends of poultry houses 1 – 4 and the eastern ends of poultry houses 5 – 8 are rolled stone areas with French drains underneath. The French drains act as soakaways, and in addition have a piped connection to one of two on-site swales, for periods of heavy rainfall. In addition, yard surface water (during normal operations, not at clean out times) drains to these French drains and on to the swale. French drains and swales are considered as sufficient interception and treatment for lightly contaminated yard and roof water (although in this instance roof water is considered to be clean).

Additional ventilation may be required infrequently, during times of hot weather, and this is provided by gable end fans located to the western ends of poultry houses 1 – 4 and the eastern ends of poultry houses 5 – 8. Additional mitigation is required for drainage from areas where dust may gather from this type of ventilation, as detailed in the section of EPR 6.09 mentioned above, which states that:

"*Where the ventilation system has outlets through side-walls, interception is required before drainage reaches surface water systems. Interception may include grassed areas, swales or collection pits*."

As detailed above, the areas to the western ends of poultry houses 1 – 4 and the eastern ends of poultry houses 5 – 8 of the houses are rolled stones with French drains underneath which provide sufficient mitigation, and with additional mitigation in the form of the swales. The Permit will ensure (via the management condition, 1.1) that the Operator keeps these areas clean to minimise potential pollution of the surface water prior to draining through the French drains and on to the swale.

The swales are formed through the digging out and bunding of soil, acting as a soakaway and will potentially only be used in times of heavy rainfall, acting as a holding area/balancing pond should there be any storm water in a short period of time.

Surface water from the concreted yard to the eastern end of the houses drains via the French drains described above, and potentially onto the swale, during normal operation.

During clean out of the poultry houses where the concreted yard may become contaminated, a diverter valve is manually operated to 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 is compliant with the Water Pollution (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (SSAFO) and is of sufficient size to contain all wash waters during extreme weather and will be visually inspected to ensure it does not overflow. Measures are in place to ensure the diverter valve is in correct position to divert dirty water to the tank prior to commencement of clean out. All wash water inside the poultry houses goes straight in to the dirty water drainage system and on to the dirty water collection tank.

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 S3.2 of EPR 6.09 'How to Comply with your environmental permit for intensive farming', version 2. Foot baths will be managed so as to prevent overflow, and the design of the wheel wash will prevent any entry into surface or groundwater discharge and minimise any releases. Spent disinfectants from the foot baths and wheel wash are disposed of with the dirty water.

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 should occur as a result of operations at the Installation.

4.8 Accident management

An accident management plan has been submitted by the Applicant (reference 'Whin Close Farm Emergency Plan') with the Application. This includes details of the site infrastructure along with a plan of the drainage layout, and details of firefighting equipment, location of spill kits and diverter valves.

The emergency procedures are set out, giving priority to livestock welfare and avoiding environmental pollution. Procedures are written for different accident scenarios: pollution prevention/control including overflow or failure of drainage system, power outage, fire, disease outbreak, containment failure and severe weather including flooding. An out of hours emergency rota is also included, detailing measures in place including alarms connected to sensors, staff on call to be within 2 miles of the site, remote monitoring of poultry houses via sensors, remote operation of poultry house conditions (temperature and ventilation) and CCTV remote monitoring of the site.

We are satisfied that the procedures in place are suitable to prevent or minimise the likelihood of an accident from occurring, or minimise environmental pollution in the event of an accident.

4.9 The possible impact of pests

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

- good management of the installation;
- keeping areas clean;
- measures in place to reduce dust and risk of spillages such as manure and feed;
- litter kept as dry and friable as possible within the poultry houses;
- no litter stored on-site; and
- carcasses removed daily from the poultry houses and stored in locked and sealed containers on-site and collected from site at least twice a week.

In addition, the Applicant has pest control measures in place, including baits to control rats should they appear. Flies are unlikely to be a problem due to the short time used litter is on-site (removed approximately every 7 weeks) and manure is mixed in with litter in the poultry houses during operation.

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 has not submitted a Pest Management Plan with the Application, however condition 3.6 of the Permit (detailed above) requires the Operator to provide one should we require this. We do not consider a Pest Management Plan is required at the Installation as there have been no substantiated complaints relating to pests.

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

5. Other considerations

During the determination of the Application we have also taken the points below into consideration.

5.1 Operator competence

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.

The Applicant was first granted a permit for the Installation in 2017. Since this time, no substantiated complaint has been received by the Environment Agency.

An applicant's compliance record includes a review of relevant convictions. 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 Directive 2003/35/EC – The Public Participation Directive

Regulation 60 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 decision in this case has been reached following a programme of extended public consultation, both on the original Application and later, separately, on the Permit and a draft decision document.

5.2.2 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 Permit 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 Permit 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 Permit 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 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 Permit 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 Permit.

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 4.2 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 Permit 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 Permit. Paragraph 1.3 of the guidance says:

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

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

We consider the requirements and standards we have set in 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.

1.2.10 Conservation of Habitats and Species Regulations 2017

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.

We consulted Natural England by means of a Habitats Risk Assessment, and they have not questioned our conclusion, that the operation of the Installation would not have a likely significant effect on the interest features of protected sites.

The habitat assessment is summarised in greater detail in section 4.1 of this document. A copy of the full Habitats Risk Assessment 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 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 GOV.UK website from 20/04/2018 – 18/05/2018 and in the Lynn News on 20/04/2018. Copies of the Application were placed on our public register at the Heron House, Prickwillow Road, Ely, Cambs, CB7 4TX. We made electronic copies of the Application available on the GOV.UK webpage. 14 consultation responses were received in total, including 1 in support of the application.

The following statutory and non-statutory bodies were consulted:

- Borough Council of King's Lynn and West Norfolk (Environmental Health);
- Public Health England (PHE);
- Director of Public Health, Norfolk County Council; and
- Health and Safety Executive (HSE).

1) Consultation Responses from Statutory and Non-Statutory Bodies

Responses from organisations listed in the consultation section

Response received from
Borough Council of King's Lynn and West Norfolk (Environmental Quality & Community Safety and Neighbourhood Nuisance, received 16/05/2018)
Brief summary of issues raised
Community Safety and Neighbourhood Nuisance Updated noise and odour management plans have been included within the application. It is not clear from the application whether consideration has been given to the increase in fans and the subsequent increase in noise emissions.
Summary of actions taken or show how this has been covered
The installation has been permitted for operation since 13/07/2017. To date, no substantiated odour or noise complaints have been received by the Environment Agency. The Installation is not located within 400m of sensitive receptors, and therefore is not required to submit either an OMP or an NMP. However, both an NMP and an OMP was submitted with the Application which is assessed in sections 4.4 and 4.5 above respectively. We have included our standard noise and vibration condition 3.4.1 in the Permit, which requires that emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the Operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan (which is captured through condition 2.3 and Table S1.2 of the Permit), to prevent or where that is not practicable to minimise the noise and vibration. The NMP includes a procedure for end of cycle maintenance on ventilation fans by a qualified electrician. We have also included our standard odour condition 3.3.1 in the Permit, which states that emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan (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 odour.

The Applicant will be required to operate the Installation in line with the operating techniques set out in the Application supporting documents, the NMP and the OMP. There is a requirement to review the NMP and the OMP either following an Environment Agency substantiated complaint, or every year, whichever is sooner. The review will record whether changes to the NMP and/or the OMP should be made and make any appropriate changes to the NMP and/or the OMP identified by the review. We are satisfied with the measures detailed both in the NMP and in the OMP.

The HSE, PHE and Director of Public Health were also consulted but no responses were received.

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

Representations from councillors and parish town community council

Response received from
Heacham Parish Council (received 08/05/2018)
Brief summary of issues raised
The installation is situated on a principle aquifer, a drinking water protected area and is within 650m of a surface watercourse. Concerns raised that the Environment Agency do not have the resources to observe the site constantly to ensure the conditions of the Permit are not breeched. The storage, disposal and burning of the chicken litter has the potential to harm the existing tourist industry in the area.
Summary of actions taken or show how this has been covered
Section 4.7 of this document considers impacts from site drainage. The measures required to be in place by the Permit will ensure that any contaminated water will be contained, and potentially lightly contaminated water has sufficient mitigation in place therefore no pollution of groundwater or surface water should occur as a result of operations at the Installation. The procedures that the operator has in place, which require implementation through the Permit, will ensure the correct operation of the dirty water diverter valve. The use of a diverter valve in this way is a standard technique used by the intensive farming industry. Field storage of manure and land spreading outside of the Installation boundary are outside the remit of the Permit and are therefore not part of our assessment. The surrounding land where manure may be stored and spread is not part of the Installation. Condition 2.3.5 has been included in the Permit for slurry spreading and manure management. It 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 operator has confirmed that the dirty water collection tank is 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 Environment Agency can carry out unannounced visits to an installation at a frequency based on the perceived significance of the pollution risk posed by the installation. During these visits, we will require the Operator to demonstrate that they have complied with the conditions of their permit. The Operator will also be required to report annually to the Environment Agency regarding ammonia, nitrogen, phosphorus and dust emissions in order to demonstrate BAT, as well as reporting to the Environment Agency as soon as is practicable in the event of an environmental incident. No chicken litter is burned at the installation. At the end of the growing period, all litter is exported off-site and either spread on land owned by the operator or as a contingency, when there are limitations to spreading such as unsuitable weather conditions, transported to power stations for use as fuel. Burning chicken litter off-site is

not a matter within our remit when determining this Application

Response received from
Sedgeford Parish Council (received 17/05/2018)
Brief summary of issues raised
It is the view of the Parish Council that it is too soon to be sure whether the procedures relating to odour and noise are adequate. Only when there has been an extended period of warm weather will it be clear if either odour or noise are causing any problem to local residents.
Summary of actions taken or show how this has been covered
As discussed above, the Environment Agency is satisfied following a review of the OMP and NMP provided in the Application, as well as the conditions present within the Permit, that emissions of odour from the Installation will not pose an unacceptable risk of pollution to the environment or harm to human health. We have had an extended period of warm weather over the summer months of 2018. During this time, no substantiated complaints were received relating to the installation.

Response received from
Borough Councillor, Heacham Ward, Borough Council of King's Lynn and West Norfolk (received 17/05/2018)
Brief summary of issues raised
The Emergency Plan submitted within the Application is simplistic and more concerned with protecting the broiler stock than with protecting the environment. The operator will need to discover an emergency has occurred before responding; the delay between this response and the emergency occurring could harm the local environment. The site slopes towards boreholes of Anglian Waters and the Heacham River.
Summary of actions taken or show how this has been covered
The installation has been permitted for operation since 13/07/2017. To date, no substantiated environmental incidents have been reported to the Environment Agency. A revised Emergency Plan was submitted as a response to a Schedule 5 (received 29/08/2018). The Applicant will be required to operate the Installation in line with the operating techniques set out in the Application supporting documents and the Emergency Plan. There is a requirement to review the Emergency Plan either following an accident, or every year, whichever is sooner. The review will record whether changes to the Emergency Plan should be made and make any appropriate changes to the Emergency Plan identified by the review. An Emergency Roster is in place should an incident occur out of hours. Alarms are connected to sensors to alert rostered staff should any conditions within the sheds significantly change. The operator has confirmed that staff will be on-site within 5 – 10 minutes in the event of the alarm being raised out of hours. The Operator has provided details of measures in place to ensure contaminated water does not enter the clean water drainage system, and in addition have included an out of hours emergency rota in the Emergency Plan, detailing procedures in place when the site is not manned, such as remote monitoring of the Installation, an alarm system, and staff on rota to be within 2 miles of the Installation. Section 4.8 of this document provides further details. We are satisfied that the procedures in place are suitable to prevent or minimise environmental pollution in the event of an accident, and should ensure that the Heacham River is not polluted by operations on the site.

Representations from individual members of the public.

Brief summary of issues raised
The Operator submitted an application for 8 broiler houses in January 2016. This was withdrawn due, presumably, to the objections of the local public. This application is a back door approach for the original application. The larger unit is inappropriate for the local environment.
Summary of actions taken or show how this has been covered
An application was submitted to the Environment Agency on 20/01/2016 for an installation at Whin Close Poultry Farm with space for 336,000 broiler places in 8 broiler houses (application reference EPR/DP3433AB/A001). The application for 336,000 broiler places was not assessed by the Environment Agency, as it was withdrawn by the operator prior to the application being assessed. The application was resubmitted by the operator with space for 168,000 broilers to be housed in 4 broiler houses. This application was assessed by the Environment Agency and the permit was issued on 13/07/17. The Environment Agency has a duty to assess an application that is submitted to it by an operator. We have undertaken public consultations on the application submitted in line with the requirement of our guidance and addressed all comments submitted into account. We are satisfied with the proposals put forward in the Application and 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.

Brief summary of issues raised
The installation has only been operational during a cold winter. Local residents have not experienced operation of the facility during a hot summer when people are more likely to be outside to detect odour or noise emissions from the installation.
Summary of actions taken or show how this has been covered
The installation has been permitted for operation since 13/07/2017. To date, no substantiated odour or noise complaints have been received by the Environment Agency. The Installation is not located within 400m of sensitive receptors, and therefore is not required to submit either an OMP or an NMP. However, both an NMP and an OMP was submitted with the Application which is assessed in sections 4.4 and 4.5 above respectively. We are satisfied that the measures proposed in these plans will sufficiently protect the environment and local amenity. We have included our standard noise and vibration condition 3.4.1 in the Permit, which requires that emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the Operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan (which is captured through condition 2.3 and Table S1.2 of the Permit), to prevent or where that is not practicable to minimise the noise and vibration. We have also included our standard odour condition 3.3.1 in the Permit, which states that emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan (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 odour. The Applicant will be required to operate the Installation in line with the operating techniques set out in the Application supporting documents, the NMP and the OMP. There is a requirement to review the NMP and the OMP either following an Environment Agency substantiated complaint, or every year, whichever is sooner. The review will record whether changes to the NMP and/or the OMP should be made and make any appropriate changes to the NMP and/or the OMP identified by the review. We are satisfied with the measures detailed both in the NMP and in the OMP.

Brief summary of issues raised
The proposals will lead to an increase in traffic, which will lead to an increase in emissions. Concerns also raised regarding pests at the installation (including rats).
Summary of actions taken or show how this has been covered
Traffic movements off-site are not a matter within our remit when determining the Application. This may be something that is considered by the planning regime as part of a planning determination. The operator has procedures at the installation to reduce noise from traffic with a speed restriction of 10 mph within the site boundary, which should limit noise emitted from on-site traffic. We are satisfied that appropriate measures will be in place to prevent and/or minimise pests. The operator has confirmed that they have a contract in place with a licenced pest control contractor to manage the potential for pests at the installation. We have also included our standard odour condition 3.6.1 in the Permit, which states that 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. Condition 3.6.2 of the Permit requires the operator to submit one to the Environment Agency should they be notified that they require one by the Environment Agency.

Brief summary of issues raised
Concerns raised that the proposals will lead to an increase in light pollution from the installation, which is visible day and night.
Summary of actions taken or show how this has been covered
Visual impacts from light pollution are a matter that may be considered by the planning regime as part of a planning determination. It does not form part of our decision making process. IED is concerned with the control of substances, vibration, heat or noise from an installation. It does however require an installation should use energy efficiently. So the Permit requires that the Operator takes appropriate measures to ensure that energy is used efficiently in the activities which should keep lighting to a minimum. The Applicant has confirmed in the Application that low energy lighting will be used in the houses, control areas and in other parts of the site. Condition 1.2 Energy Efficiency is included in the Permit and states: *1.2.1 The operator shall:* *(a) take appropriate measures to ensure that energy is used efficiently in the activities;* *(b) maintain records of fuel and energy consumption used in the activities.*

Brief summary of issues raised
Concerns raised with regards to a potential avian flu outbreak.
Summary of actions taken or show how this has been covered
We have consulted Public Health England (PHE) and the Director of Public Health (Norfolk County Council) on the Application in line with our guidance. Public Health England and the Director of Public Health have not raised any concerns with regards to avian flu and transmission to humans. The primary regulator for animal health is the Animal and Plant Health Agency (APHA), whose primary purpose is to help safeguard animal health and welfare and public health. Therefore they are primarily responsible for ensuring the farming industry has measures in place to effectively deal with any disease outbreaks on-site. Regulatory controls are available to the appropriate authorities to address any serious incidences of disease such as bird flu or bacteria resistant to antibiotics should they arise. The Environment Agency does not consider that the Installation poses a significant risk to the local community as a consequence of bird flu issues.

Advertising and Consultation on the Draft Decision

The draft decision was advertised and consulted on between 19 October 2018 and 9 November 2018. Only one response was received. This was from PHE, stating that they have no further comments to submit.