

# **Environment Agency permitting decisions**

## **Bespoke permit**

We have decided to grant the permit for Granary Pig Farm operated by Mr Brian Barker.

The permit number is EPR/WP3331RG

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

## **Purpose of this document**

This decision document:

- 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
- 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.

## **Structure of this document**

- Description of main features of the installation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

## **Description of the main features of the Installation**

Granary Pig Farm is situated approximately 1.4 kilometres south west of the town of Beccles, Suffolk. The installation is approximately centred on National Grid Reference TM 40865 88525.

The installation is operated by Mr Brian Barker and comprises five pig houses, numbered one to five, which operate a solid floored straw based system for production pigs >30kg. The five houses provide a combined capacity for 4,410 pig places. Pigs are brought on to the installation at approximately 30 – 40kg in weight, and grown to >100kg before being transported off site to a processing unit.

The pig houses are naturally ventilated through the sidewalls, with extensive Yorkshire boarding to the sides and ends of the units.

The houses have manure removed daily and stored in a covered storage area and straw is replaced daily. All manure is exported from the installation for spreading on land either owned by the operator or third parties. Contaminated yard water and drainage from the manure storage area is channelled to reception pits to the west of the houses 1 and 2 and to the north east of house 5, and then pumped to a clay lined lagoon prior to exporting off site and spreading on land either owned by the operator or third parties. Roof water from all houses drains via gutters and is piped underground to a reception pit to the north of the houses, and then piped across a field to a predominantly dry ditch, which acts as a soakaway. If the ditch were to flow it would ultimately drain to the River Waveney. Areas surrounding the pig houses, not associated with the dirty water drainage system, are permeable hardcore or grassed and therefore act as soakaways.

## Key issues of the decision

### Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February 2013 and came into force on 27 February 2013. These Regulations transpose the requirements of the IED.

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

### Groundwater and soil monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain a condition relating to protection of soil, groundwater and groundwater monitoring. However, the Environment Agency's H5 Guidance states **that it is only necessary for the operator to take samples** of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be existing contamination and:

- The environmental risk assessment has identified that the same contaminants are a particular hazard; or
- The environmental risk assessment has identified that the same contaminants are a hazard and the risk assessment has identified a possible pathway to land or groundwater.

H5 Guidance further states that it is **not essential for the Operator** to take samples of soil or groundwater and measure levels of contamination where:

- The environmental risk assessment identifies no hazards to land or groundwater; or
- Where the environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historic contamination by those substances that present the hazard; or
- Where the environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historic contamination by those substances that pose the hazard.

The site condition report (SCR) for Granary Pig Farm (reference 3a - Site Condition Report, received as part of application EPR/WP3331RG/A001 duly made 11/07/16) demonstrates that there are no hazards or likely pathway to land or groundwater and no historic contamination on site that may present a hazard from the same contaminants. **Therefore, on the basis of the risk assessment presented in the SCR, we accept that they have not**

**provided base line reference data for the soil and groundwater at the site at this stage, and although condition 3.1.3 is included in the permit it is unlikely groundwater monitoring will be required.**

The installation is in Source Protection Zones (SPZ) 2 and 3, and Groundwater Vulnerability Zone (GWVZ) with intermediate permeability, and major aquifer. It is also in an existing surface water Nitrate Vulnerable Zone (NVZ).

## **Ammonia emissions**

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

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

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

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

Detailed modelling submitted by the applicant (reference document 5, 'Granary Pig Farm Air Quality Impact Assessment April 2016') has determined that the PC on the SAC, SPA and Ramsar for ammonia emissions from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. See results below.

The modelling provided by the applicant has been audited in detail by our Air Quality Modelling and Assessment Unit (AQMAU) and we have confidence that we can agree with the report conclusions.

**Table 1 – Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of Critical level
The Broads SAC	1*	0.02	2
Broadland SPA	1*	0.02	2
Broadland Ramsar	1*	0.02	2

\*Natural England advised that a CLe of 1 for ammonia should be applied for The Broads SAC and Broadlands SPA (June 2016)

Where the precautionary level of  $1\mu\text{g}/\text{m}^3$  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.

No further assessment is necessary.

### **Ammonia assessment – SSSI**

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

- If the process contribution (PC) is below 20% of the relevant critical level (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 application.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Granary Pig Farm will only have a potential impact on SSSI sites with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 3185 metres of the emission source.

Beyond 3185m the PC is less than  $0.2\mu\text{g}/\text{m}^3$  (i.e. less than 20% of the precautionary  $1\mu\text{g}/\text{m}^3$  critical level) and therefore beyond this distance the PC is insignificant. In this case the following SSSIs are beyond this distance (see table 2 below) and therefore screen out of any further assessment.

Where the precautionary level of  $1\mu\text{g}/\text{m}^3$  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  $1\mu\text{g}/\text{m}^3$  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)
Titsal Wood, Shadingfield SSSI	4962
Stanley and Alder Carrs, Aldeby SSSI	4180
Leet Hill, Kirby Cane SSSI	5032*

\* Please note, for ammonia screening purposes, the distances of the nature conservation sites from the installation have been calculated from the approximate centre of the installation. A buffer has been included to account for the size of the site to include nature conservation sites within the relevant distance (5km) from the installation boundary.

Detailed modelling submitted by the applicant (reference document 5, 'Granary Pig Farm Air Quality Impact Assessment April 2016') has determined the PC for the Broads SAC and Broadland SPA/Ramsar for ammonia emissions. These sites are at the same location as Geldeston Meadows SSSI therefore the same PC has been used for this SSSI also. This has indicated that the PC for Geldeston Meadows SSSI is predicted to be less than 20% of the critical level for ammonia emissions therefore it is possible to conclude no damage. The results are given in table 3 below.

The ammonia modelling assessment has been audited in detail by our Air Quality Modelling and Assessment Unit and we have confidence that we can agree with the report conclusions.

**Table 3 – Ammonia emissions**

Site	Ammonia Cle ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PC % critical level
Geldeston Meadows SSSI	1*	0.02	2

\*Natural England advised that a CLe of 1 for ammonia should be applied for Geldeston Meadows SSSI (June 2016)

Where the critical level of  $1\mu\text{g}/\text{m}^3$  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.

No further assessment is necessary.

### **Ammonia assessment - LWS**

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

- If the process contribution (PC) is below 100% of the relevant critical level (CLe) or critical load (CLO) then the farm can be permitted with no further assessment.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Granary Pig Farm will only have a potential impact on the LWS sites with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 1330m metres of the emission source.

Beyond 1330m the PC is less than  $1\mu\text{g}/\text{m}^3$  and therefore beyond this distance the PC is insignificant. In this case all LWSs are beyond this distance (see table below) and therefore screen out of any further assessment.

**Table 4 – LWS Assessment**

Name of SAC/SPA/Ramsar	Distance from site (m)
Weston Crossing Railway Line LWS	1894
Furze Common LWS	1825
Rectory Meadows Pond LWS	1586

Where the precautionary level of  $1\mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than 100% the site automatically screens out as insignificant and no further assessment of critical load is necessary.

No further assessment is necessary.

## Odour

There are sensitive receptors within 400 metres of the installation and therefore an odour management plan has been prepared, as required in chapter 3, section 3.3 of guidance SGN How to comply – Intensive Farming - The EPR Sector Guidance Note 6.09 for intensive pig and poultry farmers, Version 2, published January 2010 (SGN EPR 6.09). The nearest residential properties are as follows:

1. Field View, occupied by people associated with the farm, located approximately 10m to the south of the installation boundary.
2. Granary Farm, occupied by people associated with the farm, located approximately 30m to the south of the installation boundary.
3. White House Farm located approximately 200m to the west of the installation boundary.
4. Church Cottage located approximately 290m to the south west of the installation boundary.
5. The White House located approximately 315m to the south west of the installation boundary.

6. Newlands located approximately 240m to the south of the installation boundary.
7. The Manor House located approximately 390m to the south west of the installation boundary.

The residences occupied by people associated with the farm (properties described above in 1 and 2) are not considered as sensitive receptors for odour as it is unlikely that odour will be perceived by them as a nuisance. The other properties are located to the south, west or south west and are over 200m from the installation boundary and further away from the pig houses and main operations. The general wind direction is from the south west therefore emissions from the farm will not generally be dispersed in the direction of these properties.

A revised Odour Management Plan (OMP), received 08/08/16 (reference Odour Management Plan), is considered acceptable having been assessed against the requirements of IPPC SRG 6.02 (Farming): Odour Management at Intensive Livestock Installations plus our Top Tips Guidance and Pig Industry Good Practice Checklist and with regard to the site specific circumstances at the installation. The operator is required to manage activities at the installation in accordance with condition 3.3.1 and this odour management plan. The odour management plan includes odour control measures, in particular, procedural controls such feed selection, feed delivery and storage, ventilation techniques, carcass disposal and storage, fluctuations of stocking densities, management of drinking water systems, pig movement on and off site, house washing operations, dust build up, and unexpected odour events. The odour management plan is required to be reviewed at least every 4 years and/or after a complaint is received, whichever is the sooner.

We are satisfied that operations carried out on the farm will minimise the risk of odour pollution from the installation.

There is the potential for odour pollution from the installation. The operator's compliance with their Odour Management Plan, submitted with this application, will minimise the risk of odour pollution beyond the installation boundary and the risk of odour pollution at sensitive receptors beyond the installation boundary is not considered significant.

## **Noise**

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour section. The applicant has provided a noise management plan (NMP) as part of the application supporting documentation, reference 8.



Operations with the most potential to cause noise nuisance have been assessed as those involving delivery vehicles travelling to and from the farm, vehicles on site, feed transfer from lorries to bins, testing of the alarm system, noise from pigs on site, staff and contractors, and repairs. The noise management plan covers control measures for each of these potential noise hazards.

As for odour, the residences occupied by people associated with the farm are not considered as sensitive receptors as it is unlikely that noise will be perceived as a nuisance. The other five residences within 400m of the boundary are located over 200m from the installation boundary and further away from the pig houses and main operations.

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

## **Dust and bioaerosols**

There are measures included within the permit (the 'Fugitive Emissions' conditions) to provide a level of protection. The use of Best Available Techniques and good practice will ensure minimisation of emissions. Furthermore, 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.

The closest residential receptor (Field View) is located adjacent approximately 10m south of the installation boundary. The next closest receptor (Granary Farm) is located approximately 30m to the south of the installation boundary. All other properties are greater than 100m from the installation boundary, and those within 400m, as detailed in the odour section above, are all located to the south, west or south west of the installation.

The general wind direction in the area is from the south west (as shown in figure 3-1 in the Air Quality Assessment Report (reference 5) submitted with the application). This means that the nearest receptors are generally not downwind of the installation. This, 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.

The applicant has also submitted a dust and bioaerosol risk assessment (reference Bioaerosol Assessment), which wasn't written in accordance with

Environment Agency's EPR 6.09 How to Comply with your Environmental Permit for Intensive Farming Appendix 11 guidance. However, the assessment submitted, together with information elsewhere in the application supporting documents, such as the technical standards and odour management plan, are acceptable as a bioaerosol risk assessment and the measures outlined in the application will minimise the potential for dust and bioaerosol emissions from the installation.

## Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit.

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on commercial confidentiality.	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> <li>• Health and Safety Executive</li> <li>• Waveney District Council Environmental Health</li> <li>• Public Health England</li> <li>• Director of Public Health</li> </ul> <p>We have consulted with Public Health England and the Director of Public Health because there are sensitive receptors within 100m of the installation boundary.</p>	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
<b>Operator</b>		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on what a legal operator is.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
<b>The site</b>		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat .</p> <p>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the site.</p> <p><b>Please refer to Key Issues section Ammonia Assessment for further information.</b></p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p> <p>An Appendix 11 has been sent to Natural England for information only (dated 16/08/16) and saved on the Environment Agency’s Electronic Document and Records Management system (EDRM).</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>The operating techniques include the following:</p> <ul style="list-style-type: none"> <li>• Pig housing is naturally ventilated through the sidewalls as a result of Yorkshire boarding</li> <li>• Litter is exported off site and is spread on land either owned by the operator or third parties</li> <li>• Dirty wash water is exported off site and spread on land either owned by the operator or third parties</li> <li>• Roof water drains to land drains to a ditch acting as a soakaway to the north of the installation, and potentially on to the River Waveney</li> <li>• Sealed and collision-protected feed storage bins</li> <li>• Carcasses are collected daily and stored in a secure container on site prior to disposal contractor in accordance with the Animal By-Products regulations.</li> <li>• Phosphorous and protein levels are reduced over the production and growing cycle by providing different feeds</li> </ul> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions.</p> <p><b>Odour Management Plan</b></p> <p>We, the Environment Agency, have reviewed and approved the Odour Management Plan and consider it</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	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.	
<b>The permit conditions</b>		
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	We have decided that emission limits should be not set in the permit.	✓
<b>Operator Competence</b>		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓
Relevant convictions	<p>The Case Management System and National Enforcement Database have been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p>	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓

## Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

<i>Response received from</i>
Environmental Protection, Suffolk Coastal and Waveney District Councils (received 22/07/16).
<i>Brief summary of issues raised</i>
They confirmed they were not aware of any noise or other amenity issues at this site. No other comments to make.
<i>Summary of actions taken or show how this has been covered</i>
No action required.

<i>Response received from</i>
Public Health England (received 15/08/16).
<i>Brief summary of issues raised</i>
<p>PHE stated that the main emissions of public health significance are emissions to air of bioaerosols, dust including particulate matter and ammonia. Given that there are residential receptors in close proximity of the site, the Environment Agency may wish to consider that any environmental permit issued for this site contains conditions to ensure these emissions do not impact upon public health.</p> <p>Bioaerosols generally decline to background levels within 250 metres of the source. Emissions can be greatly reduced by good practice at the installation. It is expected that the design, construction and management of the installation, particularly taking into account ventilation of the facility, feeding mechanisms and waste management will prevent or minimise emissions of bioaerosols and that this will be controlled through standard permit conditions.</p> <p>It is assumed by PHE that the installation will comply in all respects with the requirements of the permit, all relevant domestic and European legislation, and will use Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health.</p>
<i>Summary of actions taken or show how this has been covered</i>
<p>There are measures included within the permit (the 'Fugitive Emissions' conditions) to provide a level of protection. The use of Best Available Techniques and good practice will ensure minimisation of emissions. Furthermore, 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,</p>

once agreed in writing with the Environment Agency.  
No action required.

The Health and Safety Executive (HSE) and the Director of Public Health were also consulted, however no consultation responses were received.

The application was also advertised on the [www.gov.uk](http://www.gov.uk) website, with a deadline of 11/08/16 for comments, but none were received.