

# Environment Agency permitting decisions

## Bespoke permit

We have decided to grant the permit for **Elm Farm Pig Unit** operated by **WM. Grant (Paull) Limited**

The permit number is **EPR/GP3238VG**

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

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

# Key issues of the decision

## Introduction

The installation is centred on National Grid Reference TA 28436 29649. The new installation is located approximately 500 m to the south of the village of Roos. The new farm will replace an existing Elm Farm pig unit ; the latter is operated below the EPR regulations scheduled activity thresholds for pigs and is hence is currently not permitted.

The farm will operate with a capacity of 4,000 finishing pigs (> 30 Kg in weight); with no pigs within the installation below the 30 kg threshold.

Hence the facility is required to be permitted as a Section 6.9 A (1) (a) (ii) Rearing of pigs intensively in an installation with more than 2,000 places for production pigs (over 30 kg).

The pigs will be located in 4 animal houses and each house with two rooms of 500 pigs. The pigs will come onto the installation at 40 kg and leave at 110 kg.

The new finishing houses are to be fully slatted with frequent slurry removal and have ridge extract ventilation. All houses will be insulated.

Animal feed is delivered weekly and stored in contained steel bins. Diets are formulated to meet the specific needs of the finishing pigs and two diets will be fed to the pigs at different stages of their development with their 13 weeks on site. Water is provided via nipple drinkers designed to minimise water leakage.

Energy efficiency has been incorporated into the installation design with energy efficient fans controlled thermostatically and lower energy lighting.

Dead pigs are removed from the buildings daily, stored in a specific area and the numbers recorded. The dead animals are removed twice per week for off-site disposal.

Slurry is transferred by sealed drainage to an on-site slurry lagoon and slurry is removed from the installation twice a year. The installation has 6 months slurry storage capacity, in compliance with fact that site is within a Nitrate Vulnerable Zone.

The immediate surrounding area to the installation is predominantly utilised for arable farming.

Releases from this type of installation may include releases of ammonia and dust to air, releases to land via soak away and releases of odour and noise.

The installation is not situated within the relevant screening distance of any European statutory sites. There are two Sites of Special Scientific Interest within 5 m screening criteria ; Roos Bog and Kelsey Hill Gravel Pits which are 1.2 km and 4.5 km respectively to the south west of the installation. There are two Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation.

*There is one improvement program included for the upgrade of the existing lagoon slurry storage system in line with our farming guidance.*

## Industrial Emissions Directive (IED)

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

This permit implements the requirements of the EU Directive on Industrial Emissions.

## Environmental Impacts

### Ammonia Emissions

There are no European statutory sites within the relevant screening distances of the installation boundary. There are two Sites of Special Scientific Interest within 5 km screening criteria ; Roos Bog and Kelsey Hill Gravel Pits which are 1.2 km and 4.5 km respectively to the south west of the installation.

There are two Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation. Two other LWS's were initially screened in. However after confirmation in writing from East Riding of Yorkshire Council (dated 17/04/14) the following sites are no longer designated as LWS's:

- Woods Next to Roos Church - Deleted LWS
- Roos Fox Covert - Deleted LWS

### Ammonia Assessment – SSSIs

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 in-combination assessment and/or detailed modelling may be required.

#### **Where sites screen out as <20%**

Screening using our screening assessment dated 01/04/14 indicated that the PCs for the following SSSIs are predicted to be less than 20% Critical Level for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the ammonia screening tool v4.4 are given in the tables below.

A precautionary level of  $1\mu\text{g}/\text{m}^3$  for Critical Level for ammonia has been used during the screen.

Screening indicates that beyond **3,681m** distance, the Process Contribution at conservation sites is less than 20 % of the  $1\mu\text{g}/\text{m}^3$  critical level for ammonia. In this case the SSSI below in Table 1 is beyond this distance.

**TABLE 1– distance from source**

Site	Distance (m)
Kelsey Hill Gravel Pits	4,499

**The PCs for ammonia at these sites has been screened as insignificant.** It is therefore possible to conclude that no significant pollution will occur at these sites and no further assessment is required. Where a CLe of  $1\mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than the 20% insignificance threshold in this circumstance it is not necessary to further consider Nitrogen Deposition or Acidification Critical Load values. In these cases the  $1\mu\text{g}/\text{m}^3$  level used has not been confirmed, but it is precautionary.

#### Roos Bog SSSI

Based on a review of this SSSI with Natural England (June 11<sup>th</sup> 2014) the following applies. Whilst this SSSI has some interesting flora, these are not notified features of the SSSI. In line with our guidance, no critical level will apply to this site. **Hence no further assessment is required.**

### Ammonia assessment - LWS/AW/LNR.

There are two Local Wildlife Sites (LWS) within 2 km of this installation. The following trigger thresholds have been applied for the assessment of these sites.

1. If PC is < 100% of relevant Critical Level or Load, then the farm can be permitted (H1 or ammonia screening tool)
2. If further modelling shows PC <100%, then the farm can be permitted.

#### **Sites that screen out after initial review below**

For the following sites this farm has been screened out at Stage 1, as set out above, using results of the Ammonia Screening Tool version 4.4.

### Sites that screen out from AST screen

For the following sites this farm has been screened out, as set out above, using results of the Ammonia Screening Tool version 4.4 dated 01/04/14. The Process Contribution on the LWS/AW/LNR for ammonia, acid and Nitrogen deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect.

**Table 2 - Ammonia Emissions LWS's and AW**

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
Roos-Halsham Road LWS	3*	1.659	55.3
Woods Plantation LWS		1.701	56.7

\* Critical level values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 01/04/14 based on citation of broadleaved, mixed and yew woodland a CLe of 3 would be appropriate.

**Table 3 – Nitrogen deposition**

Site	Critical Load nutrient enrichment $\text{kg N}/\text{ha}/\text{yr}$	PC $\text{kg N}/\text{ha}/\text{yr}$	PC % Critical Load
Roos-Halsham Road LWS	10*	8.615	86.1
Woods Plantation LWS	10*	8.836	88.4

\*Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 01/04/14 based on citation of broadleaved, mixed and yew woodland citation of wet woodland a CLo of 10 would be appropriate.

**Table 4 - Acidification**

Site	Critical Load acidification $\text{keq}/\text{ha}/\text{yr}$	PC $\text{keq}/\text{ha}/\text{yr}$	PC % Critical Load
Roos-Halsham Road LWS	10.88*	0.615	5.7
Woods Plantation LWS	2.65*	0.631	23.8

\*Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 01/04/14 based on citation of broadleaved, mixed and yew woodland ; values as above.

### Conclusion

For ammonia emissions, nitrogen deposition and acidification the impacts have screened out as assessed above and **no further assessment is required.**

### Groundwater and soil monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain condition 3.1.3 relating to 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 the 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 your 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 initially dated July 2014 and then revised with duly making response is within Appendix 2 of the supplementary application documentation.

It includes completion of H5 template plus an installation boundary with locations of farm buildings, retention pond and slurry lagoons (3 off).

The installation covers approximately 0.5 hectares. The surrounding land is predominantly used for arable and grass farming. There are some small villages in the area.

The site itself is relatively flat or gently undulating, positioned the top of a small rise. The surrounding area is less undulating and typical of the Holderness area. There are no sensitive environmental features nearby. Historically the land has been used for arable farming production.

There are two surface water ditches within 250 metres of the site one to the north and one to the south of the installation.

Our technical review of this specific former land usage is as follows.

- There is no record of installation area land contamination.
- There is no record of any usage of the installation area except for agricultural usage.
- The site is not within a Source Protection Zone.

Therefore the conclusion is there is a low risk of historic groundwater and land contamination due to former activities within installation boundary.

**Therefore, although condition 3.1.3 is included in the permit, no groundwater monitoring will be required at this installation as a result.**

## Odour

There are two sensitive receptors within 400 metres of the installation and therefore an odour management plan has been prepared. These consist of residential properties as follows:

1. A residence 225 metres to the east of the installation boundary (National Grid Reference TA 28706 29650)
2. A residence 300 metres to the east of the installation boundary (National Grid Reference TA 28783 29690)

*There is no history of odour complaints from local residents linked to the existing pig facility. This has been confirmed after discussions with East Riding of Yorkshire council environmental health department dated 01/09/14. The pig farm house improvements to ventilation include high velocity roof fans which will minimise risk of potential odour beyond the installation boundary and optimising emission stack height above ground.*

An Odour Management Plan has been submitted with this application. The OMP consists of:

- Appendix 9 initial OMP submission
- Duly making response with more detailed OMP including list of sensitive receptors, application of Pig Code of Practice Checklist giving more details on appropriate measures for odour pollution minimisation beyond installation boundary plus procedures on odour monitoring and complaints management.
- Final OMP with schedule 5 response including confirmation of pig farm housing high velocity fans with efflux velocity of 11 m/s and stack height of 6 metres to optimise emissions dispersion.

The OMP covers feed selection, feed storage and containment, ventilation design, techniques to manage loading pigs onto wagons to minimise odour, wash down and slurry storage management.

Overall there is the potential for odour pollution from the installation. However the risk of odour pollution beyond the installation boundary is considered insignificant.

## Noise

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The applicant has hence provided a noise management plan in appendix 10 of their supplementary application information and an associated risk assessment in appendix 11.

Operations with the most potential to cause noise nuisance have been assessed as those involving pig loading, farm building ventilation fans, delivery of supplies and materials plus automated feed lines. The noise management plan covers control measures for each of these potential noise hazards.

The management plan includes a commitment to assess noise levels during such activities and optimise vehicles and procedures to minimise noise.

There is no history of noise complaints linked to the existing pig farm below EPR scheduled activity threshold.

Overall there is the potential for noise from the installation beyond the installation boundary. However the risk of noise beyond the installation boundary is considered insignificant.

## Annex 1: decision checklist

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Consultation</b>		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements. The application was sent for consultation with <ul style="list-style-type: none"> <li>• East Riding of Yorkshire Council Planning Department</li> <li>• East Riding of Yorkshire Council Environmental Health Department</li> <li>• HSE</li> </ul>	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. No consultations comments were received. The decision was taken in accordance with our guidance.	✓
<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 EPR RGN 1 Understanding the meaning of operator.	✓
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application. This permit meets IED requirements. This permit implements the requirements of the EU Directive on Industrial Emissions.  See key issues section above for further information.	✓
<b>The site</b>		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. This plan was finalised with the duly making response. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Site condition report	The operator has provided a description of the condition of the site. We consider this description is satisfactory. Please refer to key issues, section 'Groundwater and soil monitoring'. As a result of further assessment, baseline data is not required. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED – guidance and templates (H5).	✓
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant screening distance criteria of the following nature conservation sites.  There are no European statutory sites within relevant screening distances. There are two Sites of Special Scientific Interest within 5 km screening criteria ; Roos Bog and Kelsey Hill Gravel Pits which are 1.2 km and 4.5 km respectively to the south west of the installation.  There are two Local Wildlife Sites (LWS) within 2 km of this installation. Two other LWS's were initially screened in. However after confirmation in writing from East Riding of Yorkshire Council (dated 17/04/14) the following sites are no longer designated as LWS's: <ul style="list-style-type: none"> <li>• Woods Next to Roos Church - Deleted LWS</li> <li>• Roos Fox Covert - Deleted LWS.</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>An ammonia emissions review is included in key issues section of this document.</p> <p>In conclusion installation environmental impacts on the surrounding habitat sites are considered not significant.</p>	
<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 operator has confirmed that all farm facilities and operating techniques will be in compliance with our sector guidance EPR 6.09.</p> <p><b><u>The Operator has proposed the following techniques:</u></b></p> <ul style="list-style-type: none"> <li>• Feed selection is carefully selected with reference to pig's growth curve. Phosphorous and protein levels are altered over the growing.</li> <li>• All pig buildings will be well insulated for optimum animal health and the houses will use high velocity extraction fans to optimise odour dispersion. The finishing rooms will be thoroughly washed and disinfected between batches.</li> <li>• General management ; fully slatted buildings and slurry removed as flow allows to above ground slurry lagoon</li> <li>• Slurry management: slurry is stored within installation for 6 months in compliance with being within a Nitrate Vulnerable Zone.</li> <li>• Fugitive Emission controls include building maintenance, routine building wash downs, use of automatic auger feed transfer to minimise spillages. Feed is stored within enclosed feed bins.</li> <li>• Storage facilities: there are no liquid bulk storage tanks on site. Fuel and disinfectant comes in 25 litre drums and is stored in a dedicated storage area.</li> <li>• Roof water and slurry is transferred via sealed drainage to a retention pond and slurry lagoons respectively.</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.</p> <p>The one exception is the existing slurry lagoon which was utilised for existing non-permitted farm and will be utilised for the new installation. The operator has confirmed that the lagoon capacity of 7,500 m3 is sufficient for the expected 4,000 finishing pigs.</p> <p>The lagoon itself is not currently covered, which is a requirement under our guidance EPR 6.09.</p> <p>In line with our guidance for existing lagoons an improvement program is allowed for this situation (IC1 included within the permit).</p> <p>The operator has committed to covering the lagoon with clay particles by 2016.</p> <p>The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.</p>	✓
<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. These descriptions are specified in the Operating Techniques table in the permit.</p>	✓



Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Operator Competence</b>		
Environment management system (EMS)	<p>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 applicant has chosen to utilise their own management system without external certification.</p> <p>Appendix 3 of the supporting information gives the detail of their EMS covering normal operation, maintenance schedules and records, incidents and abnormal operations, complaints system, accident management, training and provision of competent staff plus site security.</p> <p>The accident management plan is currently being prepared to allow completion prior to facility operation above EPR scheduled activity threshold.</p> <p>The decision was taken in accordance with RGN 5 on Operator Competence.</p>	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓
Financial provision	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.</p> <p>The decision was taken in accordance with RGN 5 : Operator Competence</p>	✓

## 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.**

*No external consultation responses were received.*

This proposal was also publicised on the Environment Agency's website for 4 weeks but no representations were received during this period.