

Permitting decisions

Variation

We have decided to grant the variation (including partial surrender) for Boothby Heath Farm operated by Patrick Dean Limited.

The variation number is EPR/BT4150IX/V005 & S006

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

Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

This decision document provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account
- shows how we have considered the consultation responses

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

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

Key issues of the decision

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is now a separate BAT Conclusions document which will set 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 phosphorus 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 only of BAT compliance for new housing introduced with this variation. 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 34 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

We are satisfied that the operator will comply with all measures relevant to them.

Table 1 sets out a more specific review of the measures the operator is required to apply to ensure compliance with the above key BAT measures.

| Table 1 Measures to ensure compliance with BAT Conclusions | |
|--|--|
| BAT measure | Operator compliance measure |
| BAT 3 - Nutritional management nitrogen excretion | <p>The operator is required to demonstrate they achieve levels of nitrogen excretion below the required BAT-AELs for the following pig types:</p> <p>Weaners (pigs 7 – 30 kg): 4 kg N/animal place/year</p> <p>Fattening pigs (production pigs > 30 kg): 13 kg N/animal place/year</p> <p>by using a mass balance of nitrogen based on the feed intake, dietary content of crude protein and animal performance or an estimation by using manure analysis for total nitrogen content.</p> <p>Table S3.3 of the Permit concerning process monitoring requires the Operator to undertake relevant monitoring that complies with these BAT Conclusions.</p> |
| BAT 4 Nutritional management phosphorus excretion | <p>The operator is required to demonstrate they achieve levels of phosphorus excretion below the required BAT-AELs for the following pig types:</p> <p>Weaners (pigs 7 – 30kg) 2.2 kg P₂O₅ animal place/year</p> <p>Fattening pigs (production pigs > 30 kg): 5.4 kg P₂O₅ animal place/year</p> <p>by using a mass balance of phosphorus based on the feed intake, dietary content of crude protein, total phosphorus and animal performance or an estimation by using manure analysis for total phosphorus content.</p> <p>Table S3.3 of the Permit concerning process monitoring requires the operator to undertake relevant monitoring that complies with these BAT Conclusions.</p> |
| BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorus 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. |

Table 1 Measures to ensure compliance with BAT Conclusions

| BAT measure | Operator compliance measure |
|--|---|
| BAT 26 Monitoring of emissions and process parameters - Odour emissions | The approved OMP includes a commitment that members of staff will monitor odour (sniff test) constantly and will inform management if there is a significant likelihood of odour nuisance, Weather data (wind speed and direction) is also monitored and taken in to consideration in planning work which is likely to create odours. |
| 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 operator is required to report the dust emissions to the Environment Agency annually, this can be completed by calculation using standard dust emissions factors for each type of pig. |
| BAT 30 Ammonia emissions from pig houses | The operator is required to demonstrate they achieve levels of ammonia below the required BAT-AEL for the following pig types: Weaners (pigs up to 7 – 30kg): 0.53 kg NH ₃ /animal place/year (existing housing, solid floor straw system) – The limit will be effective from 21/02/2021. Fattening pigs > 30kg: 2.6 kg NH ₃ /animal place/year (new housing, fully slatted floor with frequent slurry removal) The standard emission factors do not comply with the BAT AELs for some categories of pigs, however additional measures detailed below have been incorporated to ensure compliance. |

More detailed assessment of specific BAT measures

Ammonia emission controls

A BAT Associated Emission Level (AEL) provides us with a performance benchmark to determine whether an activity is BAT.

Ammonia emission controls – BAT conclusion 30

The new BAT conclusions include a set of BAT-AEL's for ammonia emissions to air from animal housing for pigs.

There is a footnote in some of the Ammonia BAT-AELs allowing a higher AEL for existing plant. 'New plant' is defined as plant first permitted at the site of the farm following the publication of the BAT conclusions. 'Existing plant' is defined in the BREF as any plant that is not a 'new plant'. The key phrase is 'first permitted'.

For variations all new housing on existing farms will need to meet the BAT-AEL, while the existing housing will be allowed the less stringent existing plant AEL. The 'existing plant' BAT-AEL will apply indefinitely to any existing housing on any site permitted before 21st February 2017 or at least until the next revision of the BREF.

More detailed assessment of AEL's

Pig housing

The operator has confirmed that the housing systems with fully slatted flooring (FSF) and frequent slurry removal systems meet the following criteria:

- All slurry pits are to be operated with a maximum slurry liquor depth of 800 mm as defined as optimal depth in section 4.7.1.2 of the latest Intensive Farming BREF http://eippcb.jrc.ec.europa.eu/reference/BREF/IRPP/JRC107189_IRPP_Bref_2017_published.pdf, and
- Slurry removal (via vacuum system) frequency of a maximum of 12* weeks. (*The operator has agreed removal every 10 weeks)

The following emission factors were assigned for the ammonia assessment, and are within the BAT AELs:

House 1 – Weaners (7 – 30kg) - Existing

The standard emission factor of 0.53 kg NH₃/animal place/year is applied. This must be complied with by 21/02/2021.

Houses 2, 3 and 4 Finishers (30kg – 120kg) - New

The standard emission factor of 2.60 kg NH₃/animal place/year is applied. This must be complied with by 21/02/2021. Note that whilst houses 2 and 3 are already listed in the permit and in use they were not permitted until after the implementation of the BAT conclusion document, 21st February 2017, so they are regarded as new housing and therefore must immediately comply with the relevant BAT-AELs.

Odour

The changes proposed by this variation include reducing the number of pig housing from 16 to 4. However the maximum pig number capacity will increase from 8144 pigs to 9700 pigs. The site will now house only weaners (7 – 30kg) and finishers (30 – 120kg). This variation includes the addition of a new pig house (House 4), which will house a maximum of 4,400 pigs (30 – 120kg) and will be built to BAT standard so will be designed and operated to minimise fugitive releases of odour. Also pig houses 2 & 3 are relatively new, having been permitted in 2017. These houses replaced a number of smaller and older houses. Therefore whilst maximum pig numbers are increasing, they will mostly be housed in new buildings that are built to BAT standard. We are therefore satisfied that the risk from odour is unlikely to be significantly increased as a result of this variation.

The site currently does not cause odour nuisance at receptors so we are satisfied that the existing odour management plan, which has been reviewed for this variation, is appropriate and the risk of odour pollution beyond the Installation boundary is unlikely to be significant.

Noise

The site has an approved noise management plan, which has been reviewed for this variation. The site has no history of noise complaints. We are satisfied that the changes proposed by this variation will not significantly increase the risk of noise pollution.

Dust and Bioaerosols

The site has an existing bio-aerosol risk assessment which been reviewed for this variation. The site has no history of dust complaints. We are satisfied that the changes proposed by this variation will not significantly increase the risk of dust or bio-aerosols pollution.

Ammonia, Nitrogen deposition and acid deposition

The operator has demonstrated that the housing will meet the relevant NH₃ BAT-AEL.

We have assessed the impact on ammonia emissions as a result of the changes proposed in this variation. The assessment shows that ammonia emissions will be reduced as result of the variation. The following tables show a comparison of the ammonia emissions, Nitrogen deposition:

Ammonia Concentration due to farm (ug/m³)

| Distance (m) from source | 250 | 500 | 1000 | 2000 | 5000 | 10000 |
|--------------------------|--------|-------|-------|-------|-------|-------|
| Current | 13.427 | 4.097 | 1.265 | 0.396 | 0.087 | 0.028 |
| Proposed | 7.062 | 2.334 | 0.780 | 0.263 | 0.063 | 0.022 |

N Deposition due to farm (kg N/ha/yr)

| Distance (m) from source | 250 | 500 | 1000 | 2000 | 5000 | 10000 |
|--------------------------|--------|--------|-------|-------|-------|-------|
| Current | 69.740 | 21.277 | 6.572 | 2.056 | 0.451 | 0.145 |
| Proposed | 36.678 | 12.124 | 4.050 | 1.365 | 0.328 | 0.113 |

Acid deposition due to farm (keq/ha/yr)

| Distance (m) from source | 250 | 500 | 1000 | 2000 | 5000 | 10000 |
|--------------------------|-------|-------|-------|-------|-------|-------|
| Current | 4.981 | 1.520 | 0.469 | 0.147 | 0.032 | 0.010 |
| Proposed | 2.620 | 0.866 | 0.289 | 0.098 | 0.023 | 0.008 |

There are no Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar sites located within 5 kilometres of the installation. There is one Sites of Special Scientific Interest (SSSI) located within 5 km of the installation and eight Local Wildlife Sites (LWS) within 2 km of the installation.

We are satisfied that impact on these sites will be reduced as a result of this variation. Therefore as we have previously concluded no likely damage to the Metheringham Heath Quarry SSSI, this remains the case. With regards to the local wildlife sites we have previously concluded that there will be no significant pollution at these sites, therefore this conclusion remains unchanged as a result of this variation.

Decision checklist

| Aspect considered | Decision |
|--------------------------------------|--|
| Receipt of application | |
| Confidential information | A claim for commercial or industrial confidentiality has not been made. |
| Identifying confidential information | We have not identified information provided as part of the application that we consider to be confidential. |
| Consultation | |
| Consultation | <p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <p>Public Health England</p> <p>Health and Safety Executive</p> <p>North Kesteven District Council</p> <p>Lincolnshire County Council</p> <p>The comments and our responses are summarised in the consultation section.</p> |
| Operator | |
| Control of the facility | We are satisfied that the Applicant (now the Operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits. |
| The facility | |
| The regulated facility | <p>We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility'.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p> |
| The site | |
| 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. The plan is included in the permit.</p> <p>Note the variation also incorporates a partial surrender of the land. The Operator has a submitted a site condition report. We consider this to be low risk surrender.</p> |
| Site condition report | The variation also incorporates a partial surrender of the land. The Operator has a submitted a site condition report. We consider this to be a low risk surrender. |

| Aspect considered | Decision |
|---|---|
| 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>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p> |
| Environmental risk assessment | |
| Environmental risk | <p>We have reviewed the Operator's assessment of the environmental risk from the facility.</p> <p>The Operator's risk assessment is satisfactory.</p> |
| Operating techniques | |
| General operating techniques | <p>We have reviewed the techniques used by the Operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the Sector Guidance Note EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.</p> |
| Odour management | <p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p> |
| Noise management | <p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.</p> <p>We consider that the noise management plan is satisfactory.</p> |
| Permit conditions | |
| Use of conditions other than those from the template | <p>Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.</p> |
| Emission limits | <p>ELVs and equivalent parameters or technical measures [based on BAT] have been set for the following substances:</p> <p>Weaners – Existing – limits to be achieved by 21/02/2021</p> <p>Nitrogen excreted/animal place/year – 4.0kg N/animal place/year</p> <p>Phosphorous excreted/animal place/year – 2.2kg P₂O₃/animal place/year</p> <p>Ammonia/animal/year – 0.53kg NH₃/animal place/year</p> |

| Aspect considered | Decision |
|---|--|
| | <p>Fattening Pigs</p> <p>Nitrogen excreted/animal place/year – 13kg N/animal place/year</p> <p>Phosphorous excreted/animal place/year – 5.4kg P₂O₃/animal place/year</p> <p>Ammonia/animal/year – 2.6kg NH₃/animal place/year</p> |
| Monitoring | <p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>These monitoring requirements have been imposed in order to demonstrate compliance with the relevant BAT EALs. Monitoring will be done using mass balance calculations based on feed intake; and for ammonia and dust it will be calculated using emission factors.</p> <p>We made these decisions in accordance with the relevant technical guidance.</p> |
| Reporting | <p>We have specified reporting in the permit.</p> <p>We made this decision in accordance with the relevant technical guidance.</p> |
| Operator competence | |
| Management system | <p>There is no known reason to consider that the Operator will not have the management system to enable it to comply with the permit conditions.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p> |
| Growth Duty | |
| Section 108 Deregulation Act 2015 – Growth duty | <p>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 vary this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This 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.</p> |

Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

| |
|---|
| Response received from |
| Public Health England |
| Brief summary of issues raised |
| No issues raised. |
| Summary of actions taken or show how this has been covered |
| - |

No representations were received from individual members of the public.