# Permitting decisions

## Partial surrender and variation

We have decided to grant the partial surrender and variation for Barn Farm Chicken Unit (comprised of Poplar Farm and Barn Farm) operated by G. E. Porter & Sons Limited.

The partial surrender and variation number is EPR/FP3739UW/S005.

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:

- 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 partial surrender and variation notice. The introductory note summarises what the variation covers.

# Key issues of the decision

## 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 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 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 only of BAT compliance for new housing introduced with this variation. A BAT review of existing housing compliance with BAT conclusions document has been 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 BAT Compliance and dated Sept 2022.

The following is a more specific review of the measures the Applicant has applied to ensure compliance with the above key BAT measures.

| BAT measure | Applicant compliance measure |
|---|---|
| BAT 3 Nutritional management Nitrogen excretion | The Applicant has confirmed it will demonstrate it achieves levels of Nitrogen excretion below the required BAT-AEL of 0.6 kg N/animal place/year.<br>This confirmation was in response to the Not Duly Made Request for Further Information, received 27/09/22, which has been referenced in Table S1.2 Operating Techniques of the Permit.<br>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.<br>This confirmation was in response to the Not Duly Made Request for Further Information, received 27/09/22, which has been referenced in Table S1.2 Operating techniques of the Permit.<br>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 | Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions |

| BAT measure | Applicant compliance measure |
|---|---|
| parameters<br>- Total nitrogen and phosphorous excretion | |
| BAT 25 Monitoring of emissions and process parameters<br>- 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 27 Monitoring of emissions and process parameters<br>-Dust emissions | Table S3.3 Process monitoring requires the operator to undertake relevant monitoring that complies with these BAT conclusions.<br>This confirmation was in response to the Not Duly Made Request for Further Information, received 27/09/22, which has been referenced in Table S1.2 Operating techniques of the Permit. |
| BAT 32 Ammonia emissions from poultry houses<br>- Broilers | The BAT-AEL to be complied with is 0.01 – 0.08 kg NH3/animal place/year.<br>The Applicant will meet this as the emission factor for broilers is 0.034 kg NH3/animal place/year.<br>The Installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL. |

## 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 Barn Farm Part Surrender Sire Report dated 22 September 2022 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. The site condition report (SCR) for Poplar Farm

dated 20th January 2007 has been reviewed and it covers the small increase to the site boundary. **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 no groundwater monitoring will be required.**

## 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).

Condition 3.3 of the environmental 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, to prevent or where that is not practicable to minimise the odour."

Under section 3.3 of the guidance an Odour Management Plan (OMP) is required to be approved as part of the permitting process, if as is the case here, sensitive receptors (sensitive receptors in this instance excludes properties associated with the farm) are within 400m of the Installation boundary. It is appropriate to require an OMP when such sensitive receptors have been identified within 400m of the installation to prevent, or where that is not practicable, to minimise the risk of pollution from odour emissions.

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

- Feed – manufacture and selection
- Dirty water
- Ventilation system
- Carcass disposal
- House Clean Out
- Used litter
- Operation of the biomass boiler

Conclusion

We have reviewed the OMP in accordance with our guidance on odour management. We consider that the OMP is satisfactory. We are satisfied that the measures outlined in the plan will minimise the risk of odour pollution beyond the installation boundary.

## 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.

There are sensitive receptors within 400 metres of the Installation boundary as stated in section 4.4.2 above. The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation, and further details are provided in section 4.5.2 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 vehicles travelling to and from the farm
- Large vehicles on site
- Small vehicles travelling to and from the farm
- Feed transfer from trailer to bins
- Operation of fans
- Alarm system and stand-by generator
- Operation of the biomass boiler
- Chickens
- Personnel
- Repairs

Conclusion

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.

## Dust and Bio aerosols

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 a level of protection. 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.

There are 2 sensitive receptors within 100m of the Installation boundary at Barn Farm, the nearest sensitive receptor (the nearest point of their assumed property boundary) is approximately 12 metres to the north of the installation boundary. There are no sensitive receptors within 100 metres of Poplar Farm.

Guidance on our website concludes that applicants need to produce and submit a dust and bio aerosol risk assessment with their applications only if there are relevant receptors within 100 metres of their farm, e.g. the farmhouse or farm worker's houses. Details can be found via the link below:

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

As there are receptors within 100m of the Installation, the Applicant was required to submit a dust and bio aerosol risk assessment in this format.

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 Applicant has confirmed the following measures in their operating techniques to reduce dust:

- No on-site milling and mixing
- The feed mill supplying the site is UFAS accredited - only approved raw materials are used and all feed is pelleted and oil coated, reducing the risk of dust
- Closed system delivery of feed from silo to poultry house
- Any spillage of feed around the bin is immediately swept up
- Dust extracted shavings used
- Computer controlled environment with RH controlled between 55-65% keeping balance between dust and odour production
- Litter is carefully placed into trailers positioned at the entrance to each house. When full, the trailer is covered

- There is no routine storage of used litter outside the houses at any time
- Operation of the biomass boiler- The process is enclosed
- Ash storage is sealed

Conclusion

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

## Biomass boiler

The applicant is varying their permit to include 2 biomass boilers with a net rated thermal input of 3.4 MW.

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

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;
- the aggregate boiler net rated thermal input is:

A. less than 0.5MWth, or;

B. less than 1MWth where the stack height is greater than 1 metre above the roof level of adjacent buildings including building housing boiler(s) if relevant (where there are no adjacent buildings, the stack height must be a minimum of 3 metres above ground), and there are:

  - no Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest within 500 metres of the emission point(s);
  - no National Nature Reserves, Local Nature Reserves, ancient woodlands or local wildlife sites within 100 metres of the emission point(s), or;

C. less than 2MWth where, in addition to the above criteria for less than 1MWth boilers, there are:

  - no sensitive receptors within 150 metres of the emission point(s).

This is In line with the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms", an assessment has been undertaken to consider the proposed addition of the biomass boiler(s).

The Environment Agency's risk assessment has shown that the biomass boiler meet the requirements of criteria C above, and are therefore considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

In accordance with the Environment Agency's Air Quality Technical Advisory Guidance 14: "for combustion plants under 5MW, no habitats assessment is required due to the size of combustion plant". Therefore this proposal is considered acceptable and no further assessment is required.

However, the Biomass boilers on EPR Intensive Farms assessment is based on the biomass boiler limit of 250 NOx. The proposed boiler meets the above criteria but the applicant had based emissions on the 500 NOx limit. We used our Air Quality Screening tool to confirm the likely predicted concentrations for nitrogen dioxide at the receptors.

PCs are considered **Insignificant** if:

- the **long-term** process contribution is less than **1%** of the relevant EQS; and
- the **short-term** process contribution is less than **10%** of the relevant EQS.

The **long term** 1% process contribution insignificance threshold is based on the judgements that:

- It is unlikely that an emission at this level will make a significant contribution to air quality;
- The threshold provides a substantial safety margin to protect health and the environment.

The **short term** 10% process contribution insignificance threshold is based on the judgements that:

- spatial and temporal conditions mean that short term process contributions are transient and limited in comparison with long term process contributions;
- the threshold provides a substantial safety margin to protect health and the environment.

Where an emission is screened out in this way, we would normally consider that the Applicant's proposals for the prevention and control of the emission to be BAT. That is because if the impact of the emission is already insignificant, it follows that any further reduction in this emission will also be insignificant.

However, where an emission cannot be screened out as insignificant, it does not mean it will necessarily be significant.

For those pollutants which do not screen out as insignificant, we determine whether exceedances of the relevant EQS are likely. This is done through detailed audit and review of the Applicant's air dispersion modelling taking background concentrations and modelling uncertainties into account.

Assessment of Air Quality Screening tool Outputs

The modelling predictions are summarised in the table below.

**The modelling predicted pollutant concentrations at discreet receptors**

The table below shows the ground level concentrations at the most impacted receptor. Where emissions screen out as insignificant, the background pollutant levels are not considered within the assessment in accordance with our H1 screening process.

| Pollutant | EQS / EAL (µg/m³) | Process Contribution (PC) (µg/m³) | PC as % of EQS / EAL | PEC (µg/m³) (Background + PC) | PEC as % of EQS |
|---|---|---|---|---|---|
| $NO_2$ Annual | 40 | 6.4 | 16 | 26.4 | 66 |
| $NO_2$ Hourly mean | 200 | 52.3 | 26 | 92.3 | 46.2 |

From the table above the annual maximum ground level emissions were over 1% of the EQS at 16% so we also considered the background $NO_2$ levels. When taking these into account there is adequate headroom between the PEC and EAL to indicate that it is unlikely that there will be an exceedance of an EQS. The PEC is 66% of the EQS.

## Ammonia

There are 0 Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar sites located within 5 kilometres of the installation. There are 0 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also 0 Local Wildlife Site (LWS), Ancient Woodland (AW) or Local Nature Reserve (LNR) within 2 km of the installation.

No further assessment is necessary

## Partial surrender

**Pollution risk**

We are satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility.

**Satisfactory state**

We are satisfied that the necessary measures have been taken to return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.

# 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.<br>The decision was taken in accordance with our guidance on confidentiality. |
| **Consultation/Engagement** | |
| Consultation | The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.<br>The application was publicised on the GOV.UK website.<br>We consulted the following organisations:<br>• Director of Public Health & UKHSA (formerly PHE)<br>• Local Authority – Environmental Health<br>• Health and Safety Executive<br>The comments and our responses are summarised in the consultation section.<br>The application was not reconsulted due to the additional biomass boiler as this would be considered as a normal variation as a standalone application and no concerns regarding the original biomass boiler was raised. |
| **The facility** | |
| The regulated facility | The permitted regulated facilities have changed as a result of the partial surrender.<br>• 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) has been removed and surrendered from the permit.<br>We considered the extent and nature of the facility at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’.<br>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. |
| **The site** | |
| Extent of the site of the facility | The extent of the facility has changed as a result of the partial surrender.<br>The operator has provided plans which we consider are satisfactory, showing the extent of the site of the facility. The plan is included in the permit. |
| Site condition report | The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.<br>We are satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility. |

| Aspect considered | Decision |
|---|---|
| | We are satisfied that the necessary measures have been taken to return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation. |
| Biodiversity, heritage, landscape and nature conservation | The application is not within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.<br>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance. |
| **Environmental risk assessment** | |
| Environmental risk | We have reviewed the operator's assessment of the environmental risk from the facility.<br>The operator's risk assessment is satisfactory. |
| **Operating techniques** | |
| General operating techniques | 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.<br>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit. |
| Odour management | We have reviewed the odour management plan in accordance with our guidance on odour management.<br>We consider that the odour management plan is satisfactory. |
| Noise management | We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.<br>We consider that the noise management plan is satisfactory. |
| **Permit conditions** | |
| Updating permit conditions during consolidation | We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permits. |
| Raw materials | We have specified limits and controls on the use of raw materials and fuels.<br>Fuel for biomass boiler units - Biomass chips or pellets comprising virgin timber, straw, miscanthus; grade A waste wood or a combination of these. |
| Emission limits | We have decided that emission limits are required in the permit.<br>BAT-AELs have been added in line with the Intensive Farming sector BAT conclusions document dated 21/02/17. These limits are included in table S3.3 of the permit.<br>Emission Limit Values (ELVs) or equivalent parameters or technical measures in line with MCPD for the Biomass boiler have been added for the following substances:<br>• Oxides of nitrogen as $NO_2$ (mg/m3) |

| Aspect considered | Decision |
|---|---|
| Monitoring | 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. |
| Reporting | We have specified reporting in the permit.<br>We made these decisions in order to ensure compliance with the Intensive Farming sector BAT conclusions document dated 21/02/17 and in accordance with Monitoring stack emissions: low risk MCPs and specified generators Published 16 February 2021. |
| **Operator competence** | |
| Management system | 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. |
| **Growth Duty** | |
| Section 108 Deregulation Act 2015 – Growth duty | 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 this permit.<br><br>Paragraph 1.3 of the guidance says:<br><br>"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."<br><br>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.<br><br>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. |

# Consultation

**Responses from organisations listed in the consultation section**

| **Response received from** |
|---|
| UK Health Security Agency (UKHSA) |
| **Brief summary of issues raised** |
| It is assumed by UKHSA that the installation will comply in all respects with the requirements of the permit, including the application of Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health. |
| **Summary of actions taken or show how this has been covered** |
| 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. |

| **Response received from** |
|---|
| Greater Lincolnshire Director of Public Health |
| **Brief summary of issues raised** |
| It is assumed by that the installation will comply in all respects with the requirements of the permit, including the application of Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health.<br>I would strongly recommend that the position statement on the public health impacts of intensive farming is considered. |
| **Summary of actions taken or show how this has been covered** |
| 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.<br>Noise, Odour and Bio-aerosol management plans are in place due to the proximity of sensitive receptors. |

No comments received:

Local Authority – Environmental Health

Health and Safety Executive