

Permitting decisions

Variation

We have decided to grant the variation for Knockin Hall Farm Poultry Unit operated by Knockin Growers Limited.

The variation number is EPR/FP3036JH/V002.

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 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 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 have sent out a not duly made request requiring the Applicant to confirm that the new installation complies in full with all the BAT conclusion measures.

The Applicant has confirmed their compliance with all BAT conditions for the new housing, in their email reference 'RE: Environmental permitting application EPR/FP3036JH/V002 is not duly made', dated 20th March 2018.

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	<p>The applicant has confirmed it will demonstrate it achieves levels of Nitrogen excretion below the required BAT-AEL of 0.6 kg N/animal place/year by an estimation using manure analysis for total nitrogen content.</p> <p>This confirmation was in response to the not duly made request for further information, received 20/03/18, which has been referenced in table S1.2 operating techniques of the permit.</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> <p>In order to reduce total nitrogen and phosphorus excreted and consequently ammonia emissions while meeting the nutritional needs of the animals the following will be undertaken at the poultry site;</p> <ul style="list-style-type: none">• Diet formulation adapted to specific requirements of the production period, as detailed in the Odour Management Plan and Technical Standards.• Feed specifications are prepared by the feed compounder's nutrition specialist.
BAT 4 Nutritional management	The applicant has confirmed it will demonstrate it achieves levels of Phosphorous

BAT measure	Applicant compliance measure
Phosphorous excretion	<p>excretion below the required BAT-AEL of 0.25 kg P₂O₅ animal place/year by an estimation using manure analysis for total phosphorous content.</p> <p>This confirmation was in response to the not duly made request for further Information, received 20/03/18, which has been referenced in table S1.2 operating techniques of the Permit.</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> <p>The applicant's approach to meet this limit is detailed in BAT 3 above.</p>
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 process monitoring requires the operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 25 Monitoring of emissions and process parameters - Ammonia emissions	Table S3.3 of the permit concerning process monitoring requires the operator to undertake relevant monitoring that complies with these BAT Conclusions.
BAT 26 Monitoring of emissions and process parameters - Odour emissions	<p>The approved OMP includes the following details for on Farm Monitoring and Continual Improvement:</p> <ul style="list-style-type: none"> • From day 25 until the end of the crop, members of staff will conduct olfactory monitoring along the site boundary, first thing in the morning before entering the site, so that the individual is not desensitized. • The above monitoring will increase in frequency in the case that adverse odour is detected. • The results of olfactory monitoring is recorded daily and results will be available for inspection.
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.
BAT 28 Monitoring of emissions and process parameters linked to - Ammonia, Odour and Dust emissions	
BAT 32 Ammonia emissions from poultry houses - Broilers	<p>The BAT-AEL to be complied with is 0.08 kg NH₃/animal place/year.</p> <p>The applicant will meet this as the emission factor for broilers is 0.034 kg NH₃/animal place/year.</p> <p>Ammonia emissions will be reported annually through estimation using emission factors.</p> <p>The installation does not include an air abatement treatment facility, hence the standard emission factor complies with the BAT AEL.</p>

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 32

The new BAT conclusions include a set of BAT-AELs for ammonia emissions to air from animal housing for broilers.

For variations all new housing on existing farms will need to meet 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 Knockin Hall Farm Poultry Unit (dated 19/02/18) 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 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: manufacture and selection of feed, feed delivery and storage, ventilation systems, litter management, carcass disposal and dirty water management.

Odour Management Plan Review

The variation application is to increase the number of bird places at the installation from 100,000 to 220,000 birds and add a further two poultry houses, bringing the total on site to four buildings. As a result of these additional two buildings, the site boundary was extended to the north accordingly. An additional boiler was added to the site, bringing the site total to three boilers with an aggregated thermal input of 1.68MWth.

The closest relevant receptor is Poplar View Barn at SJ 34012 22059 approximately 250m south of the installation boundary.

Therefore, an Odour Management Plan (OMP) is formally required under our guidance.

It is noted that no odour complaints have been received regarding the installation to date.

The OMP (document reference Odour Management Plan v2) dated 15th May 2018, provided in response to Schedule 5 Notice dated 11th May 2018 is considered acceptable having been assessed against the requirements of Integrated Pollution Prevention and Control (IPPC) SRG 6.02 (Farming): Odour Management at Intensive Livestock Installations, the NFU 'Top Tips Guidance and Poultry 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 of the environmental permit and this Odour Management Plan.

There is the potential for odour pollution from this installation, however the operator's compliance with their Odour Management Plan, should minimise the risk of odour pollution beyond the installation boundary. The risk of odour pollution at sensitive receptors beyond the installation boundary is not considered significant. We, the Environment Agency, have reviewed and approved the Odour Management Plan and consider it complies with the requirements of our H4 Odour management guidance note. We agree with the scope and suitability of key measures but this should not be taken as confirmation that the details of equipment specification design, operation and maintenance are suitable and sufficient. That remains the responsibility of the operator.

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 the odour section above. The Operator has provided a noise management plan (NMP) as part of the Application supporting documentation, and further details are provided 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: vehicles travelling to and from the installation, vehicles on site, operation of fans, boiler flue outlets and boilers, alarm systems, chickens, standby generators, personnel and repairs.

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.

Noise Management Plan Review

There is the potential for noise pollution from this installation, however the operator's compliance with their Noise Management Plan, should minimise the risk of odour pollution beyond the installation boundary. The risk of noise pollution at neighbouring properties, which are over 100 metres away from the installation, is therefore not considered significant.

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.

Biomass boilers

The applicant is varying their permit to include three biomass boilers with an aggregated net rated thermal input of 1.68 MWth.

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 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 less than or equal to 4 MWth, and no individual boiler has a net thermal input greater than 1 MWth, and;
- the stack height must be a minimum of 5 metres above the ground (where there are buildings within 25 metres the stack height must be greater than 1 metre above the roof level of buildings within 25 metres (including building housing boiler(s) if relevant) and:
- there are no sensitive receptors within 50 metres of the emission point(s).

This is in line with the Environment Agency's document "Air Quality and Modelling Unit C1127a Biomass firing boilers for intensive poultry rearing", an assessment has been undertaken to consider the proposed addition of the biomass boiler(s).

Our risk assessment has shown that the biomass boilers should meet the requirements of the criteria above, and are, therefore, considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

Ammonia

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

There is one Special Area of Conservation (SAC) 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 is also one Local Wildlife Site (LWS) 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_e) or critical load (CL_o) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded an assessment alone and in combination is required.

- An in combination assessment will be completed to establish the combined PC for all existing farms identified within 10 km of the SAC/Ramsar.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Knockin Hall Farm Poultry Unit will only have a potential impact on the SAC/Ramsar sites with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 3,256 metres of the emission source.

Beyond 3,256 m the PC is less than $0.04\mu\text{g}/\text{m}^3$ (i.e. less than 4% of the precautionary $1\mu\text{g}/\text{m}^3$ critical level) and therefore beyond this distance the PC is insignificant. In this case all SAC/Ramsar sites are beyond this distance (see table 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 4% 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 significant effect

Table 1 – SAC/Ramsar Assessment

Name of SAC/Ramsar	Distance from site (m)
Montgomery Canal SAC	7,478
Midland Meres & Mosses Phase 2 Ramsar	4,085

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 (CL_e) or critical load (CL_o) then the farm can be permitted with no further assessment.
- Where this threshold is exceeded an assessment alone and in combination is required. An in combination assessment will be completed to establish the combined PC for all existing farms identified within 5 km of the SSSI.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Knockin Hall Farm Poultry Unit 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 1,116 metres of the emission source.

Beyond 1,116 metres 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 all SSSI's are beyond this distance (see table 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)
Crofts Mill Pasture SSSI	4,034
Montgomery Canal, Aston Locks – Keeper's Bridge SSSI	3,477
Lin Can Moss SSSI	3,655
Morton Pool and Pasture SSSI	4,085

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 Knockin Hall Farm Poultry Unit will only have a potential impact on the LWS with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 383 metres of the emission source.

Beyond 383 metres the PC is less than $1\mu\text{g}/\text{m}^3$ and therefore beyond this distance the PC is insignificant. In this case the LWS is beyond this distance (see table below) and therefore screen out of any further assessment.

Table 3 – LWS Assessment

Name of LWS	Distance from site (m)
Knockin Heath LWS	2,026

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/Engagement	
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> <ul style="list-style-type: none"> • Health & Safety Executive • Environmental Health - Shropshire County Council • Local Planning Authority – Shropshire County Council <p>No responses were received.</p>
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	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.
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.
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>

Aspect considered	Decision
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> <p>Please see the key issues section for further information on odour, noise, boiler emissions and ammonia emissions.</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 operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>The operating techniques detail that the sheds have high velocity roof fans and nipple drinkers.</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> <p>Please see key issues for further information on the New Intensive Rearing of Poultry or Pigs BAT Conclusions document.</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> <p>Please see key issues for further information.</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> <p>Please see key issues for further information.</p>
Permit conditions	
Updating permit conditions during consolidation	<p>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 permit(s).</p>
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>
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>Fuel for biomass boiler units shall be biomass chips or pellets comprising virgin timber, straw, miscanthus or a combination of these.</p>
Emission limits	<p>ELVs and equivalent parameters or technical measures based on BAT have been</p>

Aspect considered	Decision
	<p>set for the following substances.</p> <ul style="list-style-type: none"> • Nitrogen: 0.6 kg N/animal place/year • Phosphorus: 0.25 kg P₂O₅ animal place/year • Ammonia: 0.08 kg NH₃/animal place/year
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 comply with the relevant BAT measures.</p> <p>See the key issues of the decision section of this decision document for further information. We made these decisions in accordance with BAT conclusion document dated 21st February 2017.</p>
Reporting	<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 reporting requirements on monitoring data and performance parameters have been imposed in order to comply with the conditions of the permit.</p> <p>See the key issues of the decision section of this decision document for further information. We made these decisions in accordance with BAT conclusion document dated 21st February 2017.</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>
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 grant 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

No consultation responses were received from external organisations or members of the public. Please see the [Consultation](#) section of the Decision Checklist for further details.