

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for **Leigh Court Poultry Unit** operated by **Mr Benjamin Troughton**

The permit number is **EPR/YP3932WM**

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

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

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 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 distance 10km of the installation boundary. There are five Sites of Special Scientific Interest within 5 km screening criteria.

There are two Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation including one Local Wildlife Site and one Ancient Woodland.

All the habitat sites screen out based on data in our AST ammonia screening assessment.

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.

Our screening assessment dated 10/12/14 indicated that the PCs for the following SSSIs are predicted to be less than 20% CLe/CLo 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 CLe of $1\mu\text{g}/\text{m}^3$ for ammonia has been used during the screen.

Screening indicates that beyond **1014 m** distance, the PC's at SSSI's are less than 20 % of the $1\mu\text{g}/\text{m}^3$ critical level for ammonia. In this case the SSSI's below in Table 1 are beyond this distance.

TABLE 1 – distance from source

Site	Distance (m)
Ashleworth Ham	2,811
Innsworth Meadow	4,069
Wainlode Cliffe	1,874
Coombe Hill Canal	1,317
Turvey's Piece	4,857

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 PC is assessed to be less than the 20% insignificance threshold in these circumstances it is not necessary to 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.

Ammonia assessment - LWS/AW/LNR.

There are three 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.

For the following sites this farm has been screened out, as set out above, using results of the AST 4.4 dated 10/12/14. The PCs on the LWSs 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. A precautionary CLe of $1\mu\text{g}/\text{m}^3$ for ammonia has been used during the screen.

Screening indicates that beyond **356 m** distance, the PC's at conservation sites are less than 100 % of the $1\mu\text{g}/\text{m}^3$ critical level for ammonia. In this case the other conservation sites below in Table 2 are beyond this distance.

Table 2 – Distance from Source

Site	Distance (m)
Wainlode Pond LWS	1,748
Barrow Wood AW	1,641

Conclusion

The PCs for ammonia at these sites listed above have 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 100% insignificance threshold in this circumstance it is not necessary to 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.

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 is within the application supplementary information.

It includes completion of H5 template plus an installation boundary with locations of farm buildings, drains, diesel tank and dirty water tank.

The surrounding land is predominantly used for arable farming. There are some small villages in the area. There is no record of historic land contamination.

Historically the land has been used for arable crop activities.

The poultry houses are between 10 and 15 metres above sea level. Existing mature hedges and woodland help to minimise the visual intrusion normally associated with poultry units.

The site is not within a flood zone.

Our technical review of this specific 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 Groundwater 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 multiple sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). The closest is approximately 180 metres to the NNE of the installation boundary at NGR 386636, 225697.

Therefore an Odour Management Plan is required under our guidance.

An Odour Management Plan (OMP) is included within the duly making response for this application including a list of sensitive receptors within 400 m of the installation boundary with National Grid References and their distances from installation boundary. The OMP contains an assessment of feed and litter management plus ventilation controls and poultry building design to minimise the risk of odour pollution beyond the installation boundary.

The OMP further references following associated documents:

- Emergency Plan
- Technical Standards
- Routine Maintenance Schedule

Further the OMP covers building clean out and spent litter removal procedures plus a contingency plan to minimise the risk of odour pollution linked to abnormal installation activities and a complaints procedure

A final OMP was submitted dated 18/08/15 including

- Confirmation of responsible person to review OMP periodically
- Ventilation and heating systems/dust emissions – further details on inspections of ventilation systems is included
- Clean out – further clarifications provided including aim to avoid weekends and bank holidays plus clean out limited to during day time hours.

Overall there is the potential for odour pollution from the installation beyond the installation boundary. However the risk of odour beyond the installation boundary is considered insignificant, conditional on operator compliance with the Odour Management Plan.

Noise

There are sensitive receptors within 400 metres of the installation boundary as stated above in the odour review. The operator has hence provided a noise management plan in their supplementary application information.

Operations with the most potential to cause noise nuisance have been assessed as those involving ventilation fans, biomass boiler flue , feed deliveries, feeding systems and broiler catching, building clean outs plus noise emissions from the standby generator, 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.

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 not significant.

Biomass Boilers

The application includes two biomass boilers with thermal input capacity **2.14 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 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;

For poultry:

- A. the aggregate net rated thermal input is less than 0.5MW_{th}, or:
- B. the aggregate boiler net rated thermal input is less than or equal to 4 MW_{th}, and no individual boiler has a thermal input greater than 1 MW_{th}, and;
 - o the stack height must be a minimum of 5 meters above the ground (where there are buildings within 25 meters the stack height must be greater than 1 meter above the roof level of buildings within 25 meters) and:
 - o there are no sensitive receptors within 50 meters of the emission points

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 boilers.

The Environment Agency’s risk assessment has shown that the biomass boilers do not fully meet the requirements of criteria A or B above, as the single biomass boilers are > 1 MW thermal input capacity even though the aggregated total is < 4 MW.

The closest relevant sensitive receptor is approximately 300 metres from the two biomass boilers stacks.

From our experience regarding biomass boilers within poultry farm installations aggregated thermal input capacities of 4 to 5 MW are assessed after check modelling to have negligible environmental impact at sensitive receptors at equivalent distances, as here in this installation, from the stack emissions.

Hence we consider there to be negligible environmental impact from the two biomass boilers for this installation with a total thermal input capacity of 2.14 MW.

Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met
		Yes
Consultation		
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"> • Gloucestershire County Council Environmental Health department • HSE. The farmer’s own property is beyond 100 metres from the installation boundary. As such a dust assessment and associated consultation with Public Health England/Director of Public Health is not required.	✓
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.	✓
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 EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
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.	✓
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. 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.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>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.</p> <p>The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED – guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant screening distance criteria of a number of conservation sites. The key issues section provides a list of these sites. In addition 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>	✓
Environmental Risk Assessment and operating techniques		
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><u>The Operator has proposed the following techniques:</u></p> <ul style="list-style-type: none"> • Feed selection is carefully selected with reference to bird growth. Phosphorous and protein levels are reduced over the growing period. • All poultry buildings will be well insulated for optimum animal health and the houses will use roof fan extraction fan complete with back up gable end fans to optimise odour dispersion. The poultry buildings will be thoroughly washed and disinfected between batches. • Fugitive Emission controls include building maintenance, routine building wash downs, usage of separate clean and water drainage. Feed is stored within enclosed feed bins. • Storage facilities: there is one diesel tank which is bunded. • Roof water is transferred via a grassed area followed by stone trenches acting as attenuation before discharge to a local surface watercourse. The clean yard water is to be discharged via a settling tank acting as attenuation before discharged to the same surface watercourse as that for roof water. • Dirty water is contained in a dedicated underground tank. • A summary of emergency operated procedures are provided in application supplementary information emergency plan and EMS summary including measures to minimise risk of fire linked to biomass boilers and actions in the event of such a fire. Biomass virgin wood maximum storage capacity is 100 tonnes. <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR 6.09 and we consider them to represent appropriate techniques for the facility.</p> <p>The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.</p>	✓
The permit conditions		
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
Operator Competence		
Environment management system (EMS)	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. The supporting information gives the detail of their EMS covering normal operation, maintenance schedules and records, incidents and abnormal operations, complaints system, training and provision of competent staff plus site security. The decision was taken in accordance with RGN 5 on Operator Competence.	✓
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 : Operator Competence	✓

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 with two public responses received during this period.

Response received ; Public Response 1 dated 18/08/15
Brief summary of issues raised
<ul style="list-style-type: none"> • Traffic issues – noise and general traffic issues • Noise from ventilation fans • Odour annoyance
Summary of actions taken or show how this has been covered
<ul style="list-style-type: none"> • Traffic issues – this is a matter for the planning application and not within our scope as the regulator under the Environmental Permitting Regulations • Noise from ventilation fans – The Noise Management Plan includes operator commitment to ventilation fan controls and maintenance to minimise potential noise pollution beyond installation boundaries. Specifically noise is to be assessed twice per day. The permit noise condition 3.4.1 is in place to ensure operation without noise pollution beyond installation boundary. • Odour annoyance. Because there are sensitive receptors within 400 metres the operator has submitted an Odour Management Plan. We have reviewed this plan and required additional measures as outlined in key issues section of this document to minimise risk of odour pollution beyond the installation boundary. The permit odour condition 3.3.1 is in place to ensure operation without noise pollution beyond installation boundary.

Response received: Public Response 2 dated 18/08/15

Brief summary of issues raised

- Traffic
- Biomass boiler
- Noise
- Odour
- Human Health
- Site of Specific Scientific Interest

Summary of actions taken or show how this has been covered

- Traffic issues – this is a matter for the planning application and not within our scope as the regulator under the Environmental Permitting Regulations
- Biomass boiler- The biomass boilers are specific to this installation. We have carried out an environmental impact assessment for these boilers as detailed in key issues above. The conclusion is that we considered the impacts of these farms as not significant. Litter spreading to land will be controlled via a manure management plan as required for permit condition 2.3.5.
- Odour annoyance - Because there are sensitive receptors within 400 metres the operator has submitted an Odour Management Plan. We have reviewed this plan and required additional measures to minimise risk of odour pollution beyond the installation boundary. There is negligible odour pollution generated by a well operated biomass boiler. Specifically the risk of odour pollution for residents using the Leigh Village Hall will also be minimised with the operation of the farm in line with this Odour Management Plan. Otherwise general concerns about the local amenities can be addressed through the planning application. The permit odour condition 3.3.1 is in place to ensure operation without noise pollution beyond installation boundary.
- Noise from ventilation fans – The Noise Management Plan includes operator commitment to ventilation fan controls and maintenance to minimise potential noise pollution beyond installation boundaries. Specifically noise is to be assessed twice per day. From our experience of poultry sites of similar bird numbers with residential properties within 180 to 400 metres of the installation boundary, farm operation in compliance with such a Noise Management Plan minimises the risk of noise pollution beyond the installation boundary. The permit noise condition 3.4.1 is in place to ensure operation without noise pollution beyond installation boundary.
- Human Health. The risk of the new installation ammonia and dust emissions are controlled and minimised via the operating techniques outlined in the operator technical standard document Appendix 5 of the application plus the Odour Management Plan.
- Site of Specific Scientific Interest (SSSI) - We have assessed the impact of the installation on the three SSSI's mentioned in this public response. We conclude that the new installation impact on these three habitat sites is insignificant