

## **Decision Document**

We have decided to grant the permit for Walkhamwood Farm Poultry Unit operated by the Partnership of Stephen Mottershead, Sarah Mottershead and Edward Mottershead.

The permit number is EPR/MP3130RE

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

### **Purpose of this document**

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

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

### **Structure of this document**

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

## **Key Issues**

### **Industrial Emissions Directive (IED)**

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February and came into force on 27 February 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 Walkhamwood Farm Poultry Unit reference HA19179/S.T. included in the Application dated 23/03/2016 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 the Applicant has not provided base line reference data for the soil and groundwater at the site at this stage.

## Ammonia emissions

There are no Special Areas of Conservation SAC, Special Protection Areas (SPA) or Ramsar sites located within 10 kilometres of the installation. There are 2 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also 3 Local Wildlife Sites (LWS),/Ancient Woodlands (AW) within 2 km of the installation.

## 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<sub>e</sub>) or critical load (CL<sub>o</sub>) 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 application.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Walkhamwood Farm Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of 1µg/m<sup>3</sup> if they are within 1,836 metres of the emission source.

Beyond 1,836metres, the PC is less than 0.2µg/m<sup>3</sup> (i.e. less than 20% of the precautionary 1µg/m<sup>3</sup> critical level) and therefore beyond this distance the PC is insignificant. In this case both SSSI's are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of 1µg/m<sup>3</sup> 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 1µg/m<sup>3</sup> 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 1 – SSSI Assessment**

<b>Name of SSSI</b>	<b>Distance from site (m)</b>
Derrington Meadow	4,940
Devil's Hole, Morville	4,855

No further assessment is required.

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

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 (CL<sub>e</sub>) or critical load (CL<sub>o</sub>) then the farm can be permitted with no further assessment.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Walkhamwood Farm Poultry Unit will only have a potential impact on the LWS/AW/LNR sites with a precautionary critical level of 1µg/m<sup>3</sup> if they are within 677metres of the emission source.

Beyond 677m the PC is less than 1µg/m<sup>3</sup> and therefore beyond this distance the PC is insignificant. In this case all LWS/AW/LNRs are beyond this distance (see table below) and therefore screen out of any further assessment.

**Table 2– LWS/AW/LNR Assessment**

<b>Name of LWS/AW/LNR</b>	<b>Distance from site (m)</b>
Edwards Coppice	1,935
Bradley Wood LWS/AW	1,229
Birches Coppice LWS/AW	1,437

No further assessment is necessary.

## **Biomass boiler/poultry litter burner**

The electricity and heat required by the poultry buildings will be provided by the on-site CHP (Combined Heat and Power) Plant which is fuelled by burning poultry litter. The Boiler Plant Room and Litter Fuel storage building is to be sited between poultry buildings 2 and 3. The poultry litter generated from the four poultry sheds will be burnt within the plant. The litter storage and plant room building will be split into two separate sections, with the plant and associated infrastructure in the one section and the other section used for the storage of the poultry litter fuel. The burner is also permitted to burn virgin wood where there is insufficient poultry litter provided the two fuels are not mixed. There is no provision to store virgin wood on-site

The litter storage building is a fully sealed volume with air intake once the litter is in the building. All doors and other openings are fitted with frame seals. The combustion plant draws all its air through intake vents at the back of the building at a rate of 6400m<sup>3</sup> air/hour, maintaining a negative pressure in the building. All air drawn from the building passes through the boiler at over 850°C ensuring all odorous gases are burnt off before passing through a flue

gas ceramic filtration system prior to being release through the Poultry litter burner flue.

The Combined Heat and Power Plant has environmental benefits such as a reduced carbon footprint, along with reduced ammonia emissions which provides benefits for both air and water quality when compared to fossil fuelled heating systems or enterprises relying on electricity delivered via the national grid.

Technical details regarding the CHP are summarised as follows:

- 998kW Biomass Boiler manufactured by Polytechnik and delivering saturated steam to a steam turbine and with a 75kW electricity generator.
- The heat produced in this process is used to heat the poultry buildings.
- The system is designed to meet the peak heat load of the poultry buildings without any additional 'top-up' system.

Provided the heat and electricity produced by the CHP is used within the Installation, we are satisfied it meets the requirements of Regulatory Guidance Note 2 for a Directly Associated Activity because it is integrated into the intensive farming activity of the installation.

Recent amendments to the Animal By-Products Regulations 2011 (ABPR) effectively recognise poultry litter as a by-product where:

- it is not processed in any way (e.g. dried) and;
- it is destined to be burnt as a fuel in a boiler meeting ABPR requirements on the farm where it is produced.

We are satisfied that poultry litter arising from the operation within the installation shall not be in any way processed prior to burning in the CHP and is therefore recognised as a bi-product. Any poultry litter, which is surplus to the requirements of the CHP, will be exported from the site as a waste. The conditions of our Permit do not allow any waste to be brought on to the site, so only poultry litter arising from the on-site operation can be burnt in the CHP.

The Animal and Plant Health Agency (APHA) are the competent authority for regulating the poultry litter burner under the Animal By-Products Regulations 2011 (ABPR). The operator shall need to make a separate application to APHA for an ABPR authorisation. A pre-operational condition (POC 1) has been included to prevent the operation of the CHP prior to receipt of the ABPR permit issued by the APHA.

If the litter is a by-product, all heat from the burner is utilised by the poultry sheds and the proposed litter burner meets the following criteria, no further assessment of the combustion emissions will be required where **all** of the following criteria are met:

- the boiler has an ABPR permit issued by the APHA;
- no individual boiler has a net thermal input greater than 1MWth;
- the aggregated thermal input capacity of all boiler units is less than 5MW net thermal input;
- stack emission velocity at or greater than 20m/s;
- stack height at least 11 m above ground and 1.5m above the roof level of the boiler house and nearby buildings; and
- there are no sensitive receptors within 50m of the emission points(s) where the aggregated net rated thermal input is greater than 2MWth.

Where the above screening criteria are **not** met, a site specific risk assessment and appropriate air quality assessment considering both human health and habitats will need to be submitted with the application. If the emissions to air do not screen out through H1, a detailed modelling assessment will be required. There is the same requirement if any of the heat from the poultry litter burner is utilised by sources other than the poultry houses.

We have assessed the details of the boiler in the application and are satisfied that it complies with the screening criteria except that, at this stage, it does not possess an ABPR permit issued by the APHA. This has been addressed by the inclusion of the pre-operational measure POC 1 in Schedule 1 of Table 1.3 of the permit.

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.

## **Odour**

The Applicant has submitted an Odour Management Plan because there are sensitive receptors within 400 metres of the installation. The nearest sensitive receptor is The Ridges Farm, located approximately 200 metres to the north-west at National Grid Reference SO 64700 88270.

The Odour Management Plan (OMP) includes an odour risk assessment together with details of odour control measures and a complaints procedure. It also includes a map giving locations of all sensitive receptors within 400 metres of the installation boundary, a monitoring regime for odour checks and contingency plans with remedial actions to minimise odour pollution during potential accident scenarios.

We have formally assessed the OMP with respect to our Intensive Farming EPR 6.09 guidance, our Top Tips guidance and Poultry Code of Practice Checklist.

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. However, we are aware the site is currently subject to Local Authority planning approval, which may influence the design and construction of the proposal. A pre-operational condition has been included (POC 2), which requires the Operator to review the Environment Management System and submit to the Environment Agency a summary of any changes together with a reviewed and amended Odour Management plan. The plan shall take into consideration changes arising from the construction of the site and its equipment. The plan shall be accepted as satisfactory following written approval from the Environment Agency.

The Applicant has also submitted an odour impact assessment based on air dispersion modelling using ADMS 5. The assessment concludes that the 98th percentile hourly mean odour concentration at nearby residences would be below the Environment Agency's benchmark for moderately offensive odours, which is a 98th percentile hourly mean of 3.0 ouE/m<sup>3</sup> over a one year period. We have reviewed the Applicant's assessment and agree that the proposed facility is unlikely to result in an exceedance of the 3ouE/m<sup>3</sup> benchmark at all relevant sensitive receptors, provided there are no fugitive emissions or odour sources other than the roof vents.

Overall, there is potential for odour pollution from the installation beyond the installation boundary. However, the risk is not considered significant.

## **Noise**

The Applicant has submitted a Noise Management Plan (NMP) because there are sensitive receptors within 400 metres of the installation. The nearest sensitive receptor is The Ridges Farm, located approximately 200 metres to the north-west at National Grid Reference SO 64700 88270. The plan includes a noise risk assessment, details of noise control measures and a complaints procedure.

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

We have assessed the NMP and are satisfied that the measures the operator intends to put in place are in line with our noise management guidance and will effectively manage noise emissions. We have therefore accepted it as satisfactory to minimise noise pollution beyond the installation boundary and incorporated it into the Permit operating techniques. However, we are aware the site is currently subject to Local Authority planning approval, which may influence the design and construction of the proposal. A pre-operational condition has been included (POC 2), which requires the Operator to review the Environment Management System and submit to the Environment Agency a summary of any changes together with a reviewed and amended Noise Management plan. The plan shall take into consideration changes arising from the construction of the site and its equipment. The plan shall be accepted as satisfactory following written approval from the Environment Agency.

The Applicant has also submitted a Noise Impact Assessment, which includes a range of evaluations at various stages of the bird rearing cycle. The assessment concludes that noise impacts associated with the application would be considered acceptable within an agricultural area such as this, and would not be considered detrimental to the ambient noise climate of the area. We have reviewed the Applicant's assessment and agree that the proposed facility is unlikely to result in a significant impact at all relevant sensitive receptors.

Overall, there is the potential for noise from the installation beyond the installation boundary. However, the risk is considered not significant.



## Annex 1: decision checklist

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
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. The decision was taken in accordance with our guidance on commercial confidentiality.	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>The application was sent for consultation with</p> <ul style="list-style-type: none"> <li>• Shropshire Council Environmental Health Department</li> <li>• Shropshire Council Planning</li> <li>• Health and Safety Executive (HSE).</li> <li>• Food Standards Agency</li> <li>• Natural England</li> <li>• Public Health England/Director of Public Health</li> </ul>	✓
Responses to consultation and web publicising	The web publicising and consultation responses were taken into account in the decision. These are detailed in Annex 2. The decision was taken in accordance with our guidance.	✓
<b>Operator</b>		
Control of the facility	We are satisfied that the applicant (now the Operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on what a legal Operator is.	✓
<b>European Directives</b>		
Applicable directives	All applicable European Directives have been considered in the determination of the application.	✓
<b>The site</b>		
Extent of the site of the facility	The Applicant has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the Applicant is required to carry on the permitted activities within the site boundary.	✓
Site condition report	<p>The Applicant 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>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED – guidance and templates.	
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant screening distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat</p> <p>A full assessment of the application and its potential to affect the site has been carried out as part of the permitting process. 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, environmental impacts on the surrounding habitat sites are considered not significant.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have carried out a risk assessment on behalf of the Applicant</p> <p>We have reviewed the Applicant's assessment of the environmental risk from the facility. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.</p> <p>The critical details of the assessment, including biomass (poultry litter) CHP, odour and noise assessments, are covered in the key issues section of this decision document.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>The Applicant has confirmed that all farm facilities and operating techniques will be in compliance with our sector guidance EPR 6.09.</p> <p><b>General operating procedures include:</b></p> <ul style="list-style-type: none"> <li>• All poultry buildings will be well insulated for optimum animal health and ventilation of the houses monitored and controlled according to requirements of the growing cycle.</li> <li>• Fugitive Emission controls include building maintenance, routine building wash downs, usage of separate clean and water drainage. Feed is stored within enclosed feed bins.</li> <li>• Storage facilities comprise feed bins, a biomass store and diesel tank, which is bunded. There is also a chemical store for small quantities of detergent and pesticides, which is located in one of the store rooms of the poultry unit. The chemical</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>store is a metal cabinet.</p> <ul style="list-style-type: none"> <li>• Roof water and lightly contaminated surface water from yards drain to an on-site attenuation ditch within the south-western installation boundary. This connects to an un-named water course, which discharges into the Rea Brook 1.7 kilometres south of the installation.</li> <li>• Dirty water is contained in 2 of underground tanks ( each of 45m<sup>3</sup> volume).</li> </ul> <p>A review of the odour and noise management plans for this installation is covered in the key issues section of this document.</p> <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. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions.</p>	
<b>The permit conditions</b>		
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template, which was developed in consultation with industry having regard to the relevant legislation.	✓
Incorporating the application	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.	✓
Emission limits	We have decided that emission limits should be not set in the permit.	✓

Applicant Competence		
Environment management system (EMS)	There is no known reason to consider that the Applicant 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. There is a summary of the EMS in application supporting documentation (Appendix 3). This gives the detail of their EMS normal operations, maintenance schedules, abnormal operations, complaints system, training, site security and accident management. The decision was taken in accordance our guidance on what a competent operator is. However, the site remains subject to planning approval and a Pre-operational condition (POC 2) which requires the Operator to	✓
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.	✓

## Annex 2: Consultation and web publicising advertising responses

Response received on 19/08/16 from Shropshire Council
Brief summary of issues raised
<p>Although ventilation has the potential to cause a worst case scenario +12dB at receptors (rating level of 30dB) this relates to noise at the façade of the receptor. At these times residents will be indoors and therefore noise levels internally will be in the region of 20dB through an open window. I would not expect this would have a detrimental impact on individuals if it is audible at all.</p> <p>Day time normal ventilation noise at nearest receptors is predicted to be up to +10dB above background. The rating level for this is 33dB. A good external noise environment is that below 50dB. I do not consider noise at the level stated is likely to have a significant impact on nearest residents although it will be audible.</p> <p>Transitional ventilation is expected to occur infrequently due to climate and weather conditions in the UK and I accept this is likely. When occurring noise levels of up to 37dB in external areas are predicted (including a 5dB penalty). Although audible due to the infrequent occurrence I would not anticipate this would have a significant impact on resident.</p> <p>It has been brought to my attention that a 6m high bund is proposed around the West, South and East of the site. This is welcomed. I would recommend that in order to reduce noise to properties to the north west that bunding extends around the north west of the site to the point where it meets the access route into the site.</p> <p>Due to height of the noise source (7m height) a bund made to above this</p>

height would be recommended (e.g. acoustic fence on top to 8m in today) to ensure no direct line of site and therefore reduce noise impact to as little as possible.

Odour: in respect of odour I have no concerns. I consider that the environmental permit will adequately control odour so as to ensure no significant impact on amenity in the area.

#### Summary of actions taken or show how this has been covered

We have assessed the OMP and NMP and are satisfied that the measures the operator intends to put in place are in line with our guidance and will effectively manage odour and noise. We have therefore accepted them as satisfactory to minimise odour and noise pollution beyond the installation boundary. Please refer to the key issues section for further information.

Permit conditions 3.3.1 and 3.4.1 are included to prevent odour and noise and vibration or where that is not practicable to minimise odour and noise and vibration.

#### Response received on 02/08/16 from Public Health England (PHE) – Centre for Radiation, Chemical and Environmental Hazards

##### Brief summary of issues raised

We recommend that any Environmental Permit issued for this site should contain conditions to ensure that the potential emissions of noise and odour do not impact upon public health.

Based solely on the information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from this proposed facility, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.

##### Summary of actions taken or show how this has been covered

Permit conditions 3.3.1 and 3.4.1 are included to prevent odour and noise and vibration or where that is not practicable to minimise odour and noise and vibration.

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The Applicant has confirmed that all operating techniques will be in compliance with our sector guidance EPR 6.09.

#### **Reponses not received**

The Director of Public Health, Shropshire, the Health and Safety Executive (HSE), Food Standards Agency (FSA) and Local authority planning department were also consulted; however, consultation responses from these parties were not received.

### **Web publicising advertising responses**

This proposal was publicised on the Environment Agency's website for 4 weeks until 18/08/2016 but no representations were received during this period.