

## **Environment Agency permitting decisions**

### **Bespoke permit**

We have decided to grant the permit for Sugden Poultry Unit operated by G.H. and V.E. Davies and Son Limited.

The permit number is EPR/GP3738DQ.

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**

- Description of main features of the installation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

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

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

## Key issues of the decision

### New BAT conclusions review

There are 33 BAT conclusion measures in total within the BAT conclusion document dated 21<sup>st</sup> February 2017.

We have sent out a request for information 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 installations in their response to request for information and dated 12/04/2017.

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

<b>BAT measure</b>	<b>Applicant compliance measure</b>
BAT 3 - Nutritional management Nitrogen excretion	0.6 kg N/animal place/year
BAT 4 - Nutritional management Phosphorous excretion	0.25 kg P <sub>2</sub> O <sub>5</sub> animal place/year
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	
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 32 - Ammonia emissions from poultry houses - Broilers	0.08 kg NH <sub>3</sub> /animal place/year

### Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20<sup>th</sup> February and came into force on 27<sup>th</sup> 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 Sugden Poultry Unit (dated 03/10/2016) 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 they have not provided base line reference data for the soil and groundwater at the site at this stage.**

## Odour

There is the potential for odour pollution from the installation. There is a sensitive receptor within 400 metres of the installation and therefore an Odour Management Plan has been prepared, as required in chapter 3, section 3.3 of EPR 6.09 Sector Guidance Note, *How to comply with your environmental permit for intensive farming*, Version 2, published January 2010 (EPR 6.09 SGN). The nearest residential property is as follows:

1. Powis Villa - residential, located approximately 260m South East of installation.

The residences occupied by people associated with the farm are not considered as sensitive receptors for odour as it is unlikely that odour will be perceived by them as a nuisance. The other property is located approximately 260m from the installation boundary. The general wind direction is from the south west, therefore emissions from the farm will not generally be dispersed in the direction of this property.

An Odour Management Plan (OMP), received 03/10/16 (reference Odour Management Plan), is considered acceptable having been assessed against the requirements of Appendix 4, EPR 6.09 SGN, *Odour management at intensive livestock installations* 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 permit and this OMP. The OMP includes odour control measures, in particular, procedural controls such feed selection, management and storage, ventilation and heating systems, dust and litter management, carcass disposal, house clean out, storage of used litter, washing operations, fugitive emissions, management of dirty water, abnormal operations and waste production and storage.

We are satisfied that operations carried out on the farm will minimise the risk of odour pollution from the installation. The operator's compliance with their OMP, submitted with this application, will minimise the risk of odour pollution beyond the installation boundary and the risk of odour pollution at sensitive receptors beyond the installation boundary is not considered significant.

## Noise

There is the potential for noise pollution from the installation. There is a sensitive receptor within 400 metres of the installation and therefore a noise management plan has been prepared, as required in chapter 3, section 3.4 of EPR 6.09 Sector Guidance Note, *How to comply with your environmental permit for intensive farming*, Version 2, published January 2010 (EPR 6.09 SGN). The nearest residential property is as follows:

1. Powis Villa - residential, located approximately 260m South East of installation.

The residences occupied by people associated with the farm are not considered as sensitive receptors for noise as it is unlikely that noise will be perceived by them as a nuisance. The other property is located approximately 260m from the installation boundary. The general wind direction is from the south west therefore emissions from the farm will not generally be dispersed in the direction of this property.

A Noise Management Plan (NMP), received 03/10/16 (reference Noise Management Plan), is considered acceptable having been assessed against

the requirements of Appendix 5, EPR 6.09 SGN, *Noise management at intensive livestock installations* 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 3.4.1 and this noise management plan.

Operations with the most potential to cause noise nuisance have been assessed as those involving ventilation fans, feed and fuel deliveries, vehicles on site, feeding system, alarm systems, noise from birds during bird catching, clean out, repair of equipment and testing of standby generator. The NMP covers control measures, in particular, regular inspection and maintenance of fans; road and track maintenance; feed and fuel delivery time restrictions; regular inspection and maintenance of feeding system; bird catching techniques; adequate number of lorries scheduled for clean out and for bird catching; and scheduling of routine repairs and testing of standby generator during normal operational hours.

We are satisfied that operations carried out on the farm will minimise the risk of noise from the installation. The operator's compliance with their NMP, submitted with this application, will minimise the risk of noise beyond the installation boundary and it is unlikely to cause a nuisance.

## **Dust/bioaerosol**

There is the potential for dust and bioaerosol emissions from the installation. There is a sensitive receptor within 100 metres of the installation and therefore an bioaerosol risk assessment and dust management plan have been prepared, as required in chapter 3, section 3.2 of EPR 6.09 Sector Guidance Note, *How to comply with your environmental permit for intensive farming*, Version 2, published January 2010 (EPR 6.09 SGN). The nearest sensitive receptor is as follows:

1. Sugden Farm - residential, located adjacent to the South East of installation.

All other properties are greater than 100m from the installation boundary.

The use of Best Available Techniques and good practice will ensure minimisation of emissions. Furthermore, 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.

The general wind direction in the area is from the south west. This means that the nearest receptor is generally not downwind of the installation.

Operations with the most potential to cause dust and bioaerosol emissions have been assessed as those involving feed deliveries, feeding system, management of bedding, litter clean out and transportation, dust from birds during bird catching, vehicle movements on site.

The Dust Management Plan includes measures to prevent the release of dust and reduce the risk of spillages, such as a sealed system for delivery of feed and immediate clean-up of spillages, no milling undertaken on site, use of dust extracted shavings for bedding and computer controlling humidity of bedding and litter to prevent them becoming excessively dry, no double handling of litter during shed cleaning, use of sheeted trailers, keeping areas clean from build-up of dust and good management of the installation.

We are satisfied that operations carried out on the farm will minimise the risk of dust from the installation. The operator's compliance with their Dust Management Plan, submitted with this application, will minimise the potential for dust and bioaerosol emissions beyond the installation boundary.

## **Poultry litter boiler**

The new permit is to include 1 poultry litter boiler with a net rated thermal input of 0.872 MW. The European Union (EU) has amended the Animal By-Products Regulations (ABPR) effectively recognising that poultry manure can be defined as a by-product. From 15 July 2014, unprocessed poultry manure can be burnt in a burner meeting the requirements of the ABPR on the site where the poultry manure is produced. Where this is the case the Animal and Plant Health Agency (APHA) regulate the burner under the ABPR.

Where the burner is installed on an installation under the Environmental Permitting Regulations (EPR) and the heat and electricity is utilised by the farm it is deemed to be a directly associated activity (DAA). The Environment Agency regulate the emissions from the burner within the Environmental Permit for the installation but approval from APHA is required in order to operate the burner at the installation.

The operator has confirmed that the burner meets the provisions of The Animal By-Products (Enforcement) (England) Regulations 2013. In order to gain APHA approval for operating the poultry litter burner and the operational unit/area there must be:

- a combustion plant capable of raising the temperature of the resultant gas to at least 850°C for at least two seconds (or for at least 0.2 seconds at a temperature of 1,100°C)
- equipment to cleanse and disinfect the vehicles leaving the combustion plant area

- documented pest control programme where records must be kept for two years
- records kept by the operator of the regular inspection of the combustion plant and its environment
- the fuel storage area must be fully separated from the combustion plant and the fuel storage bunkers and associated hard standing are to be cleaned and disinfected on a rolling programme in line with the cropping on the farm
- the combustion plant must be equipped with an automatic fuel management system which place the fuel directly in the combustion chamber without further handling as well as an auxiliary burner to be used during start up and shut down to ensure that the temperature (850°C) is maintained
- the fuel must be combusted so that the total organic content of the slags and bottom ash is less than 3%, or their loss on ignition is less than 5% of the dry weight of the material.

The Environment Agency is satisfied that the poultry manure used in the proposed burner at Sudgen Poultry Unit can be classed as an animal by-product. An pre-operational condition has been included within the environmental permit to ensure certification from APHA is in place prior to the operation of the poultry manure burner at this installation.

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

The proposed poultry litter boiler meets all of the above criteria, therefore, further quantitative assessment of air emissions from proposed poultry litter boiler will not be required.

## **Ammonia emissions**

There is one Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are also three Local Wildlife Sites (LWS), and one Ancient Woodland (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 (CLe) or critical load (CLo) 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 Sugden Poultry Unit will only have a potential impact on SSSI site with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 1,210 metres of the emission source.

Beyond 1,210m 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 the SSSI is 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 1 – SSSI Assessment**

<b>Name of SSSI</b>	<b>Distance from site (m)</b>
Allscott Settling Ponds	2,047

No further assessment is required.

### **Ammonia assessment – LWS and AW**

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 Sugden Poultry Unit will only have a potential impact on the LWS/AW sites with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 437 metres of the emission source.

Beyond 437m the PC is less than  $1\mu\text{g}/\text{m}^3$  and therefore beyond this distance the PC is insignificant. In this case most LWS and AW sites are beyond this distance (see table below) and therefore screen out of any further assessment.

**Table 2 – LWS and AW Assessment**

Name of LWS and AW	Distance from site (m)
Rough Marl LWS	1,520
Isombridge Pasture LWS	1,206
Rough Marl AW	1,519

Screening using the ammonia screening tool version 4.5 has determined that the PC on the LWS for ammonia emissions, nitrogen deposition and acid deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect. See results below.

**Table 3 - Ammonia emissions**

Site	Critical level ammonia $\mu\text{g}/\text{m}^3$ [1]	Predicted PC $\mu\text{g}/\text{m}^3$	PC % of critical level
Long Plantation LWS	3	1.456	48.5

Note [1] CLe 3 applied as no protected lichen or bryophytes species were found when checking easimap layer

**Table 4 – Nitrogen deposition**

Site	Critical load kg N/ha/yr [1]	Predicted PC kg N/ha/yr	PC % of critical load
Long Plantation LWS	10	7.56	75.6

Note [1] Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 09/09/2016

**Table 5 – Acid deposition**

Site	Critical load keq/ha/yr [1]	Predicted PC keq/ha/yr	PC % of critical load
Long Plantation LWS	1.71	0.54	31.6

Note [1] Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 09/09/2016

No further assessment is required.

## Annex 1: decision checklist

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

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>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"> <li>• Director of Public Health</li> <li>• Local Authority Environmental Health</li> <li>• Health and Safety Executive</li> </ul>	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
<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>		

Aspect considered	Justification / Detail	Criteria met
		Yes
Extent of the site of the facility	<p>The operator has provided plans which we consider are satisfactory, showing the extent of the site of the facility.</p> <p>Plans are included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p> <p>See <i>Key issues of the decision</i> section of this decision document for further information.</p>	✓
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>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the site.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p> <p>A pre-application ammonia screening assessment has been carried out to assess the impact of ammonia emissions released from the farm, specifically from the associated four poultry sheds and a slurry storage facility on sensitive wildlife sites, habitats.</p> <p>This assessment has considered any Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 10km; any Sites of Special Scientific Interest (SSSI) within 5km and also any National Nature Reserves (NNR), Local Nature Reserves (LNR), ancient woodlands and local wildlife sites (LWS) within 2km of the farm.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>See <i>Key issues of the decision</i> section of this decision document for further information in regards to ammonia emissions.</p> <p>The operator also proposed to burn unprocessed poultry litter in a poultry litter boiler on a farm where it is produced for the generation of heat and hot water by the farm. The combustion emissions from a small litter boiler are not likely to pose a significant risk to the environment or human health providing certain conditions are met. We assessed the litter boiler against our screening criteria.</p> <p>See <i>Key issues of the decision</i> section of this decision document for further information in regards to combustion emissions.</p>	
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>See <i>Key issues of the decision</i> section of this decision document for further information.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>The operating techniques are as follows:</p> <ul style="list-style-type: none"> <li>• the fuel is derived unprocessed poultry litter meeting the animal by-product criteria;</li> <li>• the poultry litter boiler appliance is to be approved by the Animal and Plant Health Agency; and,</li> <li>• no individual boiler has a net thermal input greater than 1MWth.</li> </ul> <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>See <i>Key issues of the decision</i> section of this decision document for further information in regards to odour,</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	noise, dust/bioaerosol, and the new BAT conclusions review.	
<b>The permit conditions</b>		
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>We have specified that only unprocessed poultry litter meeting the criteria as an animal by-product can be used as fuel in the poultry litter boiler.</p> <p>The poultry litter is never to be mixed with, or replaced by, waste, or processed or to be imported from another site.</p> <p>See <i>Key issues of the decision</i> section of this decision document for further information.</p>	✓
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>We have imposed a pre-operational condition to ensure that the operator submits the Animal and Plant Health Authority (APHA) approved certification for the installations' poultry litter boiler.</p>	✓
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.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	<p>We have decided that emission limits should be set for the parameters listed in the permit.</p> <p>The following substances have been identified as being emitted in significant quantities and ELVs based on new BAT conclusion document dated 21<sup>st</sup> February 2017 have been set for those substances:</p> <ul style="list-style-type: none"> <li>• Nitrogen</li> <li>• Phosphorus</li> </ul>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ul style="list-style-type: none"> <li>Ammonia</li> </ul>	
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 <i>Key issues of the decision</i> section of this decision document for further information.</p> <p>We made these decisions in accordance with BAT conclusion document dated 21<sup>st</sup> February 2017.</p>	✓
Reporting	<p>We have specified reporting in the permit.</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>	✓
<b>Operator Competence</b>		
Environment management system	<p>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 decision was taken in accordance with our guidance on what a competent operator is.</p>	✓
Relevant convictions	<p>The Case Management System been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p>	✓

## 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.

Response received on 10/02/17 from
Public Health England (PHE)
Brief summary of issues raised
Public Health England has no significant concerns regarding risk to health of the local population from the proposed activity, 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.  PHE recommends that any Environmental Permit issued for this site should contain conditions to ensure that the following potential emissions do not impact upon public health: fugitive emissions and odour.
Summary of actions taken or show how this has been covered
Conditions 3.1.1., 3.2.1., 3.3.1., and 3.4.1., concerning point source emissions, fugitive emissions, odour and noise are included in permit.

### Responses not received

The Director of Public Health, Local Authority - Environmental Health and Health and Safety Executive (HSE) were also consulted; however, consultation responses from these parties were not received.