

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for **Smeaton Wood Farm North Site** operated by **Smeaton Woods Limited**.

The permit number is **EPR/VP3239RD**

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

Overview of installation is as follows:

The installation is centred on National Grid Reference SJ 59344 46961. The new installation is located approximately 600 m South of Wrenbury-cum-Firth and 1.7 km approximately west of Aston.

The installation is operated by Smeaton Wood Limited. The installation is a new facility and currently a green field site.

The farm will operate with a capacity of **180,000** broilers and include four poultry buildings.

Hence the facility is required to be permitted as a scheduled activity under Environmental Permitting Regulations as follows;

Section 6.9 A (1) (a) (i) Rearing of poultry intensively in an installation with more than 40,000 places

Poultry house heating is provided via the usage of one biomass boiler utilising as fuel, virgin wood and grade A waste wood. In addition there is a back-up LPG heater.

The usage of grade A waste wood in a biomass boiler with a capacity > 50 kg/hr leads to this operation falling under a scheduled activity as follows:

Scheduled activity 5.1 (B)(a)(v) 'The incineration in a small waste incineration plant with an aggregated capacity of 50kgs or more per hour of the following waste – wood waste with the exception of waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings'

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 three 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 four Local Wildlife Sites (LWS) / Ancient Woodland / Local Nature Reserves within 2 km of this installation all of which are LWS's.

All the habitat sites screen out based on data in our AST ammonia screening assessment, dated 13/11/15.

Ammonia Assessment – SAC / SPA / Ramsar sites

The following trigger thresholds have been designated for assessment of European sites including Ramsar sites.

- If the Process Contribution (PC) is below 4% 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 overlapping in combination assessment will be completed where existing farms are identified within 10km of the application.

Initial screening using the Ammonia Screening Tool v4.4 dated 13/11/15 indicated that the PCs for the following European sites are predicted to be less than 4 % Critical Level for ammonia, acid and N deposition therefore it is possible to conclude no damage. The results of the ammonia screening tool v 4.4 are given in the tables below. A precautionary level of $1\mu\text{g}/\text{m}^3$ for the critical level of ammonia has been used for the screening.

The screening indicates that beyond **3,211 m** distance, the Process Contribution at the European sites is less than 4 % of the $1\mu\text{g}/\text{m}^3$ critical level for ammonia. In this case the European Sites below in Table 1 are beyond this distance.

Table 1 – distance from source

Site	Distance (m)
Brown Moss SAC	7,707
Midland Meres and Mosses Phase 2 (Ramsar)	3,803
Midland Meres and Mosses Phase 1 (Ramsar)	4,362

Conclusion

The PCs for ammonia at these sites 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 PC is assessed to be less than the 4 % 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 – 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.

Initial screening using the Ammonia Screening Tool v4.4 dated 13/11/15 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 screening.

Screening indicates that beyond **1,123 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 2 are beyond this distance.

Table 2 – distance from source

Site	Distance (m)
Comber Mere	2,066
Oss Mere	3,803
Norbury Meres	3,871
Quoisley Meres	4,262
Sound Heath	2,769

Conclusion

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 four 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 Ammonia screening Tool 4.4 dated 13/11/15. 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 **393 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 3 are beyond this distance.

Table 3 – distance from source

Site	Distance (m)
Marley Moss	1,781
Combermere Big Wood	1,850
Newhall Cut	1,928
Shropshire Union Canal Burland to Marbury	963

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 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 no sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). The closest sensitive receptors include Pinsley Green Cottages which is approximately 450 metres to

the west of the installation boundary (National Grid Reference SJ 58877 46800). There is also housing to the north of the site on Sandfield Avenue (National Grid Reference SJ 59548 47426) which is also approximately 450 metres from the installation boundary.

In accordance with our guidance EPR 6.09, an Odour Management Plan, is not required when sensitive receptors are beyond 400 metres.

Despite this an Odour Management Plan (OMP) is included within the application supporting information. It includes an odour risk assessment, details of odour control measures and complaints procedure.

We have not formally assessed the OMP, because it is not required based on our guidance as stated above.

In determining the Application we have considered the following documents: -

- The Environmental Impact Assessment submitted with the planning application (There is an odour impact assessment, dated June 2014, within the Environmental Impact Assessment (EIA))
- Odour modelling results at all sensitive receptors modelled are less than 2 odour units (2 oue/m^3) below our H4 Odour Guidance benchmark for Intensive Farming of 3 odour units (3 oue/m^3) at the 98 percentile. Hence the risk of odour pollution at such sensitive receptors is considered not significant.

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 not considered significant

Noise

There are no sensitive receptors within 400 metres of the installation (excluding the farmers own residential property). *In accordance with our guidance EPR 6.09, a Noise Management Plan, is not required when sensitive receptors are beyond 400 metres.*

Despite this a Noise Management Plan (NMP) is included within the application supporting information. It includes a noise risk assessment, details of noise control measures and complaints procedure.

Operations with the most potential to cause noise nuisance have been assessed as those involving vehicle movements, ventilation fans, 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 not formally assessed the NMP, because it is not formally required based on our guidance as stated above.

In determining the Application we have considered the following documents: -

- The Environmental Impact Assessment submitted with the planning application (which also formed part of the Environmental Permit Application). There is a noise impact assessment, May 2014, the Environmental Impact Assessment (EIA).
- Noise modelling has been carried out in line with BS4142:2014 and impacts are assessed as of marginal significance only. This is based on usage of extract fan attenuators which has been guaranteed through a request for information response dated 02/12/15 and is included as formal operating techniques within permit table S1.2. This is also a local council planning condition.

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 one biomass boiler with a thermal input capacity of **1.3 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;
 - 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;

- 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 boiler is > 1 MW thermal input capacity even though the aggregated total is < 4 MW. All the other criteria are complied with for option B, except for single biomass boiler > 1 MW thermal input.

The closest relevant sensitive receptor is over approximately 500 metres from the biomass boiler stack.

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 one biomass boiler for this installation with a total thermal input capacity of 1.3 MW, only marginally above 1MW thermal input criteria and the distance between closest sensitive receptor and biomass boiler being greater than 500 metres.

Waste wood usage within the biomass boiler

The application states that virgin wood, grade A waste wood or a mixture of the two will be utilised as fuel within the biomass boiler. Where virgin and waste wood are mixed the fuel is all considered a waste.

The waste wood and virgin wood will all be stored in one single location, marked on application site drainage plan.

The total annual biomass consumption for the biomass boiler is 500 tonnes per annum and the maximum storage level of waste wood is estimated at 30 tonnes.

As the activity does not meet the criteria of a U4 waste exemption it will fall under section 5.1 (B) (a) (v) of the Environmental Permitting Regulations ‘*The incineration in a small waste incineration plant with an aggregated capacity of 50kgs or more per hour of the following waste – wood waste with the exception of waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings*’.

The applicant duly making response confirmed that the biomass boiler capacity is at least 79 kg/hour and therefore operation with waste wood as a fuel is a scheduled activity under activity reference detailed above.

The Operator has provided a site specific description of the waste source, the European waste code and procedures to ensure that only grade A waste wood will be accepted.

The operator will only be permitted to accept this waste type. We are satisfied that the waste wood is from a manufacturing source and that it will not be contaminated.

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
Receipt of submission		
Confidential information	A claim for commercial or industrial confidentiality has not been made	✓
Consultation		
Scope of consultation	<p>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.</p> <p>The application was sent for consultation with</p> <ul style="list-style-type: none"> • Cheshire East Environmental Health department • HSE. <p>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.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. No comments or points of concern were received from the consultation responses. 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.	✓
Site condition report	The operator has provided a description of the condition of the site. 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. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED – guidance and templates (H5).	✓
Biodiversity, Heritage, Landscape and Nature Conservation	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. In conclusion installation environmental impacts on the surrounding habitat sites are considered not significant. An appendix 11 dated 25/11/15 has been sent to Natural England for information only for the relevant European Sites.	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The operator has confirmed that all farm facilities and operating techniques will be in compliance with our sector guidance EPR 6.09. <u>The Operator has proposed the following techniques:</u> <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 high velocity 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. 	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<ul style="list-style-type: none"> Roof water is transferred via French drains to an unlined attenuation pond. Both French drains and attenuation pond are acting as soakaways. The lightly contaminated yard water is discharged via drainage pipe work to the same attenuation pond. The attenuation pond has an overflow discharge to a ditch to the north of the installation, ultimately discharging to the River Weaver. 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 30 tonnes. The maximum capacity for storage of a mixture of virgin wood and grade A waste wood is also 30 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. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.</p>	
The permit conditions		
Raw materials	We have specified limits and controls on the use of raw materials and fuels. For the biomass boilers we have specified that only virgin timber (including wood chips and pellets), straw, miscanthus or a combination of these. We have also specified waste wood waste codes in the permit.	✓
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. The operator has accepted the new modern conditions within the consolidated permit variation.	✓
Emission limits	No emission limits have been included in this permit.	✓
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. There is a summary of the EMS in supporting documentation (document 4) 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 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.

There was only one consultation response, from Cheshire East Council Environmental Health dated 02/12/15. They confirmed they had no concerns or comments regarding the application.

This proposal was also publicised on the Environment Agency's website for 4 weeks with no public responses received during this period.