

Permitting decisions

Bespoke permit

We have decided to grant the permit for Big Drome Farm (previously known as Manor Farm, see Key Issues section below) operated by W & A C Rose (Farms) Limited.

The permit number is EPR/XP3130DC.

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

Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account
- shows how we have considered the consultation responses.

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

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

Key issues of the decision

Installation name change

The operator requested (on 13th July 2017) the installation name be changed from Manor Farm to Big Drome Farm. We have accepted this change.

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 Big Drome Farm (dated 9th February 2017) 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.**

New Intensive Rearing of Poultry or Pigs BAT Conclusions document

The new Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of Poultry or Pigs (IRPP) was published on the 21st February 2017. There is now a separate BAT Conclusions document which will set out the standards that permitted farms will have to meet.

The BAT Conclusions document is as per the following link

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN>

Now the BAT Conclusions are published all new installation farming permits issued after the 21st February 2017 must be compliant in full from the first day of operation.

There are some new requirements for permit holders. The conclusions include BAT Associated Emission Levels for ammonia emissions which will apply to the majority of permits, as well as BAT associated levels for nitrogen and phosphorous excretion.

For some types of rearing practices stricter standards will apply to farms and housing permitted after the new BAT Conclusions are published.

New BAT conclusions review

There are 34 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

We have sent out a Schedule 5 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 installation in their application and supporting documents and information supplied on BAT requirements provided in response to a Schedule 5 notice, received on 01/06/17.

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

BAT measure	Applicant compliance measure
BAT 3 - Nutritional management Nitrogen excretion	0.6kg/N/animal place/year The operator confirms they will be able to meet the AEL. Protein is reduced over the growing cycle by providing different feeds.
BAT 4 Nutritional management Phosphorous excretion	0.25kg/P ₂ O ₅ /animal place/year The operator confirms they will be able to meet the AEL. Phosphorous levels in rations are reduced over the production cycle.
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 26 Monitoring of emissions and process parameters - Odour emissions	Visual (and nasal) inspections of potentially odourous activities.
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 measure	Applicant compliance measure
BAT 32 Ammonia emissions from poultry houses - Broilers	0.08 kgNH ₃ /animal place/ year AEL The applicant has confirmed they will meet the AEL. The Ammonia Impact Assessment showed the activity screened out.

Ammonia emission controls – BAT conclusion 32

The new BAT conclusions include a set of BAT-AEL's for ammonia emissions to air from animal housing for broilers. All new bespoke applications issued after the 21st February will now need to meet the BAT-AEL.

Odour

There are sensitive receptors within 400 metres of the installation and therefore an odour management plan has been prepared, as required in Chapter 3, Section 3.3 of guidance SGN "How to comply - Intensive Farming - The EPR Sector Guidance Note 6.09 for intensive pig and poultry farmers, Version 2", published January 2010 (SGN EPR 6.09). The nearest receptors are as follows:

1. Range (disused) - commercial, located approximately 210m north
2. Warehouse - commercial, located approximately 245m west
3. The Barn - commercial, located approximately 352m west

An Odour Management Plan (OMP), provided with the application (reference Odour Management Plan), is considered acceptable having been assessed against the requirements of IPPC SRG 6.02 "(Farming): 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 and this OMP. The OMP includes odour control measures, in particular, procedural controls such as feed selection, feed delivery and storage, ventilation techniques, carcass disposal and storage, litter management, management of drinking water systems, bird movement on and off site, house washing operations, and unexpected odour events. The OMP is required to be reviewed at least every 4 years and/or in the instance that a complaint is received, whichever is the sooner.

We are satisfied that operations carried out on the farm will minimise the risk of odour pollution from the installation. There is the potential for 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 are sensitive receptors within 400 metres of the installation boundary as stated above in the odour section above. Therefore, the applicant has provided a noise management plan (NMP) as part of the application supporting documentation (reference Noise Management Plan).

Operations with the most potential to cause noise nuisance have been assessed as those involving delivery vehicles travelling to and from the farm, vehicles on site, feed transfer, testing of the alarm system, noise from birds on site, standby generator, maintenance and repairs. The noise management plan covers control measures for each of these potential noise hazards.

We are satisfied that operations carried out on the farm will minimise the risk of noise pollution from the installation. There is the potential for noise pollution from the installation. The operator's compliance with their NMP, submitted with this application, will minimise the risk of noise pollution beyond the installation

boundary and the risk of noise pollution at sensitive receptors beyond the installation boundary is not considered significant.

Biomass boilers

The application includes 2 biomass boilers with a net rated thermal input of 2.094 MWth.

The Environment Agency has assessed the pollution risks and has concluded that air emissions from small biomass boilers are not likely to pose a significant risk to the environment or human health providing certain conditions are met. Therefore a quantitative assessment of air emissions will not be required for poultry sites where:

- the fuel will be derived from virgin timber, miscanthus or straw, and;
- the biomass boiler appliance and installation meets the technical criteria to be eligible for the Renewable Heat Incentive, and;
- the aggregate boiler net rated thermal input is less than or equal to 4 MWth, and no individual boiler has a net thermal input greater than 1 MWth, and;
- the stack height must be a minimum of 5 metres above the ground (where there are buildings within 25 metres the stack height must be greater than 1 metre above the roof level of buildings within 25 metres) and;
- there are no sensitive receptors within 50 metres of the emission point(s).

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

For poultry sites which do not screen out through the above criteria, a further screening is applied:

- the aggregate boiler net rated thermal input is:
 - A. less than 0.5MWth, or;
 - B. less than 1MWth where the stack height is greater than 1 metre above the roof level of adjacent buildings (where there are no adjacent buildings, the stack height must be a minimum of 3 metres above ground), and there are:
 - no Special Areas of Conservation, Special Protection Areas, Ramsar sites or Sites of Special Scientific Interest within 500 metres of the emission point(s);
 - no National Nature Reserves, Local Nature Reserves, ancient woodlands or local wildlife sites within 100 metres of the emission point(s), or;
 - C. less than 2MWth where, in addition to the above criteria for less than 1MWth boilers, there are:
 - no sensitive receptors within 150 metres of the emission point(s).

In line with the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms", 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** meet the requirements of criteria above as the accumulated thermal input >2MWth, and therefore further assessment is required.

Environment Agency Modelling

An assessment has been undertaken by the Environment Agency using the Air Quality Monitoring and Assessment Unit (AQMAU) Screening Tool Version 5.2, to screen the 2 biomass boilers.

The screening tool was run to calculate the process contribution (PC) from the boilers at the most sensitive local receptor illustrated above. The most sensitive local receptor was identified as 'The Range' to the north of the site. The biomass boilers were screened with the following input parameters:

Flue diameter	0.4 m
Stack height (from ground level)	10 m
Adjacent building height	5.5 m
Flue minimum temperature	75°C

Total thermal input capacity in MW	2.094 MW
Exit velocity in m/sec	6.2
NO _x concentration in mg/Nm ³	152
CO concentration in mg/Nm ³	28
PM ₁₀ (dust) concentration in mg/Nm ³	34
The exact co-ordinates of the stacks	496418, 384347
The exact co-ordinates of the centre of the farm	496590, 384303
The exact co-ordinates of the worst case sensitive receptor	496410, 384607

The AQMAU screening tool was used to assess the impact of carbon monoxide (CO), nitrogen dioxide (NO₂) and particulates (PM₁₀) emissions from the proposed boiler units on the nearby sensitive receptors. Sulphur dioxide (SO₂) has not been assessed due to the boiler fuel being clean woodchip which is likely to contain very little or no sulphur.

In this assessment the individual PC impact values were combined together by use of the AQMAU screening tool (to give a total cumulative PC from the sixteen boilers) and compared to the relevant environmental standards in the following way. In line with Environment Agency guidance H1 Annex F, process contributions can be considered insignificant if:

- the long term process contribution is <1% of the long term environmental standard; and,
- the short term process contribution is <10% of the short term environmental standard.

Maximum off-site ground level impacts at the most significantly impacted human receptor locations (The Range) are summarised in the tables below.

Table 1 - Predicted Short Term Impacts

Pollutant	EQS / EAL µg/m ³	Process Contribution (PC) µg/m ³	PC as % of EQS / EAL [1] [2]	Back-ground Conc. µg/m ³	Predicted Environmental Concentration (PEC) µg/m ³	PEC as % of EQS/EAL
NO ₂ (1 hr)	200	8.70	4.3%			
PM ₁₀ (24 hr)	50	0.41	0.8%			
CO (1 hr)	10,000	5.21	0.1%			

Note [1] Representative of worst case impact at The Range.

Note [2] Where the PC is demonstrated to be less than 10% of the short term EQS/EAL, a level below which we consider to indicate insignificant impact, further consideration of the PEC is not required.

Table 2 - Predicted Long Term Impacts

Pollutant	EQS / EAL µg/m ³	PC as % of EQS / EAL [1]	PC as % of EQS / EAL [2]	Background Conc. µg/m ³	Predicted Environmental Concentration (PEC) µg/m ³	PEC as % of EQS / EAL [4]
NO ₂	40	0.60	1.5%	12.68	13.28	33.2%
PM ₁₀	40	0.13	0.3%			

Note [1] Representative of worst case impact at The Range.

- Note [2] Where the PC is demonstrated to be less than 1% of the long term EAL, a level below which we consider to indicate insignificant impact, further consideration of the PEC is not required.
- Note [3] The background concentration is taken as twice the long term background level for Short Term Environmental Quality Standard (EQS) / Environmental Assessment Level (EAL) standards referenced to an hourly averaging value.
- Note [4] The Predicted Environmental Concentration (PEC) was calculated for substances that are not screened out for short and long term environmental impact. PEC is the PC plus background. Where the PEC is demonstrated to be greater than 70% of the long term EAL, a level below which we consider to indicate as not being a significant impact, more detailed assessment is required.

Screening out emissions which are insignificant

In accordance with Environment Agency guidance, the short term impact of NO₂, PM₁₀ and CO emissions is considered insignificant as the PC from the boilers is <10% of the short term EQS/EAL.

The long term impact of PM₁₀ emissions is also considered insignificant as the PC from the boilers is <10% of the short term EQS/EAL.

Emissions unlikely to give rise to significant pollution

Long term NO₂ (which was not screened out as insignificant) has been assessed as being unlikely to give rise to significant pollution in that there is adequate headroom between the predicted environmental concentration (PEC) and the relevant EQS (taking expected modelling uncertainties into account) of both the long term and short term EQS/EAL.

For these emissions we have considered the headroom between their PECs and the relevant EQS/EAL standards relative to the predicted PC value for the emission.

From this analysis we consider that there will not be any exceedance of an EQS/EAL or any significant pollution caused by the operation of the installation.

Conclusion

All emissions either screen out as being considered insignificant, or where they do not screen out as insignificant are considered unlikely to give rise to an exceedance of any environmental standard or cause significant pollution.

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.

Ammonia

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

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

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_e) or critical load (CL_o) then the farm can be permitted with no further assessment.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Big Drone Farm will only have a potential impact on the Local Wildlife Sites with a precautionary critical level of 1µg/m³ if they are within 560m metres of the emission source

Beyond 560m the PC is less than $1\mu\text{g}/\text{m}^3$ and therefore beyond this distance the PC is insignificant. In this case all LWSs are beyond this distance (see table below) and therefore screen out of any further assessment.

Table 1 – LWS Assessment

Name of SAC/SPA/Ramsar	Distance from site (m)
Ingham Cliff Farm Road Verge	1,341
Ingham Sheepwash	1,712
Ermine Street, Cammeringham	1,804

No further assessment is necessary.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Consultation	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: Local Authority Planning Department Local Authority Environmental Health Health and Safety Executive No responses were received.
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 our guidance on legal operator for environmental permits.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our

Aspect considered	Decision
	<p>guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.</p> <p>The land around the site is predominantly used for arable and grass farming. No pollution history has been noted. The site is currently greenfield (NB the site is part of a former WWII airfield).</p> <p>The site is on a Lincolnshire Limestone Principal Aquifer Source Protection Zone two.</p>
<p>Biodiversity, heritage, landscape and nature conservation</p>	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p> <p>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.</p>
Environmental risk assessment	
<p>Environmental risk</p>	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p>
Operating techniques	
<p>General operating techniques</p>	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>The operating techniques for the biomass boilers are as follows:</p> <ul style="list-style-type: none"> • the fuel is derived from virgin timber, • the biomass boiler appliance and it's installation meets the technical criteria to be eligible for the Renewable Heat Incentive; and • the stacks are 1m or more higher than the apex of the adjacent buildings <p>The poultry housing meets BAT requirements. The operator has confirmed they will meet the new BAT conclusions. For further information refer to the Key Issues section. The proposed techniques for priorities for control are in line with the benchmark levels contained in the Sector Guidance Note</p>

Aspect considered	Decision
	EPR6.09 and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management. See the key issues section for further information.</p> <p>We consider that the odour management plan is satisfactory.</p>
Noise management	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control. See the key issues section for further information.</p> <p>We consider that the noise management plan is satisfactory.</p>
Permit conditions	
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.
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>We have specified that only virgin timber (including wood chips and pellets), straw, miscanthus or a combination of these, are acceptable. These materials are never to be mixed with or replaced by, waste.</p>
Emission limits	<p>ELVs and/or equivalent parameters or technical measures [based on BAT] have been set for the following substances.</p> <p>Total Nitrogen (N) excretion 0.6kg/animal place/year</p> <p>Total Phosphorous (P₂O₅) excretion 0.25kg/animal place/year</p> <p>Total Ammonia (NH₃) emissions 0.08kg/animal place/year</p>
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. See key issues for further information.</p>
Reporting	We have specified reporting in the permit. We made these decisions in accordance with the relevant BAT measures. See key issues for further information.
Operator competence	
Management system	<p>There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>

Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses not received

The Health and Safety Executive, Local Authority Environment Health Department, and Local Authority Planning Department were consulted. No consultation responses were received from these parties and no representations were made following publication of the notice on Gov.UK.