

## **Environment Agency permitting decisions**

### **Bespoke permit**

We have decided to grant the permit for Campney Grange Farm Poultry Unit operated by Mr Henry Ivor Moreton, Mrs Sally-Anne Moreton & Mr George Ivor Moreton (trading as GI & SA Moreton).

The permit number is EPR/JP3230DP/A001

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

## **Description of the main features of the Installation**

Campney Grange Farm Poultry is situated off Campney Lane about 1.3 km south west of Bucknall, Lincolnshire. The installation is approximately centred on National Grid Reference TF 16180 67204. The land around the site is predominantly used for arable agriculture.

The four poultry houses provide a combined capacity for 240,000 broiler bird places. They are fully insulated to reduce condensation and heat lost. The sheds are ventilated by side inlets and high velocity ridge extraction fans and equipped with non-leaking drinking systems.

The chicks will be brought in at a day old from a hatchery and reared for approximately 40 days. At the end of each cycle the sheds are de-populated, washed and disinfected for the next cycle. There is average of seven crops per annum with a turnaround of 5 to 7 days between crops.

The drainage from sheds and wash water are directed to the underground wash water tank. Diverter valves are used during cleaning to prevent the contamination of surface water systems and to divert the wash water to the dirty water tanks. Mortalities are collected daily and stored in a sealed collection bins to be collected for offsite rendering. All manure is exported from the installation for spreading on land owned by third parties.

The storm water collected from the yard and roof areas is allowed to flow into the pond which acts as a soakaway.

The permit also authorises the installation of two 975kW biomass boilers with aggregated thermal input capacity of 2189.68 kW for the heating of the four poultry houses. The biomass boilers will burn biomass chips or pellets comprising virgin timber, straw and miscanthus. The boilers have been permitted as a Directly Associated Activity. The ash generated from the biomass boilers will be sent offsite as waste.

## Key issues of the decision

### Ammonia Emissions

There are eight relevant nature conservation sites. These include:

- Two Sites of Special Scientific Interest (SSSI): Bardney Limewoods and Bardney Limewoods
- Six Local Wildlife Sites (LWS)/Ancient Woodlands: Birch Wood Bardney, Horsington Wood, Witham Way, Stixwould Wood, Tupholme Abbey and Southrey/Birch Woods

### 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 (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 SSSI.

Initial screening using the ammonia screening tool version 4.5 has indicated that emissions from Campney Grange 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 1,138 metres of the emission source.

Beyond 1,138m 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 all SSSIs are beyond this distance (see table 1 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**

Name of SSSI	Distance from site (m)
Bardney Limewoods	2,541

Bardney Limewoods	4,010
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### **Ammonia assessment - LWS**

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 Campney Grange Farm 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 393 metres of the emission source.

Beyond 393m 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/AW are beyond this distance (see table 2 below) and therefore screen out of any further assessment.

**Table 2 – LWS/AW Assessment**

<b>Name of LWS/AW</b>	<b>Distance from site (m)</b>
Birch Wood Bardney	2,078
Horsington Wood	1,839
Witham Way	1,859
Stixwould Wood	1,717
Tupholme Abbey	1,046
Southrey/Birch Woods	2,075

No further assessment is necessary

### **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 Campney Grange Farm Poultry Unit contained in the application EPR/JP3230DP/A001 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 information presented in the SCR, we accept the operator do not have to provide baseline reference data for the soil and groundwater at the site at this stage.**

## Biomass boilers

The application includes a proposal to install 2 biomass boilers with a net rated thermal input of 2.19 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;
- 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).

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 risk assessment shows that the biomass boilers do not meet all the above criteria because each of the boilers has a net thermal input greater than 1 MWth.

As a result we have undertaken further screening in accordance with Environment Agency H1 risk assessment methodology. The result of the assessment showed that, at the nearest human receptor which is the Campney Cottage approximately 397m from the emission source, the process contributions for nitrogen dioxide, particulate emissions (PM<sub>10</sub>) and carbon monoxide are less than 1% of their respective long term environmental quality standards (EQSs) and less than 10% of their short term EQSs. For these reasons the process contributions are considered insignificant in line with the Environment Agency H1 risk assessment methodology.

For this farm, all other receptors are beyond 397m from the emission source and very unlikely to be significantly impacted. Therefore this proposal is considered acceptable and no further assessment is required.

The tables 3 and 4 below show the input parameters and results of the H1 screening.

<b>Table 3: Input Parameters - Biomass Boiler Specification</b>	
Confirmation of the fuel	See: 0213/LV001
Confirmation that the Biomass boiler appliance and it’s installation meets the technical criteria to be eligible for the Renewable Heat Incentive	See; Hoval STU
Flue diameter	400mm

Stack height (from ground level)	6.5m
Adjacent Building heights	4.5m
Flue nominal load temperature	145.7 °C
Flue minimum temperature	90.4 °C
Thermal input in MW or KW per hour	1094.84 KWh
Exit velocity in m/sec	2.86 M/sec
NOx concentration in mg/Nm <sup>3</sup>	125 mg/Nm <sup>3</sup> at 10% O <sub>2</sub>
CO concentration in mg/Nm <sup>3</sup>	481 mg/Nm <sup>3</sup> at 10% O <sub>2</sub>
PM10 (dust) concentration in mg/Nm <sup>3</sup>	39 mg/Nm <sup>3</sup> at 10% O <sub>2</sub>
O <sub>2</sub> concentration in mg/Nm <sup>3</sup>	7.2 – 10.2 mg/Nm <sup>3</sup>
H <sub>2</sub> O concentration mg/Nm <sup>3</sup>	10.5%
The exact grid reference(s) of the stack(s)	TF16198 67232 – TF16108 67236
The exact grid reference of the centre of the farm	TF16188 67208

<b>Table 4: Screening results - Output parameters</b>								
<b>Receptor Name</b>	<b>Pollutant</b>	<b>Averaging Time</b>	<b>Distance (m)</b>	<b>AQS ug / m3</b>	<b>Model PC Conc ug / m3</b>	<b>Model PC / AQS</b>	<b>Model PEC / AQS</b>	<b>Environmental Risk</b>
Campney Cottage	NO <sub>2</sub>	1 hr	397	200	4.3	0.02	0.22	LOW
Campney Cottage	NO <sub>2</sub>	1 Year	397	40	0.17	0.00	0.50	LOW
Campney Cottage	PM <sub>10</sub>	24 hrs	397	50	0.17	0.00	0.65	LOW
Campney Cottage	PM <sub>10</sub>	1 Year	397	40	0.053	0.00	0.45	LOW
Campney Cottage	CO	1 hr	397	10000	68.0	0.01	0.01	LOW
Campney Cottage	CO	1 Year	397	99999	0.56	0.00	0.00	LOW
Campney Grange	NO <sub>2</sub>	1 hr	401	200	5.6	0.03	0.23	LOW
Campney Grange	NO <sub>2</sub>	1 Year	401	40	0.18	0.00	0.50	LOW
Campney Grange	PM <sub>10</sub>	24 hrs	401	50	0.16	0.00	0.65	LOW

Campney Grange	PM10	1 Year	401	40	0.056	0.00	0.45	LOW
Campney Grange	CO	1 hr	401	10000	53.3	0.01	0.01	LOW
Campney Grange	CO	1 Year	401	99999	0.59	0.00	0.00	LOW
Homelands	NO2	1 hr	696	200	3.2	0.02	0.22	LOW
Homelands	NO2	1 Year	696	40	0.13	0.00	0.50	LOW
Homelands	PM10	24 hrs	696	50	0.10	0.00	0.65	LOW
Homelands	PM10	1 Year	696	40	0.041	0.00	0.45	LOW
Homelands	CO	24 hrs	696	10000	54.8	0.01	0.01	LOW
Homelands	CO	1 Year	696	99999	0.43	0.00	0.00	LOW
Poplar Grove Farm	NO2	1 hr	700	200	3.2	0.02	0.22	LOW
Poplar Grove Farm	NO2	1 Year	700	40	0.11	0.00	0.50	LOW
Poplar Grove Farm	PM10	24 hrs	700	50	0.095	0.00	0.65	LOW
Poplar Grove Farm	PM10	1 Year	700	40	0.034	0.00	0.45	LOW
Poplar Grove Farm	CO	1 hr	700	10000	43.1	0.00	0.00	LOW
Poplar Grove Farm	CO	1 Year	700	99999	0.36	0.00	0.00	LOW
The Pines	NO2	1 hr	470	200	4.5	0.02	0.22	LOW
The Pines	NO2	1 Year	470	40	0.16	0.00	0.50	LOW
The Pines	PM10	24 hrs	470	50	0.16	0.00	0.65	LOW
The Pines	PM10	1 Year	470	40	0.051	0.00	0.45	LOW
The Pines	CO	1 hr	470	10000	52.9	0.01	0.01	LOW
The Pines	CO	1 Year	470	99999	0.54	0.00	0.00	LOW
Willow Farm	NO2	1 hr	770	200	2.7	0.01	0.21	LOW
Willow Farm	NO2	1 Year	770	40	0.070	0.00	0.50	LOW
Willow Farm	PM10	24 hrs	770	50	0.084	0.00	0.65	LOW
Willow Farm	PM10	1 Year	770	40	0.022	0.00	0.45	LOW
Willow Farm	CO	24 hrs	770	10000	55.3	0.01	0.01	LOW



Willow Farm	CO	1 Year	770	99999	0.23	0.00	0.00	LOW
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**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
<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>• Lincolnshire Local Planning Authority,</li> <li>• Lincolnshire Environmental Health,</li> <li>• Public Health England and</li> <li>• The Health and Safety Executive.</li> </ul>	✓
Responses to consultation and 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.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>The site</b>		
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 including emission points.</p> <p>A plan is 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>	✓
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 sites.</p> <p>We have carried out ammonia screening assessment for the proposed Intensive Farming Operation. The result showed that detailed modelling will not be required as the ammonia impacts on the nature conservation sites are insignificant. See key issues for further detail.</p> <p>The application also involve installation of two biomass boilers with aggregated input thermal capacity of 2.19 MWth. 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> <p>We have not formally consulted on the application. The</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	decision was taken in accordance with our guidance.	
Environmental risk	<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> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.</p> <p>See key issues for further detail.</p> <p>The operator submitted an Odour Management Plan with the application which addressed the odour impact from the proposed facility. 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.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>For the biomass boilers the operating techniques are as follows:</p> <ul style="list-style-type: none"> <li>• the fuel is derived from virgin timber,</li> <li>• the biomass boiler appliance and it's installation meets the technical criteria to be eligible for the Renewable Heat Incentive; and</li> <li>• the stacks are 1m or more higher than the apex of the adjacent buildings.</li> </ul> <p>Additionally, the key measures proposed by the operator for odour control (including the house structure, nipple drinkers, daily checks, ventilation, heating, flock management, litter removal, dirty water management,</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>complaint management, monitoring), noise control, energy efficiency measures and waste reduction are in line with measures described in SGN EPR 6.09 V.2.</p> <p>The Operator has confirmed the site will comply with the conclusions in the New Best Available Techniques (BAT) for intensive rearing of poultry published on the 21 February 2017. This requires monitoring and reporting of ammonia emissions and nitrogen and phosphorus excretion in order to demonstrate compliance with the new BAT Associated Emission Levels.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR 6.09 V.2 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>	
<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 virgin timber (including wood chips and pellets), miscanthus or a combination of these are to be used in the biomass boilers. These materials are never to be mixed with or replaced by waste.</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 pre-operational conditions to ensure that the installed underground wash tanks are inspected by the Environment Agency before the site becomes operational to ensure compliance with the requirements of EPR6.09 Sector Guidance Note.</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>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	These descriptions are specified in the Operating Techniques table in the permit.	
<b>Operator Competence</b>		
Environment management system	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.	✓
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared.  No relevant convictions were found.	✓
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 our guidance on what a competent operator is.	✓

## 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. (Newspaper advertising is only carried out for certain application types, in line with our guidance.)

Response received from
Public Health England
Brief summary of issues raised
No issue was raised except that PHE asked us to verify the site location and its proximity to residential receptors.
Summary of actions taken or show how this has been covered
We have advised PHE of the correct site location.

Response received from
Director of Public Health
Brief summary of issues raised
Director of Public Health noted that there are homes close to the site, within 400m; and so special care must be taken to mitigate potential nuisance caused to these residents.
Summary of actions taken or show how this has been covered
The applicant has submitted risk assessments and management plans which we have assessed. We are satisfied measures are in place to mitigate all potential nuisance (noise, odour, dust, ammonia, vermin) to human receptors. See key issues and Annex 1 for further details.

The Lincolnshire Local Planning Authority, Local Authority Environmental Health Department and the Health and Safety Executive were consulted, however, no responses were received.

This proposal was also publicised on our website between 21/12/16 and 23/01/17 and no representations were received.