

Intensive Farming example Decision Document text

Variation

We have decided to issue the variation for **Knuzden Brook Poultry Farm** operated by **Patrick Lyons Poultry Limited**.

The permit number is **EPR/FP3130UF**

The variation number is **EPR/FP3130UF/V002**

This was applied for and determined as a normal variation.

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

Purpose of this document

This decision document:

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

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

Structure of this document

- Key issues /
- Annex 1 the decision checklist

Example Key Issues

Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February and came into force on 27 February. These Regulations transpose the requirements of the IED.

Amendments have been made to the conditions of this variation so that it now 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 Knuzden Brook Poultry Farm (dated 17/04/2007) 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.**

Biomass boiler

The applicant is varying their permit to include 3 biomass boiler(s) with a net rated thermal input of 0.66 MWth.

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 boiler(s).

This guidance states that 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 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:
 - 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).

The biomass boilers did not meet the requirements of any of above criteria. For boilers with an aggregated thermal input of over 0.5MWth, the stack height is required to be 1m above the height of any buildings within 25m. In this case, the boiler stacks are 0.5m lower than any building within 25m. As a result, additional Air Quality Screening was carried out to assess any additional risk.

The closest human residence is Warnock Green Farm at SD 71391 27508. There are further sensitive receptors at

SD 71117 27318

SD 71165 27294
SD 71221 27267
SD 71255 27245
SD 71391 27508
SD 71391 27508

The applicant provided emissions data for the boilers (see below). We carried out a screening process to check for potential impacts at the nearby sensitive receptors. **The impacts from the boilers were found to be insignificant.** Therefore overall the environmental air emissions impact is considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

Biomass Boiler Input Parameters

Number of biomass boilers	3
Stack height (from ground level)	5.5m
Thermal input in MW or kW per hour of each boiler	221.1kWh
The exact grid reference(s) of the stack(s)	SD 71255 27449 SD 71233 27404 SD 71206 27355
The exact grid reference of the centre of the farm	SD 71253 27390
A plan giving layout of the farm including dimensions.	yes
Fuel type (virgin wood, straw or miscanthus)	Virgin wood
Approximate fuel storage tonnage	48 tons
Details of accident prevention measures	yes
Confirmation that the ash will be disposed of as a waste, or spread under an exemption	yes
Confirmation that the boiler and its installation meet the technical criteria to be eligible for the Renewable Heat Incentive (the boiler manufacturer should have proof of certification)	yes
Adjacent Building heights	6m
Flue diameter	250mm
Flue minimum temperature	63.1oc
Flue nominal load temperature	190oc
Exit velocity in m/sec	2.48M/sec
NO _x concentration in mg/Nm ³	136 mg/Nm ³ at 10% O ₂
CO concentration in mg/Nm ³	213mg/Nm ³ at 10% O ₂
PM ₁₀ (dust) concentration in mg/Nm ³	29mg/Nm ³ at 10% O ₂

O ₂ concentration %	6,5 – 8,6 mg/Nm ³
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Heat Exchanger

This variation also incorporates the operation of one heat exchanger in to the permit. The operator has confirmed that the condensate is treated in the same manner as wash water and is in line with the Agency's position statement for Heat Exchangers and condensate management.

Site boundary

The installation boundary is unchanged.

Annex 1: decision checklist

Aspect considered	Justification / Detail	Criteria met
		Yes
Consultation		
Scope of consultation	The consultation requirements were identified and implemented – none was required. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will continue to 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.	✓
The site		
Extent of the site of the facility	<p>The operator has provided an updated plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p> <p>The installation boundary is unchanged. The operator has provided a separate plan to indicate location of the three new biomass boilers and a heat exchanger.</p>	✓
Site condition report	The installation boundary has not changed with this variation. Therefore a review of the site condition report has not been required linked to this variation.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is not within the relevant distance criteria of any European statutory sites of nature conservation. There is one SSSI, Harper Clough and Smalley Delph Quarry within the 5 km screening distance (4.1 Km to the North East of installation)</p> <p>Natural England were consulted in the construction of the Environment Agency's May 2013 document "Biomass boilers on EPR Intensive Farms". For this assessment the criteria as discussed above have been and the emissions are insignificant.</p> <p>AQTAG 14 clarifies for sites with combustion facilities < 5 MW that no habitat assessment is necessary.</p>	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	<p>We have carried out a risk assessment on behalf of the operator using our Biomass Assessment methodology.</p> <p>The operator considers this 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>	✓
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"> 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 proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN EPR6.09 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		
Updating permit conditions during consolidation.	<p>We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
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 straw shall be used as a fuel for the biomass boiler. These materials are never to be mixed with or replaced by waste.</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>	✓
Operator Competence		
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 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 on Operator Competence.	✓