

## Environment Agency permitting decisions

### **Variation**

We have decided to issue the variation for Parrett Poultry Farm operated by Mr C Richards and Mrs M Richards (trading as J & M Richards and Sons).

The permit number is **EPR/VP3237MF**

The variation number is **EPR/VP3237MF/V004**

This was applied for and determined as substantial variation.

The application was duly made on 20/03/2015.

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: Industrial Emissions Directive, Groundwater and Soil Monitoring, Biomass boilers, and Ammonia assessment.
- Annex 1 the decision checklist
- Annex 2 the consultation responses

## **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 Parrett Poultry Farm dated 01 August 2009 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 Boilers**

The applicant is varying their permit to include an additional two 208.2 kilowatt biomass boilers. With the existing five biomass boilers on site there will be an aggregated net thermal input of 1.46 megawatts.

In line the Environment Agency's revised H1 risk assessment guidance an assessment has undertaken to consider the proposed addition of the biomass boilers.

This guidance states that the Environment Agency has assessed the pollution risks and have 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, clean non virgin timber, straw or miscanthus; and
- the biomass boiler appliance and its 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, an 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).

\* For purposes of assessing the impacts of air emissions on human health, the term 'sensitive receptor' applies to dwellings (including the farm house or farm managers and farm worker's houses and associated gardens).

The biomass boilers meet the requirements above, and are therefore considered not likely to pose a significant risk to the environment of human health and no further assessment is required.

## **Ammonia emissions**

There is one Special Protection Area (SPA) and one Ramsar site located within ten kilometres of the installation. There are three Sites of Special Scientific Interest (SSSI) located within five km of the installation. There is also one Local Wildlife Site (LWS) within two km of the installation.

### Ammonia assessment – SPA/Ramsar sites

The following trigger thresholds have been designated for the assessment of European 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 in combination assessment will be completed to establish the combined PC for all existing farms identified within 10 km of the application.

Screening using the ammonia screening tool version 4.4 has determined that the process contributions of acid and nitrogen deposition from the application site are over the 4% significance threshold. As such, it is not possible to conclude no adverse effect alone. Where the process contribution falls between 4% and 20%, Environment Agency guidance indicates that an in combination assessment should be undertaken. An in combination assessment has been carried out. There are two other farms acting in combination with this application. A detailed assessment has been carried out as shown below.

A search of all existing active intensive agriculture installations permitted by the Environment Agency has identified the following farms within 10 km of the maximum concentration point for Somerset Levels and Moors SPA/Ramsar.

Table 1 – In combination farms assessment (Nutrient Nitrogen)

Name of Farm	PC kg/ha/yr	Critical load Kg N/ha/year	PC as % of critical load
<i>Parrett Poultry Farm</i>	0.495	5	9.9
Egwood Poultry Unit	0.033	5	0.7
Frogmary Green Farm	0.345	5	6.9
<b>Total PC</b>	<b>0.873</b>		<b>16.8</b>

Table 2 – In combination farms assessment (Acidity)

Name of Farm	PC Keq/ha/yr	Critical load Keq/ha/year	PC as % of critical load
<i>Parrett Poultry Farm</i>	0.035	0.489	7.2
Egwood Poultry Unit	0.002	0.489	0.4
Frogmary Green Farm	0.025	0.489	5.0
<b>Total PC</b>	<b>0.062</b>		<b>12.2</b>

NOTE – The predicted process contributions for each of the farms listed above are calculated using the Environment Agency’s ammonia screening tool version 4.4. The values are conservative in their estimate of process contribution and thus predict a greater impact than would be predicted if detailed modelling was undertaken for each farm.

Tables 1 and 2 show that the total process contribution at Somerset Levels and Moors SPA/Ramsar from all farms in combination is 16.8% for nutrient nitrogen and 12.2% for acidity. In line with Environment Agency guidelines, where the total PC is <20% of the critical load, in combination impacts can be considered as having no adverse effect. The total PC for Somerset Levels

and Moors SPA and Ramsar is < 20% , and therefore we have concluded no adverse effect from in combination impacts at the SPA and Ramsar.

### 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.

For the following sites this farm has been screened out using results of the ammonia screening tool (version 4.4).

Screening using ammonia screening tool (version 4.4) has indicated that emissions from Parrett Poultry Farm will only have a potential impact on sites with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 1,765 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $0.2 \mu\text{g}/\text{m}^3$ .  $0.2 \mu\text{g}/\text{m}^3$  is 20% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. In this case all SSSIs are beyond this distance.

**Table 3 – distance from source**

Site	Distance (m)
West Moor	2,863
Ham Hill	3,874
Wet Moor	4,435

The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

### Ammonia assessment - LWS

There is one Local Wildlife Site (LWS) within 2 km of Parrett Poultry Farm. The following trigger thresholds have been applied for the assessment of these sites.

- If PC is <100% of relevant critical level or load, then the farm can be permitted (H1 or ammonia screening tool)
- If further modelling shows PC <100%, then the farm can be permitted.

For the following sites this farm has been screened out at stage 1, as set out above, using results of the ammonia screening tool (version 4.4).

Screening using ammonia screening tool (version 4.4) has indicated that emissions from Parrett Poultry Farm will only have a potential impact on sites

with a critical level of  $1 \mu\text{g}/\text{m}^3$  if they are within 617 metres of the emission source. Screening indicates that beyond this distance, the PC at conservation sites is less than  $1 \mu\text{g}/\text{m}^3$ .  $1 \mu\text{g}/\text{m}^3$  is 100% of the  $1 \mu\text{g}/\text{m}^3$  CLe and therefore beyond this distance the PC is insignificant. In this case the LWS is beyond this distance.

**Table 4 – distance from source**

<b>Site</b>	<b>Distance (m)</b>
Bulsome Bridge Fields	1,619

The PC at these sites has been screened as insignificant. It is possible to conclude no significant pollution will occur at these sites and no further assessment is required.

## Annex 1: decision checklist

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

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Consultation</b>		
Scope of consultation	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.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision.	✓
<b>Operator</b>		
Control of the facility	We are satisfied that 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 on the operator.	✓
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application.  The permit implements the requirements of the EU Directive on Industrial Emissions.  <b>See key issues 'Industrial Emissions Directive' section above for more details.</b>	✓
<b>The site</b>		
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.  A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Biodiversity, Heritage, Landscape	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.	✓

and Nature Conservation	<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><b>See key issues ‘Ammonia Emissions Assessment’ section above for further information.</b></p> <p>An Appendix 11 was sent to Natural England ‘For information only’ on 08 April 2015.</p> <p>An Appendix 4 was completed and saved to EDRM for audit only on 08 April 2015.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</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), straw, miscanthus or a combination of these. These materials are never to be mixed with or replaced by, waste.</p>	✓
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>	✓
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>	✓
<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>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>	✓
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 from virgin timber; and</li> <li>• the biomass boiler appliance and it's installation meets the technical criteria to be eligible for the Renewable Heat Incentive.</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>	✓
<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 RGN 5 on Operator Competence.</p>	✓

## Annex 2: Consultation and web publicising advertising responses

### 1) Natural England

Response received on 23 April 2015 from
Natural England
Brief summary of issues raised
Although Natural England are not convinced that our approach to the pre-application ammonia assessment was correct, they believe that the risk of this proposal having an adverse effect is low.
Summary of actions taken or show how this has been covered
The Environment Agency used a more stringent critical load for the Somerset Levels than Natural England would have recommended. As a result the

Environment Agency's assessment is conservative. No further action is required based on Natural England's response.

### **Reponses not received**

The Health and Safety Executive (HSE) and Environmental Health were also consulted; however, consultation responses from these parties were not received.

### **Web publicising**

This proposal was also publicised on the Environment Agency's website between 06 April 2015 and 07 May 2015, but no representations were received during this period.