

# Environment Agency permitting decisions

## Variation

We have decided to issue the variation for Swarbrick Hall Poultry Unit operated by Mr John Smith.

The variation number is EPR/XP3330VH/V002.

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 the changes introduced by the variation
- Key issues
  - Additional area of land included in the permit
  - Biomass boilers
  - Ammonia emissions
  - Odour and Noise
  - Industrial Emissions Directive
  - Groundwater and Soil Monitoring
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

## **Description of the changes introduced by the Variation**

This is a Substantial Variation. This variation authorises the following changes:

- Increasing the number of broiler places to 300,000 in total;
- The addition of two new sheds (referenced numbers 5 and 6);
- The addition of a new area of land (centred on grid reference SD 39177 35952) to the west of the existing boundary, which will accommodate houses 3 – 6;
- The replacement of the existing four biomass boilers, with two new biomass boilers (with an aggregated thermal input of 1.595 MWth); and
- The addition of a carcass incinerator.

## **Key Issues**

### **Additional area of land included in the permit**

This variation includes the addition of a new area of land (centred on grid reference SD 39177 35952) to the west of the existing boundary, which will accommodate houses 3 – 6.

This area of land has never been used for permitted activities and so the operator was required to submit a site condition report for this land. This was submitted with the application (dated 17/08/16) – it stated that this land has only been previously used as arable farmland and that there had been no historical pollution incidents.

### **Biomass boilers**

The applicant is varying their permit to replace the existing 4 biomass boilers, with two biomass boilers with a net rated thermal input of 1.595 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 boiler(s).

The Environment Agency's risk assessment has shown that the biomass boilers meet the requirements above, and are therefore considered not likely to pose a significant risk to the environment or human health and no further assessment is required.

## **Ammonia emissions**

There are 4 Special Protection Areas (SPA), and 2 Ramsar sites located within 10 kilometres of the installation. There are 2 Sites of Special Scientific Interest (SSSI) located within 5 km of the installation. There are no Local Wildlife Site (LWS),/Ancient Woodland (AW), Local Nature Reserve (LNR) within 2 km of the installation.

## **Ammonia assessment – SAC/SPA/Ramsar**

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 SPAs/Ramsars.

Initial screening using ammonia screening tool version 4.5 has indicated that emissions from Swarbrick Hall Poultry Unit will only have a potential impact on the SPA/Ramsar sites with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 4002 metres of the emission source.

Beyond 4002m the PC is less than  $0.04\mu\text{g}/\text{m}^3$  (i.e. less than 4% of the precautionary  $1\mu\text{g}/\text{m}^3$  critical level) and therefore beyond this distance the PC is insignificant. In this case 3 SPAs and 1 Ramsars are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of  $1\mu\text{g}/\text{m}^3$  is used, and the process contribution is assessed to be less than 4% the site automatically screens out as insignificant and no further assessment of critical load is necessary. In this case the  $1\mu\text{g}/\text{m}^3$  level used has not been confirmed by Natural England, but it is precautionary. It is therefore possible to conclude no likely significant effect.

**Table 1 –SPA/Ramsar Assessment**

| Name of SAC/SPA/Ramsar        | Distance from site (m) |
|-------------------------------|------------------------|
| Liverpool Bay SPA             | 9078                   |
| Liverpool Bay - Wales SPA     | 9078                   |
| Ribble and Alt Estuary SPA    | 8160                   |
| Ribble and Alt Estuary Ramsar | 8160                   |

Screening using the ammonia screening tool version 4.5 has determined that the PC on the other two SPA/Ramsar sites for ammonia emissions from the application site are under the 4% significance threshold and can be screened out as having no likely significant effect. See results below.

**Table 2 – Ammonia emissions**

| Site                 | Critical level ammonia $\mu\text{g}/\text{m}^3$ | Predicted PC $\mu\text{g}/\text{m}^3$ | PC % of Critical level |
|----------------------|---|---------------------------------------|------------------------|
| Morecambe Bay SPA    | 3*  | 0.041                                 | 1.4                    |
| Morecambe Bay Ramsar | 3*  | 0.041                                 | 1.4                    |

\* Natural England advised that a CLe of 3 for ammonia should be applied across the Morecambe Bay SPA/Ramsar

**Table 3 – Nitrogen deposition**

| Site                 | Critical load kg N/ha/yr [1] | Predicted PC kg N/ha/yr | PC % of critical load |
|----------------------|------------------------------|-------------------------|-----------------------|
| Morecambe Bay SPA    | 8                            | 0.213                   | 2.7                   |
| Morecambe Bay Ramsar | 8                            | 0.213                   | 2.7                   |

Note [1] Critical load values taken from Air Pollution Information System (APIS) website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 01/07/16

**Table 4 – Acid deposition**

| Site                 | Critical load keq/ha/yr [1] | Predicted PC keq/ha/yr | PC % of critical load |
|----------------------|-----------------------------|------------------------|-----------------------|
| Morecambe Bay SPA    | 0.643                       | 0.015                  | 2.3                   |
| Morecambe Bay Ramsar | 0.643                       | 0.015                  | 2.3                   |

Note [1] Critical load values taken from APIS website ([www.apis.ac.uk](http://www.apis.ac.uk)) – 01/07/16

No further assessment is necessary.

## **Ammonia assessment – SSSI**

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 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 Swarbrick Hall Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of  $1\mu\text{g}/\text{m}^3$  if they are within 1372 metres of the emission source.

Beyond 1372m the PC is less than  $0.2\mu\text{g}/\text{m}^3$  (i.e. less than 20% of the precautionary  $1\mu\text{g}/\text{m}^3$  critical level) and therefore beyond this distance the PC is insignificant. In this case all SSSIs are beyond this distance (see table below) and therefore screen out of any further assessment.

Where the precautionary level of  $1\mu\text{g}/\text{m}^3$  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  $1\mu\text{g}/\text{m}^3$  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 5 – SSSI Assessment**

| <b>Name of SSSI</b> | <b>Distance from site (m)</b> |
|---------------------|-------------------------------|
| Wyre Estuary SSSI   | 3940                          |
| Marton Mere SSSI    | 4533                          |

## **Odour and Noise**

As this application involves the addition of a new area of land to the installation, it now means that there are sensitive receptors within 400m of the boundary.

As stated in section 3.3 and 3.4 of our guidance EPR6.09 “How to comply with your environmental permit for intensive farming”: if there are sensitive receptors within 400m of the installation, the applicant is required to submit written odour and noise management plans as part of the application.

The applicant submitted both an odour management plan (OMP) and a Noise Management Plan (NMP) on 21/11/16 which we have reviewed as part of the application process.

We, the Environment Agency, have reviewed and approved the OMP and consider it complies with the requirements of our H4 Odour management and H3 Noise 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.

We are satisfied with the measures set out in both the OMP and the NMP; however we also require that they are periodically reviewed by the operator to ensure their continued suitability for this installation.

## 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 reports (SCR) for Swarbrick Farm: the original SCR (dated 26/07/14) and for the new area (dated 17/08/16) both demonstrate 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.**

### 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 |
|--|--|--------------|
|  |  | Yes          |
| <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                          | The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.<br><br>For this application we consulted the following bodies: <ul style="list-style-type: none"> <li>• Health and Safety Executive (HSE),</li> <li>• Food Standards Agency (FSA) and</li> <li>• local authority planning department</li> </ul> | ✓            |
| Responses to consultation and web publicising. | The web publicising and consultation responses (Annex 2) were taken into account in the decision.<br><br>The decision was taken in accordance with our guidance.   | ✓            |
| <b>European Directives</b>                     |  |              |
| Applicable directives                          | All applicable European directives have been considered in the determination of the application.   | ✓            |
| <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.<br><br>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.  | ✓            |
| Site condition                                 | The operator has provided a description of the condition   | ✓            |



| Aspect considered   | Justification / Detail  | Criteria met |
|---|---|--------------|
|   |   | Yes          |
| report  | <p>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>An appendix 11 was sent to Natural England for information only on 01/12/2016.</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 the biomass boiler aspect of this variation is considered acceptable and no further assessment is required.</p>   | ✓            |
| <b>Environmental Risk Assessment and operating techniques</b> |   |              |
| Environmental risk  | <p>We have carried out a risk assessment on behalf of the operator.</p> <p>See Key Issues section for further explanation.</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,</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>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> | ✓            |

| Aspect considered             | Justification / Detail   | Criteria met |
|-------------------------------|--|--------------|
|                               |  | Yes          |
|                               |  |              |
| <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>              | ✓            |
| 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>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 our guidance on what a competent operator is.</p>  | ✓            |

## **Annex 2: Consultation and web publicising advertising responses**

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

|   |
|---|
| <i>Response received from</i>                                     |
| Public Health England   |
| <i>Brief summary of issues raised</i>                             |
| No comments to make   |
| <i>Summary of actions taken or show how this has been covered</i> |
| No action necessary   |

### **Reponses not received**

The Health and Safety Executive (HSE), Food Standards Agency (FSA) and local authority planning department were also consulted; however, consultation responses from these parties were not received.