

# Permitting decisions

## Variation

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We have decided to grant the variation for ABP Langport operated by Anglo Beef Processors UK.

The variation number is EPR/HP3330CQ/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 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 and the variation notice. The introductory note summarises what the variation covers.

# Key issues of the decision

## Odour

The abattoir occupies an area immediately south of the village of Huish Episcopi in Somerset. There are sensitive receptors on the northern site boundary, and large housing estates within 1km of the site. Outside the residential areas, the surrounding land is used almost exclusively for farming, with the Somerset Levels to the south of the site. The existing site has had occasional complaints in the past, however these have not been substantiated. The operator has been working with the Environment Agency to improve process controls on site to limit odour emissions beyond the site boundary.

The operator has provided a revised Odour Management Plan (OMP) to address point source and fugitive emissions on site in the new process areas; and ensure that contingency procedures are in place for abnormal or emergency conditions on site (reference: *ABP Langport: Odour Management Plan - August 2017, Revision 3*).

The following are some of the appropriate measures that have been put in place for the site:

- The new blood storage facility is inspected on a daily basis and has an overflow alarm. Fugitive emissions are treated with an activated carbon filter tank located on the storage tank vents. The carbon filter is monitored daily, with spare filter media kept on site at all times as a contingency measure.
- The waste water treatment plant is monitored through an advanced SCADA system on site to prevent odours arising from loss of process control. Preventative maintenance of all equipment is undertaken to reduce the risk of breakdown. Continuous monitoring of the discharge to sewer is also undertaken, with appropriate action taken as necessary to reduce nuisance outside the site boundary.
- Good standards of hygiene are maintained on site to ensure potential for odours is minimised, with an underlying 'clean as you go' principle. The site operates daily cleaning procedures, with clear lines of responsibility for all areas of the abattoir.
- The site undertakes odour monitoring around the site on a daily basis and has a clear procedure for odour assessment incorporated into the Environmental Management System. This feeds into quarterly site audits.
- A weather station has been installed on site to ensure that weather conditions are considered during operations. The prevailing wind direction is south-easterly, blowing in the opposite direction to the nearest residential area to the site.
- An odour complaints procedure is in place for the site, with a standard operating procedure in place for environmental incidents following any complaint.
- Emergency procedures and contingency measures have been considered in the odour management plan. A number of standard operating procedures are in place to support the emergency response and reduce the environmental impact of incidents on site.

We are satisfied that the measures outlined in the OMP should be sufficient to minimise the potential for odour emissions from the facility so that there will be no odour nuisance beyond the installation boundary. The Operator is required to operate in accordance with the OMP, at all times, to prevent pollution arising from odours and implement all mitigation measures in line with the plan.

We have reviewed and approved the OMP and consider it complies with the requirement of our H4 Odour Management guidance note. We agree with the scope and suitability of the 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.

## Reverse Osmosis Discharge

The operator has proposed to take water from the onsite borehole for use on site. Results from elemental analysis of the borehole water identified that sulphate and hardness needed to be removed first for it to be of sufficient quality for use in processing. The operator is therefore proposing to install a reverse osmosis

treatment plant to ensure the water is of the required standard. The water inflow to the plant will be 33.3m<sup>3</sup> an hour. Approximately 25% of the processed water (8.3m<sup>3</sup>) will be discharged as 'reject' water into the River Yeo on a continual discharge basis. 25m<sup>3</sup> an hour of permeate will be produced.

The operator undertook a screening using the Environment Agency H1 Risk Assessment tool to determine if the reject water discharged to the River Yeo would cause any deterioration in the water body. We have assessed the impact of the discharge in accordance with our guidance.

When we assess an application to vary a permit for a discharge to surface waters, we use two tests to decide if discharges to surface waters are acceptable. A discharge is usually acceptable if:

1. it does not cause deterioration in quality of the water body receiving the discharge, and
2. the receiving water body meets its target quality standards.

*Water Quality Assessment*

The Operator undertook a H1 assessment for the discharge flow at W5 in order to screen out pollutants which could be considered insignificant and for which detailed modelling is not necessary, in line with our surface water pollution risk assessment guidance. The purpose of this assessment was to determine whether the discharge was liable to cause pollution of the receiving waters. This means assessing substances covered by the Environmental Quality Standards (EQS) Directive (i.e. priority hazardous substances, priority substances and "other pollutants"); and the WFD (Standards and Classification) Directions (England and Wales) 2015 (i.e. specific pollutants), and substances which have operational (non-statutory) EQSs. These substances are all grouped together and we refer to them as "hazardous pollutants".

The initial H1 assessment used flow data for the River Yeo at Bickwell's Bridge. The screening tests indicated that no detailed assessment was required and all pollutants can be screened out.

**Air Emissions**

A new natural gas-fired steam boiler is to be installed on site for the new beef dripping process facility. This will be an additional Air Emission point, A6. The operator has undertaken an air quality screen using the Environment Agency H1 Risk Assessment tool for emissions from A6. The modelling parameters and output predictions of this assessment have been validated. We agree with the conclusion that there will be no likely exceedence of the air quality objectives for oxides of nitrogen, sulphur dioxide or carbon monoxide. The results of the H1 assessment is provided below.

Nitrogen dioxide (NO<sub>2</sub>)

Air Quality Objective	Objective value (µg/m <sup>3</sup> )	PC (NO <sub>2</sub> ) (µg/m <sup>3</sup> )	PC / AQS (%)	Background (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )
Short-term AQS	200	44.7	22.35	7.76	60.22
Long-term AQS	40	2.21	5.525	7.76	9.98

PC – Process concentration; AQS - National UK Air Quality Standard; PEC – Predicted Environmental Concentration

The short term modelling results for the maximum calculated concentration demonstrates that NO<sub>2</sub> cannot be considered insignificant according to our H1 criteria because the process contribution (PC) is more than 10% of the short-term environmental standard (22.35%).

Having taken into account the background concentration the short term process contribution is more than 20% of the relevant short term environmental standard minus twice the long term background concentration (headroom), therefore it cannot be considered insignificant according to our H1 criteria:

PC short term > 20% (standard short term – 2 x background long term)  
 [44.7 µg/m<sup>3</sup> > 36.89 µg/m<sup>3</sup>]

Parameter	Background Concentration ( $\mu\text{g}/\text{m}^3$ )	Short term max PC at receptors ( $\mu\text{g}/\text{m}^3$ )	Short term headroom between EAL and background ( $\mu\text{g}/\text{m}^3$ )	Short term max % of headroom
NO <sub>x</sub> (as NO <sub>2</sub> )	7.76	44.7	184.4	24.24

The short term hourly mean for NO<sub>2</sub> exceeds 20% of the headroom at 24.24%. However, there is still adequate headroom between the PEC and the EAL to conclude that an exceedence of the NO<sub>2</sub> short term EAL is unlikely. Also, the emission parameters submitted by the Operator are based on a worst case scenario running with the maximum emission concentrations.

The long term results demonstrates that NO<sub>2</sub> cannot be considered insignificant according to our H1 criteria as the PC is more than 1% of the long-term environmental standard. However, having taken into account the background concentration, we have concluded that emissions are not significant because the Predicted Environmental Contribution (PEC) for this pollutant is less than 70% of the long term air quality standard:

PC long term < 70% standard long term  
 [9.98  $\mu\text{g}/\text{m}^3$  < 28  $\mu\text{g}/\text{m}^3$ ]

#### Carbon monoxide (CO)

Air Quality Objective	Objective value ( $\mu\text{g}/\text{m}^3$ )	PC (CO) ( $\mu\text{g}/\text{m}^3$ )	PC / AQS (%)
Short-term AQS	10,000	2.69	0.0269

PC – Process concentration; AQS - National UK Air Quality Standard

The short term results demonstrate that CO can be considered insignificant because the PC is less than 10% of the short-term environmental standard.

#### Sulphur dioxide (SO<sub>2</sub>)

Air Quality Objective	Objective value ( $\mu\text{g}/\text{m}^3$ )	PC (SO <sub>2</sub> ) ( $\mu\text{g}/\text{m}^3$ )	PC / AQS (%)
Short-term AQS	350	14	4

PC – Process concentration; AQS - National UK Air Quality Standard

The short term results demonstrate that SO<sub>2</sub> can be considered insignificant because the PC is less than 10% of the short-term environmental standard.

No assessment was required on sites of heritage, landscape or nature conservation, and/or protected species or habitat due to the size of the combustion plant. The aggregated thermal input of 2.984MWth is below the 5 MWth threshold and therefore the relevant distance criteria of zero metres was applied for a European site in accordance with AQTAG014 “Guidance on identifying ‘relevance’ for assessment under the Habitats Regulations for installations with combustion processes”. This installation is therefore not considered ‘relevant’ for assessment under the Environment Agency’s guidance for combustion processes.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</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 confidentiality.
<b>Consultation</b>	
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 between 20 July 2017 and 17 August 2017.  We consulted the following organisations: <ul style="list-style-type: none"> <li>• Environmental Health - South Somerset District Council</li> <li>• Wessex Water Sewerage Authority</li> <li>• Health and Safety Executive</li> </ul> No responses were received.
<b>The facility</b>	
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'.  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.
<b>The site</b>	
Extent of the site of the facility	The operator has provided plans which we consider are 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 and includes new areas of the site to extend the installation boundary. They have also provided baseline data for this area. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.  The Somerset Levels Special Protection Area (SPA) and Ramsar site is within 10 km of the installation. Three Sites of Special Scientific Interest

Aspect considered	Decision
	<p>(SSSI) are within 2 km of the installation: Langport Railway Cutting, Wet Moor and Aller Hill.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and 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 protected species or habitats identified.</p> <p>We have not consulted Natural England on the application, but an Appendix 11 assessment was sent for information for the Somerset Levels SPA and Ramsar site. The decision was taken in accordance with our guidance.</p>
<b>Environmental risk assessment</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>
<b>Operating techniques</b>	
General operating techniques	<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>
Operating techniques for emissions that screen out as insignificant	<p>Emissions of hazardous pollutants in the new surface water discharge, and air emissions (carbon monoxide, sulphur dioxide and oxides of nitrogen) from the new gas-fired boiler supplying the beef dripping process have been assessed using the H1 screening tool. We consider that the emissions from the site will not be significant. We agree that the applicant's proposed techniques are Best Available Technique (BAT) for the installation. See Air Emissions section above for further details.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>
Odour management	<p>We have reviewed the odour management plan in accordance with our guidance on odour management.</p> <p>We consider that the odour management plan is satisfactory.</p> <p>See the odour section in key issues for more information.</p>

Aspect considered	Decision
<b>Permit conditions</b>	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.
Emission limits	<p>The Emission to Air A6 in the previous permit (for the blood tank (commercial) via charcoal system) has been decommissioned. A new gas-fired steam boiler will be built for the beef dripping facility. This will become new Emission to Air point A6.</p> <p>A new Emission to Water, W5, has been added to the permit to allow for the discharge of reject reverse osmosis water into the River Yeo. There are currently 2 options for the siting of this discharge, both identified on the site emissions plan.</p> <p>No emission limits have been added, amended or deleted as a result of this variation.</p>
Monitoring	Monitoring has not changed as a result of this variation.
Reporting	Reporting has not changed as a result of this variation.
<b>Operator competence</b>	
Management system	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.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	<p>We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across</p>

<b>Aspect considered</b>	<b>Decision</b>
	businesses in this sector and have been set to achieve the required legislative standards.