

Environment Agency permitting decisions

Variation

We have decided to issue the variation for ABP Blackburn operated by Anglo Beef Processors UK

The variation number is EPR/FP3231LX/V002

This variation was duly made on 07/11/14 and determined as a substantial variation to the permit. This variation also consolidates and updates the permit to modern conditions.

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
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Anglo Beef Processors UK have applied for this variation to accommodate a number of changes at their Blackburn site.

Firstly this variation authorises the installation of an effluent treatment process in the form of a Dissolved Air Flotation (DAF) unit. All wastewater arising from the slaughtering process and collected in the pump chamber in the green offal (stomach, intestines and their contents) area will be treated prior to entering the sewer network via a discharge consent held with United Utilities PLC.

Secondly it authorises a new blood storage and processing facility to be installed on site. Currently all blood generated on site has to be considered a waste and is sent for disposal. Blood will now be processed, refrigerated and stored on site prior to collection. The change in process means that blood will go from being considered a waste to being classified as a saleable product. We consider in reaching this 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.

The key issues associated with this variation are:

- Effluent treatment changes
- Odour management for new processes
- Storage and containment

Effluent treatment

In order to ensure that the sites meets the standards of the discharge consent, especially with respect to suspended solids, a DAF unit shall be installed to treat the wastewater arising from the slaughtering process prior to discharge to sewer. A 1mm screen is in place to pre screen the wastewater prior to it entering the DAF unit.

The DAF unit is constructed of stainless steel with a capacity of 20 cubic meters per hour. The wastewater will be treated with chemicals (ferric chloride/ferric sulphate), the addition of polymer as a flocculent and a coagulant will be added to aid in the removal of contaminants. The process is capable of removing 80% of contaminants in the form of Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD) and suspended solids. The flocs generated will be removed as sludge by scraper into a sludge storage tank before being fed into the sludge dewatering system. Once dewatered the sludge falls into a sealed sludge tank and is removed offsite as it is produced to be spread to land for agricultural benefit. All wash water and permeate from the dewatering system will go back into the sump for reprocessing. The treated effluent is discharged to sewer under a trade effluent consent with UU PLC.

We agree with the operators proposals: the introduction of the DAF unit will provide adequate primary treatment of the waste water produced from the facility to achieve compliance with the trade effluent consent with United Utilities PLC.

Odour management

Blood Storage

The operator is proposing a new refrigerated blood storage system. The potential to generate odour is eliminated due to the refrigeration of the blood.

An odour management plan for the new blood treatment process was submitted as part of the application. We have reviewed this odour management plan and consider it to be satisfactory for the new process. This odour management plan has been incorporated into the permit in *Table 2.1.1 Operating Techniques*.

Key points as follows:

- Anticoagulants will be added before the blood reaches the refrigerated storage area. This will keep the blood as fresh as possible and prevent coagulation within the pipe work.
- Blood will be refrigerated to below 10°C (degrees Celsius). This will inhibit the blood turning odorous (chilled from approximately 35°C to below 5°C).
- Refrigerated blood will be stored on site for short periods of time and will be removed from site every other day.
- The entire pipe work and intermediate tanks will be cleaned out daily following production using an automated clean-in-place (CIP) system. This involves flushing out all pipe work and sanitising all equipment. The wastewater arising from cleaning enters the onsite foul effluent network.
- Wastewater is not held overnight and therefore there is no opportunity for the effluent to become odorous.
- In the event that the blood does not achieve the correct specification, for example due to plant breakdown or refrigeration failure, the blood within the storage tank shall be removed from site daily until normal operations can continue.

Indicative Best Available Techniques (BAT) refers to activated carbon filters on blood storage tank vents. However the operator's proposals include; refrigeration to less than 10°C , regular emptying of the tank and provision of clean-in-place (CIP) to maintain tank cleanliness. We conclude that there is no requirement for additional odour abatement for the proposed storage.

Effluent Treatment Plant (ETP)

Odour management practices in place for the DAF unit are as follows:

- The DAF unit will be enclosed to prevent odour escape.

- The sludge produced via the DAF process will be held in a sealed sludge storage tank before entering the sludge dewatering system, both of which are enclosed to prevent odour escape.
- Any sludge produced is processed and removed on the same day to minimise odours.

We agree that the proposals for odour mitigation for the DAF unit are suitable for the site.

Storage & containment

ETP and associated tanks

The ETP tank is not bunded however it is located on non permeable ground and any spillages would be diverted back into the ETP system through the nearby sealed drainage system. The DAF unit and sludge storage tanks are constructed of stainless steel and are protected by a barrier preventing accidental damage by forklifts or vehicles.

All chemicals associated with the ETP shall be contained within mobile bunds to ensure that spillages are collected. Approximately 2,000 litres of chemicals will be stored on site at any one time, Ferric sulphate in a 1000 litre intermediate bulk container (IBC) and Poly electrolyte in a 200 litre container designed for purpose.

Blood storage tanks

A bund will be built around the tanks associated with the new blood process. The capacity of the bund will be 110 percent of the largest tank within the bund which is the 23 tonnes. The tank is larger than required by the operations on site, however it will allow spare capacity which can be utilised in the event of abnormal operations.

The suitability of the bund to contain liquid will be tested by a structural engineer and certified prior to operation. It will then be placed on the bund register and be tested every three years.

In the abnormal event of a blood spill, the blood would be contained within the bund. A large blood spill within the bund would be removed by tanker for rendering as an animal by-product. Smaller spills would be pumped to the on site waste water treatment plant. The site operators are trained in spill response and spill kits are located at the site. Any spillage will be cleaned up immediately (or within a few hours if a tanker is required) to minimise human health and odour risk.

We agree that the proposed storage and containment for the blood, ETP and chemicals are suitable at the site meet our requirements for adequate storage and containment.

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
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with Regulatory Guidance Note 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. The decision was taken in accordance with our guidance.	✓
Operator		
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 EPR Regulatory Guidance Note 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		
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. A full assessment of the application and its potential to affect the site was carried out as part of the original permitting process. This variation will not result in any new emissions to air, land or water. A new DAF plant will provide primary treatment to the waste water produced from the installation, the treated effluent will continue to discharge to sewer as previously	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>permitted.</p> <p>Odour emissions will be reduced by the introduction of a new refrigerated blood process.</p> <p>See key issues for further information.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	
Environmental Risk Assessment and operating techniques		
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>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes:</p> <ul style="list-style-type: none"> • BAT (Best Available Techniques) Reference Document (BREF): Best Available Techniques in the Slaughterhouses and Animal By-products Industries • Technical guidance note: How to comply with your environmental permit, Additional guidance for: The Red Meat Processing (Cattle, Sheep and Pigs) Sector (EPR 6.12) • Technical guidance note: How to comply with your environmental permit, Additional guidance for: The Food and Drink Sector (EPR 6.10) • Guidance note: How to comply with your environmental permit <p>We consider that the emission limits included in the installation permit reflect the BAT for the installation.</p>	✓
Improvement condition	<p>Table S1.3 Improvement programme requirements has been updated.</p> <p>IC4 'The Operator shall install flow monitoring equipment and automatic sampling equipment on the principal discharge to sewer (S2)' has been discontinued as the operator has agreed with united utilities that the company would monitor the incoming water into each discharge point with a number of individual inline electromagnetic flow meters instead.</p>	

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>As United Utilities PLC are responsible for regulating the emissions of waste water to sewer we accept this proposal and have removed the need for IC4.</p> <p>IC5 has been added to ensure that measures are implemented to improve the secondary containment of the Dissolved Air Flotation unit and associated storage tanks.</p> <p>IC6 has been added to ensure that procedures are in place to review the composition of the sludge produced during the effluent treatment process to ensure that it meets the requirements for land spreading and that contingency measures are in place if it doesn't.</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.</p> <p>The operator has agreed that the new conditions are acceptable.</p>	✓
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>This measure has been added so that a plan is submitted showing the exact layout and location of the new blood storage and processing facility prior to the system being installed and operated.</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	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	taken in accordance with RGN 5 on Operator Competence.	
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in Regulatory Guidance Note 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 Regulatory Guidance Note 5 on Operator Competence.	✓

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.

Response received from
Health & Safety Executive email 17/11/2014
Brief summary of issues raised
No issues raised.
Summary of actions taken or show how this has been covered
No action necessary

Response received from
Environmental Health Department - Hyndburn Borough Council Letter dated 10/12/2014
Brief summary of issues raised
There have been sporadic complaints regarding malodours from the site. There are preplanning application discussions/assessments for a large housing development in fields adjacent to this site, if realised this would bring receptors much closer to the installation and therefore a potential source of noise/odour nuisance. Providing the assurances of the plant operator are sound i.e. the proposals will not cause odour/noise impact, then this should cause no problem to future developments and indeed not impact on current residents. To protect the amenity of residents it would be helpful to ensure deliveries and working during the development are restricted to avoid disturbance and that noise, fumes, dust and odour are controlled during the works for the same reason.
Summary of actions taken or show how this has been covered
The Operator is required to manage activities at the abattoir in accordance with their odour and noise management plans, submitted with their original application. Odour management has also been addressed in this variation as discussed in the key issues section of this document. Compliance relating to odour and noise is laid out in conditions 3.3.1 & 3.3.2 for odour and 3.4.1 & 3.4.2 for noise in the permit document and written into the operating techniques.

This proposal was also publicised on the Environment Agency's website between 13/11/2014 and 12/12/2014, but no representations were received during this period.