

Natural Resources Wales permitting decisions

AB InBev UK Limited – Magor Brewery

Decision Document

Contents

Contents	2
Variation	3
Purpose of this document	3
Key issues of the decision	4
Outline of application	4
Our decision	5
Receipt of Application	5
Consultation	6
The Legal Framework	6
The Installation	7
The Site	7
Administrative issues	9
OPRA	9
Relevant Convictions	10
Financial Provisions	10
Management System	10
Best Available Techniques (BAT)	11
Energy Efficiency	11
Water Consumption and Wastewater Discharge	12
Harmful substance	12
Noise	12
Containment (CIRIA C736)	12
Increased effluent	13
Waste	14
Raw Materials	14
Medium Combustion Plant & Energy Efficiency Directive	14
Water	14
Habitat Impact Assessment	15
Point Source Emissions to Air	15
Point Source Emissions to Water	15
Translating BAT into Permit Conditions	15
Monitoring	16
Reporting	16

Variation

The variation number is: EPR/BX7282IS/V009

The applicant /operator is: AB InBev UK Limited

The Installation is located at: Magor Brewery, The Brewery, Wilcrick, Magor, Caldicot, Monmouthshire, NP26 3RA

We have decided to issue the variation for Magor Brewery operated by AB InBev UK Limited.

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.

Key issues of the decision

The key issues in this determination include:

- Best Available Techniques (BAT)
- Containment
- Increased effluent

Outline of application

This permit variation intends to:

- Install a new dedicated keg filling line with the capacity to fill 1600 kegs an hour (equal to 500 khl/year) and a 'Pick and Pack' area.
- Use the current lorry parking area which will be developed and have the new kegging building constructed to be included within the existing permit boundary.
- Allow for the packaging and flash pasteurisation of keg beer, from receipt of beer to despatch of final product.
- Install a new drainage system to direct surface water run-off to the on-site wastewater treatment plant, to combine with process effluent and surface water from the rest of the site, prior to treatment at the off-site Effluent Treatment Plant (ETP).

The changes proposed by this variation application will include an addition to an activity references to the existing Part A(1) activity. The throughput of the new 'Perfect Draft' plant is below the 300 tonnes per day, which does not represent a listed Activity therefore, the Directly Associated Activity will remain unchanged.

The process to be introduced as part of this variation does not result in any additional emissions to air from the process. The discharge to water from the process matches

those from the existing processes at the site and is directed to the existing ETP and will not affect the current consented discharge levels.

Our decision

We have decided to issue the variation for the Magor Brewery operated by AB InBev UK Ltd. We consider that, in reaching this decision, we have taken into account all relevant considerations and legal requirements and that the permit will ensure that a high level of protection is provided for the environment and human health.

This Application is to operate an installation which is subject principally to the Environmental Permitting Regulations 2016 (EPR) and is subject to the requirements of the Industrial Emissions Directive (IED).

The permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard conditions appropriate. This document should be read in conjunction with the application and supporting information and permit.

Receipt of Application

The Application was accepted as duly made on 08/06/2022. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

The Applicant made no claim for commercial confidentiality. We have not received information in relation to the Application that appears to be confidential in relation to any party.

Consultation

We have not carried out consultation on the Application in accordance with the Environment Permitting Regulations (EPR), our statutory Public Participation Statement (PPS) and our Regulatory Guidance.

The Legal Framework

The variation will be issued, under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is: an installation as described by the IED;

- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that this decision is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales, and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in granting the Permit a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

The Installation

The Installation is subject to the EPR because it carries out an activity listed in Part 1 of Schedule 1 of the EPR:

- Section 6.8 A(1)(d)(ii) – Treating and processing materials intended for the production of food products from vegetable raw materials at a plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis)
- Section 1.1 A(1)(a) - Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts
- Section 5.4 A(1)(a)(i) Disposal of non-hazardous waste in facility with a capacity exceeding 50 tonnes per day by biological treatment

An installation may also comprise “directly associated activities”, which at this Installation includes:

- Disposal of surface water at main brewer site
- Disposal of surface water at the effluent treatment plant site
- Cleaning of biogas prior to combustion
- Flaring of biogas prior to combustion
- Combustion of biogas in a gas engine with a rated thermal input of <1MW
- Packaging and flash pasteurisation of keg beer (included via this variation)

Together, these listed and directly associated activities comprise the Installation.

The Site

The proposed location for the new ‘Perfect Draft’ kegging line is currently in use as a lorry parking area at Magor Brewery. The new building design, will be dedicated to the Perfect Draft facility which will include the following:

- Electrical substation
- Buffer area including the handling of returned empty kegs
- Recycling area
- Trailer Docks
- Hallway with racks for finished kegs waiting to be shipped (capacity of 96 pallets)
- Filling line
- Raw material storage, stored in double stacks on racks and capacity for 172 pallets
- Offices

The new 'Perfect Draft' filling line will consist of the following (see figure below):

- Road tanker unloading stations
- A beer cooler
- 8 bright beer tanks (BBTs):
- Indoor cleaning in place (CIP) station with a cold CIP dedicated to the BBTs and a hot CIP dedicated to the cleaning of the process equipment, filling line and road tanker unload:

application and subsistence fees are appropriate and proportionate for the level of regulation required. The OPRA score at the installation is 97, this will form the basis for ongoing subsistence fees.

Relevant Convictions

NRW's COLINS Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.

Financial Provisions

There is no known reason to consider that the operator will not be financially able to comply with the permit. The decision was taken in accordance with RGN 5 on Operator Competence.

Management System

The Applicant has included a summary of their own management system. The Facility operates an Environmental Management System (EMS) under its Voyager Plant Optimisation (VPO) corporate standard. The system in place aims to continually improve the leading to both improvements in both environmental and economic performance. Table 4.1 of the *AB InBev UK Limited Environmental Permit Variation Application*, details the Environmental Risk Assessment for the proposed variation, which is an amendment to the Facilities overall Environmental Risk Assessment (1700003382_Environmental Risk Assessment, Ramboll, September 2019) that addresses changes and new potential risks under the proposed variation.

The Operator has stated they are currently compliant with BAT conclusion 1 of Food, Drink and Milk Industries with the exception of BAT 1 ii. The Installation is operated according to an EMS and corporate standard. The one aspect that requires improvement is adherence with BAT 1 ii. – the context of the organisation and the needs and expectations of interested parties. The Operator has stated they will be compliant with this by 4 December 2023.

Best Available Techniques (BAT)

The applicant has provided an assessment to include the changes to activities at the Facility against the relevant sections of the indicative BAT relevant to the Food and Drink Manufacture sector, as updated in 2019.

The relevant sections of BAT that are addressed under this variation application are as follows:

- Energy Efficiency (BAT 6)
- Water Consumption and Wastewater Discharge (BAT 7)
- Harmful substances (BAT 8)
- Noise (BAT 13 and 14)
- Containment (CIRIA C736)

We are in satisfied that the techniques that the Operator have addressed within the application will enable the highest level of prevention in order to minimise emissions and reduce any potential impact of human and environmental health.

The permit has also undergone a recent BRef review and the rest of the site was assessed against the relevant BAT conclusions.

Energy Efficiency

As part of the Facilities VPO, it is a requirement to measure and monitor the energy consumption used by the Facility. The equipment to be installed as part of the Perfect Draft operation has been chosen due to its high energy efficiency. Once operations have commenced, AB InBev are required to study and adjust the equipment's performance to ultimately increase in utility effectiveness. Equipment performance is detailed in Table 6.1 of the submitted permit variation application along with the

expected annual utility consumption from the Perfect Draft operations outlined in Table 6.2. of the submitted permit variation application document.

Water Consumption and Wastewater Discharge

Water consumption is expected to be increased by 548 m³ per year which included water use in the product as well as Cleaning In Place (CIP). BAT 7 is referenced in order to apply techniques used to reduce water consumption and the volume of wastewater discharged outlined in Table 6.4 of the permit variation application document. These common BAT techniques relate to water usage and cleaning operation that are relate to operations that are a result of this variation. We consider the techniques outlined adequate for the applied variation.

Harmful substance

BAT 8 is referred to in Table 6.5, that outlines the techniques used in order to prevent or reduce the use of harmful substances in cleaning and disinfection. The techniques referenced in the table uses one or a combination of techniques that will be used in the Perfect Draft line operations.

Noise

Table 6.6 refers to BAT 14. The techniques are outlined in order to prevent or, where that is not practicable, to reduce the noise emissions produced by the new Perfect Draft line operations.

Containment (CIRIA C736)

The Applicant has confirmed that the operations associated with the Perfect Draft made under this variation are in line with CIRIA C736 guidance on (Containment systems for the prevention of pollution). Storage areas are provided with sealed drainage and storage tanks for concentrated acid and alkali contain bunding with 110% of the capacity of the primary container.

Bright beer tanks are not bunded however, they are located on an impermeable surface with drainage channels directed to the EPT, that is capable of treating any loss of containment from the bright beer tanks. The EPT also contains a 'Calamity Tank' capable of holding up to 16 hours' worth of effluent from the entire Installation at Magor Brewery, acting as a remote containment system for the site. Any loss of containment within the Calamity Tank can then be fed at a controlled rate into the EPT to optimise treatment. The overall Site Hazard Rating for the installation is considered low (taking into account the low-hazard nature of the materials stored on site and the routing of all drainage through the ETP with associated emergency storage), and overall site risk rating is low. The provision of a combined containment system consisting of local secondary containment for the concentrated chemical storage and remote secondary/tertiary containment for low-risk liquid materials (primarily beer) is considered to align with CIRIA 736 guidance.

Increased effluent

Any product that enters the sites drainage system, surface water run-off will be directed to the wastewater treatment plant that serves the whole Installation, to combine with process effluent prior to treatment at the ETP.

The effluent treatment plan currently has capacity of 10,000 m³/day throughput. Current throughputs are approximately 4,000 m³/day, providing sufficient headroom. The estimated daily discharge from the Perfect Draft facility is expected to be 15 m³/day, or approximately 0.4% of the current discharge rate (and 0.15% of the total consented discharge rate). The nature of effluent (acid/alkali wash from CIP plus out of specification beer) aligns with current effluent discharge to the plant and does not require any adjustment to the effluent plant operation, which included pH adjustment and anaerobic/aerobic treatment. There are to be no changes to the performance of the plant or adjustments of the assessed discharge to the estuary therefore, no point sources are to be changed in the permit.

Waste

Under the VPO, the Facility is required to measure and monitor its waste production and has targets to improve resource efficiency and overall reduce waste generation. This activities under the proposed variation will not make any changes to the current processes, or raw materials used at the Facility and do not lead to changes in the composition of wastes produced. The Operator will aim to eliminate or to reduce waste where possible.

Raw Materials

The raw materials for the Perfect Draft operations are to be used for the CIP systems. These materials are to caustic (1% sodium hydroxide) and acid (0.25% of nitric acid and 0.5% of sulphuric acid). These materials have been selected to optimise the cleaning of the CIP systems and to meet food hygiene requirements.

It is estimated that a maximum of 8 m³/day of caustic and 8 m³/day of acid shall also be used.

Safety Data Sheets for these materials are covered in Appendix 5 of the permit variation application document.

Maximum capacity will be limited to the agreed figure provided in response to part (b) of Improvement Condition 19.

Medium Combustion Plant & Energy Efficiency Directive

There are no new combustion sources that are proposed under this variation for the new 'Perfect Draft' Facility therefore, MCP is not applicable. This new operation does not introduce any new combustion plant and therefore Schedule 25A of the Environmental Permitting Regulations are not applicable to this variation.

Water

AB InBev intends to collect and utilise as much rainwater as possible and therefore have put together a surface water strategy. Rainwater (and other recovered waters) will be used to supply evaporative containers on the cooling systems which required 1200 Hectare litres of water per day for operation.

The surface water strategy is summarised in a drainage strategy technical report included within the permit variation application document. The report summary is supported by the drawing: Y21031 – 200 – Drainage Strategy Layout.

Habitat Impact Assessment

No habitat impact assessment is required as part of this variation as no point source emissions are to be added.

Point Source Emissions to Air

We have decided no additional emission limited should be set as there are no additional point source emissions to air.

Point Source Emissions to Water

We have decided no additional emission limited should be set as all drainage channels will be directed back to the EPT. In addition clean uncontaminated water will be collected and used as part of the surface water strategy detailed above. Surface water emission point W5 will remain as this will continue to discharge uncontaminated surface water from the surrounding lorry park areas where the 'Perfect Draft' facility will be situated to highways drainage.

Translating BAT into Permit Conditions

Article 14(3) of IED states that BAT conclusions shall be the reference for permit conditions. Article 15(3) further requires that under normal operating conditions; emissions do not exceed the emission levels associated with the best available techniques as laid down in the decisions on BAT conclusions. BAT conclusions set out specific limits that the operator must comply with. The installation must comply

with the BAT Conclusions of the Food, Drink and Milk Industries BRef Document (EU 2019).

Monitoring

We have decided that monitoring should be carried out for the parameters listed in Schedule 3 of the permit using the methods and to the frequencies specified in those tables. These monitoring requirements have been imposed in order to demonstrate compliance with the emissions limits in the permit.

Based on the information in the Application and the requirements set in the conditions of the permit we are satisfied that the monitoring techniques, personnel and equipment employed by the Operator will have either MCERTS certification or MCERTS accreditation as appropriate

Reporting

We have specified the reporting requirements in Schedule 4 of the Permit to ensure data is reported to enable timely review by Natural Resources Wales to ensure compliance with permit conditions and to monitor the efficiency of material use and waste recovery at the installation.