

Natural Resources Wales permitting decisions

AB InBev UK Limited – Magor Brewery Decision Document

Application for a Variation

The application number is: EPR/BX7282IS

The 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 permit, 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.

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Key issues of the decision

The key issues in this determination included:

- Emissions to air
- Best Available Techniques

1 Outline of application

The permit variation intends to:

- include the addition of a Flue Ace system which aims to recover heat to pre-heat water prior to heating by the boilers, resulting in a reduction in natural gas used by the installation;
- address the planned addition of 12 fermentation vessels and 4 additional silos, and the installation and operation of a fourth bottling line within the existing Installation boundary;
- add a release point for the discharge of surface water from the newly constructed lorry park to the highways drainage system;
- extend the site boundary to the south to incorporate a new modular storage facility;
- remove the two original (A5 and A6) CHP plant emission points from the permit; and
- downgrade the Part A activity for the burning of fuel in plant with a rated thermal input of >50MW, to a Part B activity for burning any fuel in a boiler with a net rated thermal input of 20 or more megawatts, but a rated thermal input of less than 50 megawatts.

One new emission point, and one new discharge point shall be added due to the variation; however, it is planned that the variation shall also remove two existing emission points from the permit. Following review of the drafted permit, the registered company address on the permit was changed to reflect that stated on companies house website. Monitoring of sulphur dioxide in the process monitoring table was also removed from the permit as the Operator stated there is no connection in place to enable the boilers to use fuel oil

and fuel oil is no longer used as fuel for the combustion sources at the site, therefore removing the requirement for monitoring of sulphur dioxide.

2 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.

3 How we reached our decision

3.1 Receipt of Application

The Application was accepted as duly made on 12/10/2020. 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 a claim for 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.

3.2 Consultation on the Application

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

4 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.

4.1 Environment Wales Act 2016 – Biodiversity and resilience of ecosystems duty

Section 6 of the Environment Wales Act 2016 requires that we seek to maintain and enhance biodiversity in the exercise of our functions, and in so doing promote the resilience of ecosystems, in a manner that is consistent with the proper exercise of our functions. NRW is satisfied that in this case, we have taken into account and had due regard to this duty in so far as it is consistent with the function of determining an application for an Installation under the EPR Regs 2016.

5 The Installation

5.1 Description of the Installation and related issues

5.1.1 The permitted activities

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 5.3 A(1)(c)(i) – Effluent treatment in excess of 300m³ per day.

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

Together, these listed and directly associated activities comprise the Installation. Following issue of this variation, section 1.1 A(1)(a) will become section 1.1 B(a)(i).

5.1.2 The Site

The brewery site is located in Magor, approximately 300m to the south-west of the Magor Services (M4, J23a) and approximately 7.5km west of the M4 Severn Crossing. The site is bound to the north and east by a roadway (B4245), to the south by farmland and by 'Wilcrick Hill' to the west. The village of Magor is located approximately 400m to the east of the site. The site is predominantly flat-lying and is covered by concrete and/ or hardstanding and buildings, with occasional areas of trees and landscaping. The permitted area, i.e. the installation, covers approximately 60% of the site (180,000m²) and comprises chemical storage, a brewhouse, boiler house, combined heat and power (CHP) building (no longer in use), fermentation and maturation vessels, tanker loading bay, maintenance workshop, bright beer building, filtration building, laboratory, recycling facility, cooling towers, sub-stations, restaurant, offices, bottling plant, kegging and canning buildings, refrigeration plant and a packaging hall.

The Applicant has provided an updated 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.

5.1.3 What the Installation does

The installation consists of two physical sites; the main brewery site and the effluent treatment plant (ETP), located approximately 3 km south-east, and connected by an underground pipeline approximately 5 km long. The brewery produces branded beers, with operations at the Facility including brewing, packaging, storage and distribution. Beers brewed on-site, as well as some beers brewed

elsewhere are canned, bottled or kegged at the Facility and stored in the on-site warehouses from where they are collected by HGVs for distribution. Raw materials used during the brewing process include natural spring water (supplied by Welsh Water), malt, hops and other additives such as rice and maize. The process involves five stages; brewing, fermentation, maturation, filtration and packaging. Water is used for cleaning and heating in addition to being a main ingredient of the beer.

5.2 The site and its protection

5.2.1 Assessment of site baseline condition report

The operator has submitted a site baseline condition report which was produced in line with H5 Site Condition Report guidance. The report contains all the required sections as demonstrated in the H5 Site Condition Report template, Sections 1 – 7 have been completed as the installation is currently operational.

A comprehensive desk study review was completed, this detailed the environmental setting of the site, geology, hydrogeology, surface water, ecology, protected sites and history of pollution incidents and potential contamination. Groundwater monitoring and sample collection was completed by Ramboll consultancy in January 2019, this supplemented historic baseline data collected in 2005, collectively both results represent the baseline data. The investigation carried out by Ramboll included UKAS laboratory analysis of four monitoring wells for a suite potential contaminants compromising:

- pH, conductivity, and total petroleum hydrocarbons (TPH), (as petrol range organics (PRO), diesel range organics (DRO), and total TPH) for borehole BH01; and
- pH, conductivity, biological oxygen demand (BOD), chemical oxygen demand (COD), ammonia, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total petroleum hydrocarbons (as PRO, DRO, and total TPH) for boreholes BH03, BH07, and WS03.

The results of the January 2019 groundwater monitoring did not identify any significantly elevated concentrations when compared to the 2005 reference data and the available data from December 2017. However, ammonia was recorded in BH07 (located at the brewery) and WS03 (located at the ETP) at concentrations exceeding those recorded in December 2017, and slightly exceeding the relevant assessment criteria. Results are not indicative of significant groundwater contamination; and inclusion of ammonia analysis in the SPMP groundwater monitoring is considered to be sufficient, with no further action required at this stage.

There are no changes to the relevant hazardous substances as a consequence of the variation application. We are satisfied the operator has provided a satisfactory description of the condition of the site. This decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

5.3 Operation of the Installation – general issues

5.3.1 Administrative issues

The Applicant is the sole Operator of the Installation. We are satisfied that the Applicant is the person who will have control over the operation of the Installation if the Variation were to be issued.

OPRA

We are satisfied that the Applicant's submitted OPRA profile is accurate. The OPRA score will be used as the basis for subsistence and other charging, in accordance with our Charging Scheme. OPRA is Natural Resources Wales method of ensuring 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, this has been reduced from 147 as part of this variation.

Relevant Convictions

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

Financial Provision

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.

5.3.2 Management

The operator has in place an Environmental Management System (EMS) that was produced in line with the requirements set out in “*How to comply with your environmental permit guidance*”. The operator submitted a summary of the EMS with their application and we have reviewed it in line with relevant guidance. The EMS follows the Voyager Plant Optimisation (VPO) corporate standard, which is audited by BSi.

We are satisfied that appropriate management systems and management structures will be in place for this Installation, and that sufficient resources are available to the Operator to ensure compliance with all the Permit conditions.

5.3.4 Accident management

In order to ensure that the management system proposed by the Applicant sufficiently manages the residual risk of accidents, permit condition 1.1.1a requires the implementation of a written management system which addresses the pollution risks associated with, amongst other things, accidents. The Applicant already implements an Accident Management Plan on site.

Having considered the information submitted in the Application, we are satisfied that appropriate infrastructure and procedures are in place to ensure accidents are minimised and managed effectively.

5.3.5 Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The relevant guidance notes for this variation are:

- How to comply with your environmental permit (October 2014)
- Reference document on Best Available Techniques for the Food, Drink and Milk Industries (2019)
- Technical Guidance Note M1: Sampling requirements for stack emission monitoring

Sampling of point source emission to air (A9) are in line with the sampling requirements outlined in TGN M1. No further additional controls for sampling are required.

The main activity is referenced in the Food, Drink and Milk Industries BAT reference document (BRef). BAT Conclusions for the Food, Drink and Milk Industries were published as Commission Implementing Decision EU 2018/1447 in the Official Journal of the EU on 5 December 2019. 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. These are specified in the Operating Techniques table in the permit.

5.3.6 Efficient use of raw materials, water and energy

The Flue-Ace heat recovery system is designed to recover lost heat from steam and to re-use this heat to pre-warm water for the boilers, and represents BAT for boiler efficiency. The operator estimates that this will reduce natural gas consumption at the Facility by approximately 5%.

Water and energy usage at the installation is monitored monthly and informs the annual consumption, energy efficiency is measured using a MWh/tonne of finished product metric. The Operator is required to report water and energy usage under condition 4.2 and Schedule 4. This will enable Natural Resources Wales to monitor energy recovery efficiency at the Installation.

5.3.7 Avoidance, recovery or disposal of wastes produced by the activities

Waste is managed in accordance with the Waste Hierarchy. Where possible, waste is eliminated or reduced. For example, spent yeast is no longer considered a waste product as it is sold for further use in the food and drink industry. In addition, sludge collected from the Effluent Treatment Plant is incinerated to generate waste from energy. All other waste produced is segregated and recycled as far as possible. The proposed variations to the activities do not make changes to the processes, or the raw materials used at the Facility, and therefore do not change the composition of wastes produced.

We are satisfied that waste from the Installation that cannot be recovered will be disposed of offsite using a method that minimises any impact on the environment. Permit condition 1.4.1 will ensure that this position is maintained.

6 Minimising the Installation's environmental impact

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. These factors are discussed further in the following sections of this document.

We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory for noise, odour and emissions to air and surface water.

6.1 Assessment of Impact on Air Quality

This section of the decision document deals primarily with the dispersion modelling of emissions from the proposed Flue Ace Heat Recovery System (A9) and its impact on local air quality.

The Applicant has assessed the Installation's potential emissions to air against the relevant air quality standards, and the potential impact upon human health. These assessments predict the potential effects on local air quality from the Installation's stack emission. The air impact assessment, and the dispersion modelling has been based on the Installation operating continuously at the relevant long-term or short-term emission limit values, i.e. the maximum permitted emission rate.

The assumptions underpinning the model have been checked and are reasonably precautionary. The way in which the Applicant used dispersion models, its selection of input data, use of background data and the assumptions it made have been reviewed to establish the robustness of the Applicant's air impact assessment. The output from the model has then been used to inform further assessment of health impacts.

The applicant has used dispersion modelling software (ADMS5) and has modelled using five years on meteorological data from the Cardiff Airport meteorological station. While Cardiff Airport meteorological data may not be representative of the conditions at the site, a comparison of submitted results with our checkmodelling using NWP extract data indicate that difference in predictions are small and will not therefore affect overall conclusions.

The models emission and volumetric flow rates are based on stack monitoring reports. The emission limits have been taken from the sites current environmental permit. As there is no ELV for CO, the applicant has estimated a conservative value of 100mg/Nm³.

Background values for pollutants have been sourced from DEFRA 2020 background maps using a relevant monitoring station. The applicant has modelled predicted impacts of long-term and short-term NO_x in line with relevant government guidance 'Air emissions risk assessment for your environmental permit', they have calculated the process contribution (PC) and predicted environmental

concentration (PEC). Predicted impacts have been modelled at 22 human receptors, these are a range of residential and non-residential receptors.

Oxides of Nitrogen (NO and NO₂ expressed as NO₂) (NO_x)

A long-term critical level of 40 µg/m³ (annual) and short-term critical level of 200 µg/m³ (hourly) was assumed for NO_x. At sensitive receptor locations the maximum predicted long-term PC was >1 % (13.9 %) and long-term PEC <70 % (48.6%) of the long-term critical level. Therefore, in accordance with NRW guidance the long-term impacts from NO_x can be screened out. At sensitive receptor locations the maximum predicted short-term PC was >10 % (24.0%) of the short-term critical level, however the PEC was below 70% at all receptors. Therefore, in accordance with NRW guidance the short-term impacts from NO_x can be screened out.

Carbon Monoxide (CO)

The predicted impacts of Carbon Monoxide (CO) were below 1% and 10% of the relevant AQO, for both long-term and short-term emissions respectively. Therefore, the short-term and long-term impacts from CO can be considered insignificant.

We are satisfied that due to this proposal there are unlikely to be any exceedances of the long-term and short-term air quality standards for NO_x and CO at any of the sensitive receptors identified for the protection of human health.

Combustion activity

Following a review of the combustion capacity at the facility by Natural Resources Wales (NRW) in March 2016, it was confirmed in the Compliance Assessment Report (CAR) dated 29/07/2016 (CAR_NRW0023766), that the total thermal input of combustion plant at the Facility is approximately 47MW, and therefore, due to being <50MW, has been removed from the permit as a Part A activity, and incorporated as a Part B activity: Burning any fuel in a boiler with a net rated thermal input of 20 or more megawatts, but a rated thermal input of less than 50 megawatts. Table S1.1 of the permit has been updated.

6.2 Assessment of impact to surface water and groundwater

This variation adds one discharge point (W5) for the discharge of uncontaminated surface water to highways drainage. An area of hardstanding to be used as a lorry park area is under construction adjacent to the southern site entrance gate. Surface water runoff from the area will discharge to the municipal stormwater drainage system. It is proposed that this discharge is added to the permit as discharge point W5, for the discharge of uncontaminated surface water. No substances or product are to be stored in the area. In the event that an oil leak occurs from a parked-up lorry, spill kits will be available and the site's Spill Response Plan will be implemented. All surface water runoff from the area flows to ACO drainage channels, from where it is to be directed through a Kings Bypass Separator (or similar approved interceptor) to remove any oil-type substances, before passing through a cellular storage tank to control flow to the municipal stormwater drainage system. Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

6.3 Fugitive emissions

The applicant proposes to install four silos for the storage of raw materials on its main brewery site. The silos contain raw dry ingredients including malt, rice and grains. The silos shall be located on an area of hardstanding adjacent to existing silos and an area of car parking. In the event of a spillage of raw ingredients, any surface water drains in the vicinity would be covered, and the spillage shall be swept up and disposed of.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions and to prevent pollution from fugitive emissions.

6.4 Assessment of odour impact

The changes proposed in this variation will not result in any additional odour from the site. Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where not practicable to minimise the effects of odour.

6.5 Noise Assessment

The applicant completed a noise risk assessment which has been assessed by us. The risk assessment concluded that exposure of noise is considered low and there is a low-level impact, in addition no significant noise complaints have been received by the operator.

For this variation the applicant has identified the main sources of noise at the installation as:

- The Flue Ace Heat recovery system
- The new bottling line

In their Best Available Techniques (BAT) assessment the applicant has detailed a number of control measures that will be employed, including:

- New bottling line to be located in an existing building.
- Existing noise management procedures shall be followed.
- The Flue Ace and new bottling line shall be subject to inspection and maintenance programme and operated by experienced staff.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise the effects of noise.

6.6 Impact on National Site Network¹/Ramsar sites, SSSIs and non-statutory conservation sites

¹ As per the amendment to Regulation 3 of the Conservation of Habitats and Species Regulations 2017: [The Conservation of Habitats and Species \(Amendment\) \(EU Exit\) Regulations 2019 \(legislation.gov.uk\)](#). National Site Network means the network of sites in the United Kingdom's territory consisting of such sites as – (a) immediately before exit day formed part of Natura 2000; or (b) at any time on or after exit day are European sites, European marine sites and European offshore marine sites for the purposes of any of the retained transposing regulations.

The installation is within the relevant screening distance criteria for protected conservation sites. A full assessment of the application and its potential to affect any of the sites has been carried out as part of the permit determination process. National Site Network¹/Ramsar sites, SSSIs and local nature sites will be discussed in detail separately below.

National Site Network¹/Ramsar sites

The following National Site Network¹/Ramsar sites are located within 10 km of the installation:

- Severn Estuary SAC, SPA and Ramsar site
- River Usk SAC
- Wye Valley/Forest of Dean Bat sites

An OGN 200 Form 1 (Habitats Regulation Assessment) was completed to assess the potential to affect the National Site Network¹ site, this is available on the public register a summary is given below.

The principal emissions associated with this variation are emissions to air from combustion sources and emission to surface water of uncontaminated run-off from yard areas.

Emissions to air

Emissions to air of NO_x from combustion sources has been assessed in the HRA in terms of acidification and nutrient enrichment of designated sites. A long-term critical level of 30 µg/m³ NO_x (annual) and short-term critical level of 75 µg/m³ NO_x (daily) have been assumed for the designated sites. The maximum long-term process contribution (PC) is <1 % of the long-term critical level therefore long-term impact from NO_x emissions can be considered insignificant. The maximum short-term PC is <10 % (3.4 %) of the short-term critical level. Therefore, short-term impact from NO_x emissions can be considered insignificant

A nutrient nitrogen critical load limit of 3 kgN/ha/yr has been assumed for River Usk SAC, 10 kgN/ha/yr for Wye Valley / Forest of Dean Bat sites SAC and 20 kgN/ha/yr for Severn Estuary SAC, SPA and Ramsar. The maximum nitrogen deposition process contribution is <1 % of all the critical load limits, therefore long-term nutrient nitrogen enrichment impacts can be considered insignificant.

The maximum predicted nitrogen acid deposition at each of the receptors is well below 1% of the relevant critical load. Therefore, Nitrogen acid deposition can be considered insignificant.

Emissions to surface water

Emissions to surface water of uncontaminated rainwater from the yard area has not been assessed in the HRA. We do not consider there to be an impact pathway that could adversely effect the designated site in any way. Emission to surface water associated with this variation can therefore be considered insignificant.

Assessment of Likely Significant Effect:

The project has been screened for likelihood of significant effects and, taking account of the advice received from protected sites advisors, is considered not likely to have a significant effect on any National Site Network/Ramsar site (As documented in section 3.2 and section 5 of OGN 200 form 1).

SSSI Assessment

The following Sites of Special Scientific Interest (SSSI) are located within 2 km of the installation:

- Gwent Levels – Redwick & Llandeenny SSSI
- Magor Marsh SSSI
- Gwent Levels – Magor & Undy SSSI

- Penhow Woodlands SSSI

An Appendix 4 Form was completed to assess the potential to affect the SSSI sites, this is available on the public register, a summary is given below.

Gwent Levels – Redwick & Llandeenny SSSI, Magor Marsh SSSI and Gwent Levels – Magor & Undy SSSI

All three sites share the same interest features, the sites were assessed separately in the Appendix 4 Form but have been grouped for this decision document. Only impacts from air emissions were assessed for the three SSSI's as there is no impact pathway for impacts from water emissions. Increased airborne NOx concentrations, nutrient enrichment and acidification were assessed and discussed separately below.

A long-term critical level of 30 µg/m³ NOx (annual) and short-term critical level of 75 µg/m³ NOx (daily) have been assumed for the three SSSI's. The maximum long-term process contribution (PC) is >1 % of the long-term critical level and the PEC is <70%, therefore long-term impact from NOx emissions can be considered insignificant. The maximum short-term PC is >10 % of the short-term critical level and the PEC is <70%, therefore the short-term impact from NOx emissions can be considered not significant.

The acid deposition critical load value of 2.038 kEq/ha/yr (Max N) has been assumed for the three SSSI's. The maximum acid deposition process contribution is <1% of the critical load value. Therefore, long term acid deposition impacts from NOx emissions can be considered insignificant.

The assessment concluded that the installation is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest.

Penhow Woodlands SSSI

Only impacts from air emissions were assessed for the Penhow Woodlands SSSI as there is no impact pathway for impacts from water emissions. Increased airborne NO_x concentrations, nutrient enrichment and acidification were assessed and discussed separately below.

A long-term critical level of 30 µg/m³ NO_x (annual) and short-term critical level of 75 µg/m³ NO_x (daily) have been assumed for the Penhow Woodlands SSSI. The maximum long-term process contribution (PC) is >1 % of the long-term critical level and the PEC is <70%, therefore long-term impact from NO_x emissions can be considered insignificant. The maximum short-term PC is <10 % of the short-term critical level, therefore the short-term impact from NO_x emissions can be considered not significant.

The acid deposition critical load value of 6.070 kEq/ha/yr (Max N) has been assumed for the Penhow Woodlands SSSI. The maximum acid deposition process contribution is <1% of the critical load value. Therefore, long term acid deposition impacts from NO_x emissions can be considered insignificant.

The assessment concluded that the installation is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest.

Non-Statutory Sites Assessment

There are 7 areas of Ancient Woodlands located within 2 km of the installation, there are 8 Local Wildlife Sites, National Nature Reserves or Local Nature Reserves located within 2 km. In line with NRW guidance, for non-statutory sites assessment criteria considers whether an installation can cause significant pollution. If the process contribution for each pollutant is less than 100 % of the critical level of load, we consider no significant pollution will be caused. The maximum process contributions modelled were well below 100 % of the relevant critical levels or lowest critical loads therefore the impacts can be confidently expected to be insignificant at locations further away.

7 Setting ELVs and other Permit conditions

Point source emissions to air

We have decided that emission limits should be set for the parameters listed in the permit. The following emission limits for point source emissions to air have been set for the Flue Ace Heat Exchanger:

- Oxides of Nitrogen (NO and NO₂ expressed as NO₂)

The emission limit value has been set in line with what has been included in the air dispersion modelling in the application (220 mg/Nm³). It is considered that the emission limit value will ensure that significant pollution of the environment is prevented and a high level of protection of the environment is secured.

Emission points A5 and A6 from the combined heat and power (CHP) plant are being removed from the permit. The units have not been in use for a number of years and have now been decommissioned and removed from site.

Point source emissions to surface water

We have decided that no additional emission limits should be set for the new surface water emission point (W5). W5 will only discharge uncontaminated surface water from lorry park to highways drainage.

7.1 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).

7.2 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.

7.3Reporting

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.