

# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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Heineken UK Limited

Heineken Manchester Brewery  
Denmark Road  
Moss Side  
Manchester  
M15 6LD

### **Variation application number**

EPR/BV7796IW/V015

### **Permit number**

EPR/BV7796IW

# Royal Brewery Manchester

## Permit number EPR/BV7796IW

### Introductory note

#### **This introductory note does not form a part of the notice**

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This consolidated permit has been issued following a full review against the best available techniques (BAT) conclusions for the Food, Drink and Milk Industries published on 4<sup>th</sup> December 2019 in the official journal of the European Union.

We have implemented the requirements of the Medium Combustion Plant directive and incorporated post-dated requirements for 2025.

The schedules specify the changes made to the permit.

#### Multi-operator Installation

The Installation is located on the outskirts of south Manchester city located on Denmark Road, at National Grid Reference SJ 83921 95912. The site is bound by industrial activities beyond which are residential dwellings. It is a multi-operator installation which has two operators – Heineken UK Limited and NSI Industrial O&M Solutions Ltd. The listed activity conducted by Heineken UK Limited is the brewing and packaging of beer, and NSI Industrial O&M Solutions Ltd operate an Effluent Treatment Plant (ETP).

#### Royal Brewery Manchester

This permit is for Heineken UK Limited, the facility manufactures and packages beer.

The Environmental Permit is for the following scheduled activity:

*Section 6.8 A1 (d)(ii) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day.*

The site has a brewing production capacity of up to 2000 tonnes per day, with manufacturing carried out up to 24 hours per day, 7 days per week.

CO<sub>2</sub> is a by-product of the fermentation process, the site has a CO<sub>2</sub> recovery plant for collection, storage, and reuse of CO<sub>2</sub> at the facility. It is used to carbonate beer and for packing. Most cleaning activities on site are carried out via automated cleaning in place (CIP) systems.

There are emissions to air from the process operations associated with the handling of malt, which are mainly particulates, with abatement consisting of bag filters. There are also emissions of combustion gases from four boilers each with a thermal input capacity of 10.56 MWth each boiler is fuelled on natural gas.

Uncontaminated surface water runoff is discharged to United Utilities Moss Lane east sewer. All process effluent generated from processing and packaging is discharged to the onsite ETP operated under the separate permit (EPR/CP3531GM) prior to discharge sewer via Combrook Culvert to Davyhulme Waste Water Treatment Works.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BV7796IW received	Duly made 24/02/2005	
Permit determined BV7796IW	22/12/2005	Permit issued to Scottish Courage Ltd.
Variation notice EPR/BV7796IW/V002 (DP3431LK) issued	27/11/2006	
Variation notice EPR/BV7796IW/V003 (UP3131UM) issued	22/02/2008	
Variation notice EPR/BV7796IW/V004 (SP3736UP) issued	27/06/2008	
Name change (Note: No documents were produced to detail this change)	20/11/2009	Operator name change from 'Scottish & Newcastle UK Ltd' to 'Heineken UK Limited'.
Application EPR/BV7796IW/V005	Duly made 18/09/2012	
Variation notice EPR/BV7796IW/V005 issued	06/11/2012	Variation to upgrade plant for future expansion of production on site.
Variation Application EPR/BV7796IW/V006	Duly made 30/01/2014	Application to alter site layout and equipment including changes to control panels, weigher, yeast vessels, dry goods, blender, kieselguhr handling and filter room and can warehouse. Schedule 1 activity 1.1. A(1) (a) i surrendered.
Additional information received	11/03/2014	Further information received on two additional emission points and details on changes to the dry goods area and kieselguhr handling processes.
Additional information received	12/03/2014	Information was updated to remove changes to the gypsum dust extraction from this application.
Variation EPR/BV7796IW/V006	26/03/2014	Variation issued.
Application EPR/BV7796IW/V007	Duly made 04/06/2014	Application to vary the permit to construct a new IBC storage facility for brewhouse additions, replace the CIP for the packaging area, construct a new central control room, replace twin keggling lines with one keggling line, create a new CIP bulk chemical storage location, replace the roller mills with a hammer mill, replace the malt delivery dust extraction system and construct a new centralised brewing CIP plant.
Additional information received	18/07/2014	Schedule 5 response received detailing the assumptions used in the noise assessment of the keggling activity and noise predictions against background from proposed activities at each sensitive receptor.
Additional information received	30/07/2014	Amended schedule 5 response received with revised calculations and predictions at sensitive receptor.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Variation determined EPR/BV7796IW/V007	28/08/2014	Variation issued.
Application EPR/BV7796IW/V008 (variation and consolidation)	Duly made 29/08/2014	Application to vary (capacity increase) and update the permit to modern conditions.
Additional information received	14/11/2014	Response to Schedule 5 Notice detailing the boiler fuels and use of steam, emissions points and site boundary.
Additional information received	02/12/2014	Amended site plan.
Variation determined EPR/BV7796IW	05/12/2014	Varied and consolidated permit issued in modern condition format.
Application EPR/BV7796IW/V009 (variation and consolidation)	Duly made 09/03/2017	Application to vary and update the permit to modern conditions.
Response to Schedule 5	29/03/2017	Process flow diagram and fermentation expansion capacity and containment.
Variation determined EPR/BV7796IW	18/04/2017	Varied and consolidated permit issued in modern condition format.
Application EPR/BV7796IW/V010 (variation and consolidation)	Duly made 08/11/2017	Application to add new refrigeration units, yeast propagation vessels and fermentation vessels.
Additional information received	19/01/2018	Response to Schedule 5 Notice dated 21/12/17.
Additional information received	07/02/2018, 13/02/2018 & 15/02/2018	Additional information on emission points and containment measures; emergency relief venting for new yeast propagation plant; vessel capacities within yeast propagation plant; operational control on new vessels and inspection of site drains.
Variation determined EPR/BV7796IW	26/02/2018	Varied and consolidated permit issued.
Application EPR/BV7796IW/V011 (variation and consolidation)	Duly made 07/06/2019	Application to remove existing refrigeration unit and add a new/replacement refrigeration unit (with associated equipment), two hybrid cooling towers, two new emission points to air and relocation of existing cooling tower (CT14).
Variation determined EPR/BV7796IW	29/10/2019	Varied and consolidated permit issued.
Part surrender application EPR/BV7796IW/S012	Duly Made 30/04/2020	Application to surrender an area of land to the west of the site.
Application EPR/BV7796IW/V013 (Variation and consolidation)	Duly Made 01/07/2020	Variation application for the following changes on site: <ul style="list-style-type: none"> <li>• Installation of a Flu-Ace heat recovery system;</li> <li>• Installation of two new tanks to provide buffer capacity.</li> </ul>
Part surrender determination EPR/BV7796IW	20/08/2020	Part surrender issued
Variation determined EPR/BV7796IW	20/08/2020	Varied and consolidated permit issued.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/BV7796IW/V014 (Variation and consolidation)	Duly Made 19/08/2021	Variation application for the following changes on site: <ul style="list-style-type: none"> <li>• The installation of eight dual purpose vessels (DPV's), with a new emission point (A56)</li> <li>• Two additional glycol heat exchangers with a capacity of 3,375L per exchanger.</li> <li>• Installation of two new 60 tonne silos to store maize, and a 45 kW blower compressor</li> </ul>
Application EPR/BV7796IW/V015 (variation and consolidation)	Regulation 61 Notice response received 31/01/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Variation determined EPR/BV7796IW/V014	08/04/2022	Varied and consolidated permit issued.
Request for further information	14/06/2023	Received 18/07/2023
Variation determined and consolidation issued EPR/BV7796IW (Billing ref. DP3541QV).	30/01/2024	Varied and consolidated permit issued in modern format

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>
NSI Industrial O&M Solutions Ltd	EPR/CP3531GM	01/04/2009

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

### Permit number

EPR/BV7796IW

### Issued to

**Heineken UK Limited** (“the operator”)

whose registered office is

**3-4 Broadway Park  
South Gyle Broadway  
Edinburgh  
EH12 9JZ**

company registration number SC065527

to operate part of a regulated facility at

**Heineken Manchester Brewery  
Denmark Road  
Moss Side  
Manchester  
M15 6LD**

to the extent set out in the schedules.

The notice shall take effect from 30/01/2024.

Name	Date
Stacey Tapsell	30/01/2024

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/BV7796IW**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BV7796IW/V015 authorising,

**Heineken UK Limited** (“the operator”),

whose registered office is

**3-4 Broadway Park  
South Gyle Broadway  
Edinburgh  
EH12 9JZ**

company registration number SC065527

to operate part of an installation at

**Heineken Manchester Brewery  
Denmark Road  
Moss Side  
Manchester  
M15 6LD**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Stacey Tapsell	30/01/2024

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **1.5 Multiple operator installations**

- 1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator of the installation of the same information.

## **2 Operations**

### **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operator of the installation.

### **2.3 Operating techniques**

- 2.3.1 the activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
- 3.1.5 For the following activities referenced in schedule 1, table S1.1 (AR2 Boilers 1 – 4) the first monitoring measurements shall be carried out within four months of 01/01/2025 or of the date when the MCP is first put into operation, whichever is later.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds, including methane from diffuse sources.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) off-site environmental effects; and
    - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
  - (b) any change in the operator's name(s) or address(es); and
  - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	Section 6.8 Part A(1) (d)(ii)	Treating and processing for the production of food from only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day.	From receipt of raw materials to dispatch of finished products of beer and packaging of cider.  Production capacity is limited to 2000 tonnes per day.
<b>Directly Associated Activity</b>			
AR2	Steam supply	<u>Medium Combustion Plants:</u> 4 x 10.56 MWth Boilers 1 – 4 fuelled on natural gas. Boiler 1 and 2 are also fuelled using biogas. Light fuel oil is used as a backup fuel for the boilers during periods of interruptions to the gas supply.	From receipt of fuel to release of products of combustion to air.  Use of light fuel oil as a backup fuel is limited to 500 hours per year.
AR3	Use of refrigerants	Use of refrigerants in cooling, chilling and/or freezing systems at the installation.	From receipt of raw materials to dispatch of final product.
AR4	Compressed air production	Operation of air compressors, driers and receivers	Site services systems supplying process plant with compressed air across the installation.
AR5	Carbon dioxide recovery	Operation of CO <sub>2</sub> recovery plant used to collect CO <sub>2</sub> from the fermentation process. The CO <sub>2</sub> is treated and liquefied for storage, prior to reuse on site for carbonation further downstream in the process.	From collection of CO <sub>2</sub> emissions from the fermentation process to reuse on site.
AR6	Cleaning in Place (CiP)	Dry and wet cleaning of equipment as specified.	Cleaning activities during/after production runs, including disposal of waste arisings.
AR7	Storage and handling of raw material	Handling and storage of raw materials used in the process.	From receipt & storage of materials to transfer to process areas.
AR8	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.
AR9	Carbon filtration of water	Water is supplied to the carbon filtration plant and is fed to 3 off carbon filters via raw water tank.	Treatment of mains water prior to its use as a raw material in the brewing process.

AR10	Wastewater effluent handling and storage	Storage and handling of waste water effluent arising from processing activities, prior to discharge to waste water treatment facility for treatment.	From generation of process effluent to discharge of effluent to waste water facility (regulated under permit reference EPR/CP3531GM) via discharge points E1 and E2.
AR11	Packaging, storage and despatch of final product	Storage and packaging of product in dedicated facilities. Loading facilities for tankers and other vehicles.	From delivery points into storage, packaging and despatch facilities to the points at which products leave the permit boundary.
AR12	Flue Ace System	Operation of Flue Ace, heat recovery system	Recovery of wasted heat energy from boiler flue gas exhaust prior to its use to pre-heat the boiler feed water.
AR13	Cooling Towers	Operation of cooling towers	From the receipt, handling and circulation of water for cooling.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Regulation 61 (1) Notice – Responses to questions dated 31/01/2022	All parts	Received 09/03/2022
Regulation 61(1) Notice – request for further information dated 14/06/2023	Information relating to BAT7, BAT8, BAT10, BAT17, MCP, RHS Baseline, Air Emission, and Climate Change Adaptation.	Received 18/07/2023
Request for further information dated 27/09/2023	Production capacity	29/09/2023

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC27	The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 6 and 18 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.	29/02/2024 (1 month from permit issue)
IC28	The operator shall review and update the H1 risk assessment for particulate emissions to air at the capacity levels stated within table S1.1 of this permit. The H1 shall be submitted to the Environment Agency for review.	30/01/2025 (12 months from permit issue) or other date as agreed in writing with the Environment Agency

IC29	<p>The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point A51 and A52, identifying the fractions within the PM10 and PM2.5 ranges. The monitoring shall be carried out under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency.</p>	<p>30/01/2025 (12 months from permit issue) or other date as agreed in writing with the Environment Agency</p>
IC30	<p>The operator shall produce a monitoring plan detailing how the management of relevant hazardous substances which did not screen out as low risk, based on the RHS baseline assessment, will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval, including timescales to undertake any infrastructure improvements.</p>	<p>30/01/2025 (12 months from permit issue) or other date as agreed in writing with the Environment Agency</p>
IC31	<p>The operator shall produce a climate change adaptation plan, which will form part of the EMS.</p> <p>The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• Details of how the installation has or could be affected by severe weather;</li> <li>• The scale of the impact of severe weather on the operations within the installation;</li> <li>• An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.</li> </ul> <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p>	<p>30/01/2025 (12 months from permit issue) or other date as agreed in writing with the Environment Agency</p>

## Schedule 2 – Waste types, raw materials and fuels

<b>Table S2.1 Raw materials and fuels</b>	
<b>Raw materials and fuel description</b>	<b>Specification</b>
Gas oil	Less than 0.1% sulphur content

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements							
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method	
A1 [a, b and c] on site plan in Schedule 7	Boiler Plants 1, 2 and 3 (each are 10.56MWth) fuelled on Natural Gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> [NOTE1]	Periodic	Annual	MCERTS BS EN14792	
		Carbon monoxide	No Limit [NOTE1]	Periodic	Annual	MCERTS BS EN15058	
	Boiler Plants 1 and 2 (each are 10.56MWth) fuelled on Biogas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	250 mg/m <sup>3</sup> [NOTE 1]	Periodic	Annual	MCERTS BS EN14792	
		Sulphur dioxide (SO <sub>2</sub> )	170 mg/m <sup>3</sup> [NOTE 1]	Periodic	Annual	MCERTS BS EN14791	
		Carbon monoxide	250 mg/m <sup>3</sup> [NOTE 1]	Periodic	Annual	MCERTS BS EN15058	
	Boiler Plants 1, 2 and 3 (each are 10.56MWth) fuelled on gas oil	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	No limit	Periodic	After 500 operating hours have elapsed and no less frequent than every 5 years from date of acceptance of first monitoring measurements under condition 3.1.4	MCERTS BS EN14792	
		Carbon monoxide	No limit	Periodic		MCERTS BS EN15058	
	A2 on site plan in Schedule 7	Boiler Plant 4 (10.56MWth) fuelled on Natural Gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> [NOTE1]	Periodic	Every three years	MCERTS BS EN14792
			Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
		Boiler Plant 4 (10.56MWth) fuelled on gas oil	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	No limit	Periodic	After 3 times the maximum annual operating hours have elapsed and no less frequent than every 5 years	MCERTS BS EN14792
Carbon monoxide			No limit	Periodic	MCERTS		

					from date of acceptance of first monitoring measurements under condition 3.1.4	BS EN15058
A3 and A4 on site plan in schedule 7	Mash mixer (Brewhouse)	No parameters set	No limit set	--	--	--
A7 and A8 on site plan in schedule 7	Copper (Brewhouse)	No parameters set	No limit set	--	--	--
A9 and A10 on site plan in schedule 7	Whirlpool (Brewhouse)	No parameters set	No limit set	--	--	--
A14 on site plan in schedule 7	Fermentation	No parameters set	No limit set	--	--	--
A15 on site plan in schedule 7	Maturation	No parameters set	No limit set	--	--	--
A16 on site plan in schedule 7	Refrigeration (Denmark road)	No parameters set	No limit set	--	--	--
A16a and A16b on site plan in schedule 7	Refrigeration (2018 – above Bright Beer Room)	No parameters set	No limit set	--	--	--
A17 on site plan in schedule 7	Can filler and buffer tanks (roof)	No parameters set	No limit set	--	--	--
A18 on site plan in Schedule 7	Keg buffer tanks (Roof)	No parameters set	No limit set	--	--	--
A43 on site plan in Schedule 7	New Fermentation Block	No parameters set	No limit set	--	--	--
A44 on site plan in Schedule 7	New Yeast Propagation Vessel	No parameters set	No limit set	--	--	--
A45 on site plan in Schedule 7	Gypsum silo	No parameters set	No limit set	--	--	--
A46 to A49 on site plan in Schedule 7	Kieselguhr silo	No parameters set	No limit set	--	--	--
A50 on site plan in Schedule 7	Kieselguhr batch weigher	No parameters set	No limit set	--	--	--
A51 on site plan in schedule 7	Hammer Mill dust extraction systems with	Particulate matter	10 mg/m <sup>3</sup>	Average over sampling period	Annually	MCERTS BS EN 13284-1

	bag filter abatement					
A52 on site plan in schedule 7	Malt tanker delivery dust extraction system with bag filter abatement	Particulate matter	10 mg/m <sup>3</sup>	Average over sampling period	Annually	MCERTS BS EN 13284-1
NOTE 1 - Emission limit requirements apply from 1 January 2025, unless otherwise advised by the Environment Agency.						

<b>Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 on site plan in Schedule 7 emission to United Utilities Moss Lane east sewer	Uncontaminated surface water	No parameters Set	No limit set	--	--	--
S2 on site plan in Schedule 7 emission to United Utilities Princess Road sewer	Uncontaminated surface water	No parameters Set	No limit set	--	--	--
S3 on site plan in Schedule 7 emission to United Utilities Moss Lane east sewer	Uncontaminated surface water	No parameters Set	No limit set	--	--	--
E1 on site plan in Schedule 7 emission to onsite ETP operated by 3 <sup>rd</sup> party	Brewery effluent discharges	Chemical Oxygen Demand (COD) (kg) [NOTE 1]	No Limit Set	--	Annual [NOTE 2]	To standards in M18: Monitoring of discharges to water and sewer, or as otherwise agreed in writing.
		Chemical Oxygen Demand (COD) (mg/l) [NOTE 1]	No Limit Set	Daily Composite Sample	Every Month	
		Effluent Volume (m <sup>3</sup> ) [NOTE 1]	No Limit Set	--	Annual	
E2 on site plan in Schedule 7 emission to onsite ETP operated by 3 <sup>rd</sup> party	Packaging Effluent Discharges	Chemical Oxygen Demand (COD) (kg) [NOTE 1]	No Limit Set	--	Annual [NOTE 2]	To standards in M18: Monitoring of discharges to water and sewer, or as otherwise agreed in writing.
		Chemical Oxygen Demand (COD) (mg/l)	No Limit Set	Daily Composite Sample	Every Month	
		Effluent Volume (m <sup>3</sup> ) [NOTE 1]	No Limit Set	--	Annual	
NOTE 1 – Combined results from E1 & E2						
NOTE 2 – Calculated from twelve monthly results and annual effluent volume						

<b>Table S3.3 Annual limits</b>		
<b>Substance</b>	<b>Medium</b>	<b>Limit (including unit)</b>
Oxides of nitrogen	Air	120,000 kg (as NO <sub>2</sub> ) in a year

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Point source emissions to air Parameters as required by condition 3.5.1	A51, & A52	Every 12 months	1 January
	A1 (fuelled on natural gas or biogas)	Every 12 months	From first monitoring requirements in accordance with Condition 3.1.5
	A1 (fuelled on gas oil)	After the maximum average annual operating hours have elapsed and no less frequent than every 5 years from date of acceptance of first monitoring measurements under condition 3.1.5.	From first monitoring requirements in accordance with Condition 3.1.5
	A2 (fuelled on natural gas or biogas)	Every 12 months	From first monitoring requirements in accordance with Condition 3.1.4
	A2 (fuelled on gas oil)	After 3 times the maximum average annual operating hours have elapsed and no less frequent than every 5 years from date of acceptance of first monitoring measurements under condition 3.1.4	From first monitoring requirements in accordance with Condition 3.1.4
Point source emissions to sewer, effluent treatment plant or other transfers off-site Parameters as required by condition 3.5.1	E1 & E2	Every 12 months	1 January

<b>Table S4.2: Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
Production of beer	hectolitres
CO <sub>2</sub> recovered	tonnes
CO <sub>2</sub> used at the facility	tonnes

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Water usage	Annually	m <sup>3</sup>

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Energy usage	Annually	MWh
Waste – recovery/disposal routes	Annually	tonnes
COD efficiency	Annually*	COD te/te product
Food waste	Annually	tonnes
Oxides of nitrogen	Annually	kg (as NO <sub>2</sub> ) in a year
*COD efficiency to be calculated on a weekly frequency, reported annually		

<b>Table S4.4 Reporting forms</b>		
<b>Parameter</b>	<b>Reporting form</b>	<b>Form version number and date</b>
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to sewer, effluent treatment plant or other transfers off-site	Emissions to Sewer Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Food waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1 06/02/2023
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the breach of permit conditions not related to limits</b>	
<b>To be notified within 24 hours of detection</b>	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

<b>(d) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## **Part B – to be submitted as soon as practicable**

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“average over the sampling period” means the average value of three consecutive measurements of at least 30 minutes each, unless otherwise stated, as defined in the General Considerations section of the Food, Drink & Milk Industries BAT Conclusions.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW. An “existing medium combustion plant” is combustion plant operating before 20 December 2018.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Pests” means Birds, Vermin and Insects.

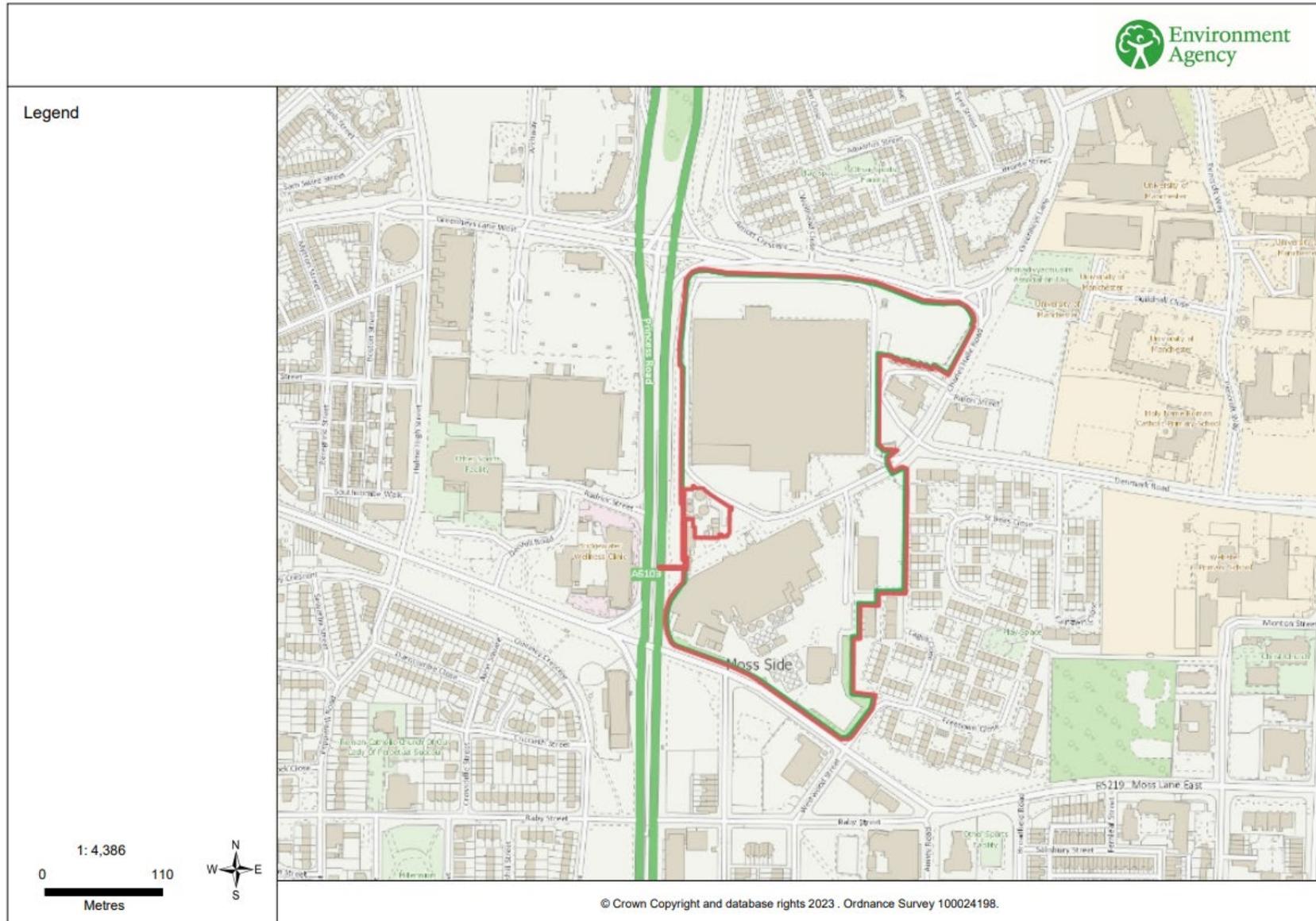
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

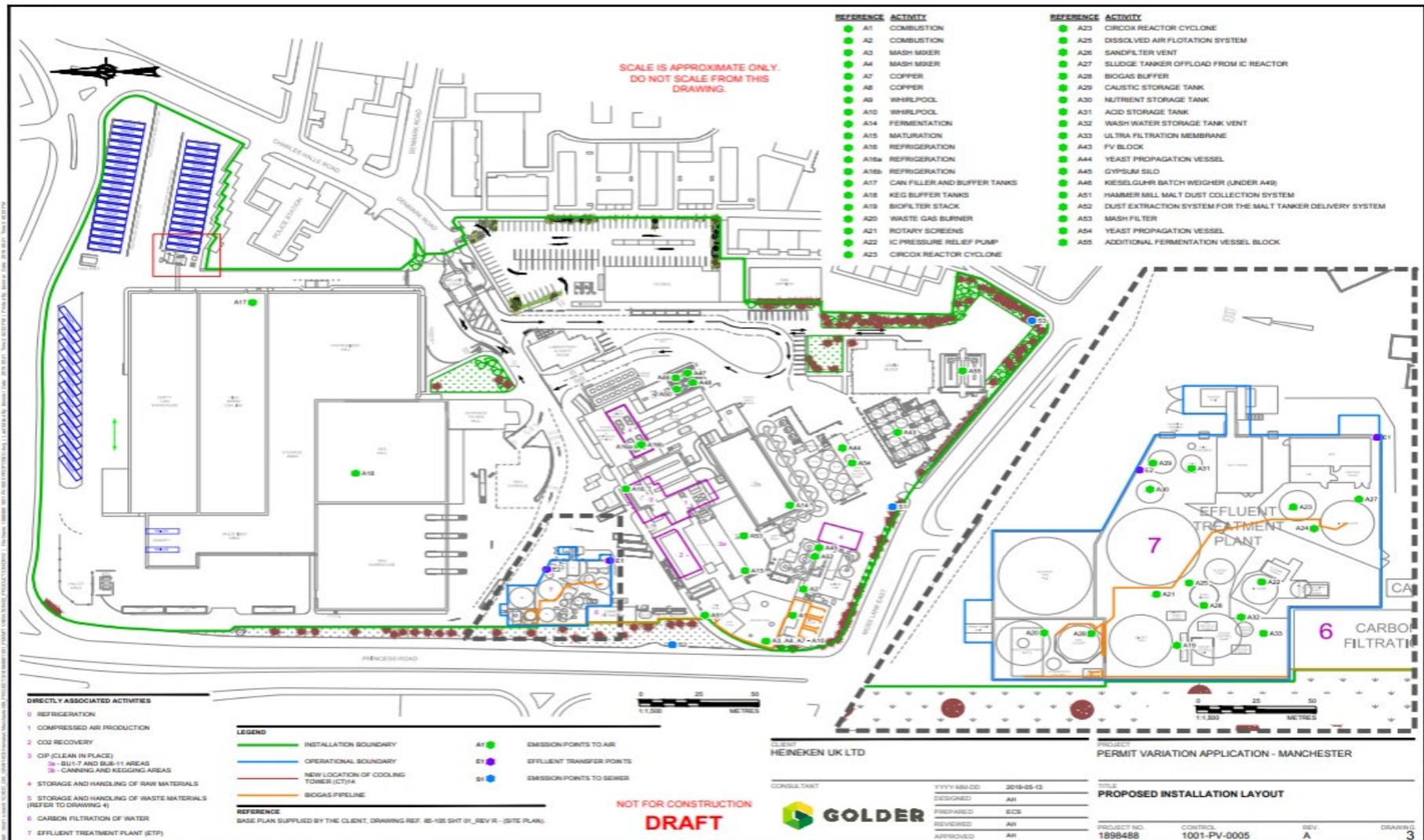
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

“year” means calendar year ending 31 December.

# Schedule 7 – Site plan





END OF PERMIT

Permit number  
EPR/BV7796IW



**Signed:**     *[Name]*

**Date:**       *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- <sup>1</sup> Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- <sup>2</sup> Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- <sup>3</sup> For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- <sup>4</sup> Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

## Emissions to Sewer Reporting Form

**Permit number:** *EPR/BV7796IW*

**Operator:** Heineken UK Limited

**Facility name:** Royal Brewery Manchester

**Emissions to Sewer Reporting Form: version 1, 08/03/2021**

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

<b>Emission point</b>	<b>Substance / parameter</b>	<b>Emission Limit Value</b>	<b>Reference period</b>	<b>Test method <sup>1</sup></b>	<b>Result <sup>2</sup></b>	<b>Sample dates and times <sup>3</sup></b>	<b>Uncertainty <sup>4</sup></b>
<i>[e.g. S1]</i>	<i>[e.g. Total suspended solids]</i>	<i>[e.g. 30 mg/l]</i>	<i>[e.g. For 95% of all measured values of periodic samples taken over one month]</i>	<i>[e.g. BS EN 872:2005]</i>	<i>[State result]</i>	<i>[State relevant dates and time periods]</i>	<i>[State uncertainty if not 95% confidence interval]</i>

**Signed:** *[Name]*

**Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

---

**Guidance for use:** Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- <sup>1</sup> Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- <sup>2</sup> Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- <sup>3</sup> For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- <sup>4</sup> Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

## Water Usage Reporting Form

Permit number: *EPR/BV7796IW*

Operator: Heineken UK Limited

Facility name: Royal Brewery Manchester

Water Usage Reporting Form: version 1, 08/03/2021

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Water source	Water usage (m <sup>3</sup> )	Specific water usage (m <sup>3</sup> /hl of product) <sup>2</sup>
Mains water	<i>[insert annual usage in m<sup>3</sup> where mains water is used]</i>	Not Applicable
Site borehole	<i>[insert annual usage in m<sup>3</sup> where water is used from a site borehole]</i>	Not Applicable
Other – <i>[specify other water source where applicable. Add extra rows where needed]</i>	<i>[insert annual usage in m<sup>3</sup> where applicable]</i>	Not Applicable
Total water usage	<i>[insert total annual water usage in m<sup>3</sup>]</i>	<i>[insert total water use per tonne of product produced m<sup>3</sup>/t]</i>

### Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report your annual water usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

## Energy Usage Reporting Form

**Permit number:** *EPR/BV7796IW*

**Operator:** Heineken UK Limited

**Facility name:** Royal Brewery Manchester

**Energy Usage Reporting Form: version 1, 08/03/2021**

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

<b>Energy source</b>	<b>Energy consumption / production (MWh)</b>	<b>Specific energy consumption (MWh/hl of product) <sup>2</sup></b>
Electricity imported as delivered - source <i>[specify source, e.g. supplied from the national grid]</i>	<i>[insert annual consumption in MWh where electricity is imported]</i>	Not Applicable
Electricity imported as primary energy <sup>1</sup> – conversion factor of <i>[specify conversion factor used to convert electricity delivered to primary energy]</i>	<i>[insert annual consumption in MWh where electricity is imported]</i>	Not Applicable
Natural gas	<i>[insert annual consumption in MWh where natural gas is used]</i>	Not Applicable
Gas oil – conversion factor of <i>[specify conversion factor used to convert tonnes to MWh]</i>	<i>[insert annual consumption in MWh where gas oil is used]</i>	Not Applicable
Other – <i>[specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]</i>	<i>[insert annual consumption in MWh where applicable]</i>	Not Applicable
<b>Total</b>	<i>[insert total energy use in MWh]</i>	<i>[insert total energy use per tonne of product MWh/tonne of product]</i>

<b>Operator's comments</b>

**Signed:**     *[Name]*

**Date:**       *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

<sup>1</sup> Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

<sup>2</sup> Divide energy consumption by an appropriate unit of raw material processed or product output.

## Food Waste Reporting Form

Permit number: *EPR/BV7796IW*

Operator: Heineken UK Limited

Facility name: Royal Brewery Manchester

Food Waste Reporting Form: version 1, 06/02/2023

Reporting of food waste for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

<b>Overall food waste (tonnes)</b>	
<b>Food waste as % of product</b>	
<b>Food waste disposal routes</b>	<i>As specified below</i>

<b>Source</b>	<b>Tonnage</b>
<b>Redistribution for human consumption</b>	
<b>Animal feed</b>	
<b>Bio-based materials/biochemical processing (e.g. feedstock for other industrial products)</b>	
<b>Anaerobic digestion/codigestion</b>	
<b>Composting/aerobic processes</b>	
<b>Incineration/controlled combustion</b>	
<b>Land application</b>	

<b>Landfill</b>	
<b>Sewer/wastewater treatment (e.g. as COD)</b>	
<b>Other (Please specify)</b>	

**Signed:** [Name]

**Date:** [DD/MM/YY]

(Authorised to sign as representative of the operator)

**Guidance for use:** Use this form to report your food waste metrics.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information.

**Rationale:** Avoidance of food waste is a key issue for the sector, both nationally and globally, and is subject to a United Nations Sustainable Development Goal: SDG 12.3: “By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses”.

This complements Defra’s Food and drink waste hierarchy: deal with surplus and waste - GOV.UK ([www.gov.uk](http://www.gov.uk)) and WRAP’s Target Measure Act Initiative.

Reporting of food waste should be to a set methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard).

## Other Performance Parameters Reporting Form

Permit number: *EPR/BV7796IW*

Operator: Heineken UK Limited

Facility name: Royal Brewery Manchester

Other Performance Parameters Reporting Form: version 1, 08/03/2021

Reporting of other performance parameters for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Parameter	Units
<i>[e.g. Total raw material usage]</i>	<i>[e.g. tonnes per production unit]</i>
Beer produced	hectolitres
CO <sub>2</sub> recovered	tonnes
CO <sub>2</sub> used at the facility	tonnes
COD efficiency	COD te/te product
Oxides of nitrogen	kg (as NO <sub>2</sub> ) in a year
Waste sent for recovery (specify route)	tonnes
Waste sent for recycling (specify route)	tonnes
Total product waste sent for disposal (specify route)	tonnes

**Operator's comments**

**Signed:** *[Name]*

**Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.