

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Molson Coors Brewing Company (UK) Limited

Tower Brewery Tadcaster
Tower Brewery
Station Road
Tadcaster
LS24 9JR

Variation application number

EPR/BN1429IC/V008

Permit number

EPR/BN1429IC

Tower Brewery Tadcaster

Permit number EPR/BN1429IC

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 4th 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 in North Yorkshire in the northwest of the town of Tadcaster, at National Grid Reference SE 47985 43560. It is a multi-operator installation which has two operators – Molson Coors Brewing Company (UK) Limited and NSI Industrial O&M Solutions Ltd. The listed activity conducted by Molson Coors Brewing Company (UK) Limited are the brewing and packaging of lagers and ales. NSI Industrial O&M Solutions Ltd operate an Effluent Treatment Plant (ETP). The installation operates 24 hours per day Monday to Friday with cleaning activities taking place on weekends.

Tower Brewery Tadcaster

This permit is for Molson Coors Brewing Company (UK) Limited, the facility manufactures operations brews and packages lagers and ales.

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 installation has a production capacity of approximately 2 million hectolitres per annum, operating 24 hours per day Monday to Friday with cleaning activities taking place on weekends. This equates to a production capacity of 800 tonnes per day.

The site consists of a main brewhouse, with associated process activities fermentation, conditioning, filtration, leading to finished product that is filled into kegs or bulk tankers.

Yeast and spent grains are generated as by-products of the brewing activity, both of which are removed from site for either further food processing or animal feed by third parties. Other waste streams generated are captured around the site and consolidated within the waste storage area to allow for the most efficient recovery, recycling, or disposal off site through approved waste service providers.

Most cleaning activities on site are carried out via automated cleaning in place (CIP) systems utilising caustic or acid-based cleaning products. Additional manual cleaning is completed as required. The site also has an ammonia refrigeration plant and IMS mixing area which provides secondary cooling to process areas.

CO₂ and Nitrogen are used on site as process gasses. CO₂ is a by-product of the fermentation process, the site has a CO₂ recovery plant for collection, storage, and reuse of CO₂ at the facility. It is used to carbonate beer and for packing.

The site has channelled emissions to air of particulate matter from the handling of malt and adjuncts and combustion gases from two steam raising boilers: Boiler 1 has a thermal input capacity of 10.5 MWth and is fuelled on natural gas; Boiler 2 has a thermal input capacity of 8.4 MWth it is dual fuelled mainly on natural gas but can also be fuelled using biogas. The biogas is produced via anaerobic digestion at the ETP operated under the separate permit (EPR/ NP3135TM).

Most of the water used on site is abstracted from two boreholes located on site. A supply of town mains water is also available. Abstracted water is treated via reverse osmosis (RO) and chlorine dioxide dosing to ensure the water is of the correct consistency and quality required for brewing.

Discharges to surface water are from uncontaminated rainwater and reject water from the sites RO water treatment system. All process effluent generated is sent to the onsite ETP operated under the separate permit (EPR/ NP3135TM) prior to discharge to River Wharfe.

Within 10km from the installation's permitted perimeter there are no European designated sites. The Tadcaster Mere Site of Special Scientific Interest (SSSI), four Local Wildlife Sites (LWSs) and four Ancient Woodlands (AWs) are within 2km of the installation.

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

Status log of the permit		
Description	Date	Comments
Application BN1429IC	Duly made 28/02/2005	
Permit determined	07/11/2005	Original permit issued to Coors Brewers Limited.
Variation determined (HP3930LD) EPR/BN1429IC/V002	11/11/2005	Permit varied to remove suspended solid limit, improvement condition for monitoring and new level to be established.
Variation determined (EP3139LR) EPR/BN1429IC/V003	30/01/2006	Permit varied to change improvement condition deadlines and removal of reporting requirements for pesticides and TOC.
Variation application (FP3731LV)	Duly made 06/07/2006	Variation to allow fuel switching.
Variation determined EPR/BN1429IC/V004	24/11/2006	Varied permit issued to Coors Brewers Limited.
Variation application (ZP3338MR)	Duly made 15/06/2007	Variation to implement the following changes: removal of effluent treatment plant (ETP) and the installation of a new ETP which will be operated by third party, meaning this will now be a multi-operator installation.
Variation determined EPR/BN1429IC/V005	17/07/2007	Varied permit issued to Coors Brewers Limited.

Status log of the permit		
Description	Date	Comments
Environment Agency variation determined EPR/BN1429IC/V006	28/05/2013	Environment Agency variation to implement the changes introduced by the IED.
Application EPR/BN1429IC/V008 (variation and consolidation)	Regulation 61 Notice response received 05/10/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Variation application EPR/BN1429IC/V007	15/05/2023	Variation to include a carbon dioxide recovery plant.
Variation determined EPR/BN1429IC/V007	11/09/2023	Non-consolidated variation notice issued.
Additional information received relating to EPR/BN1429IC/V008	02/11/2023	Information relating to BAT1, RHS, SCR and climate change adaptation
	04/01/2024	Updated emissions point plan
	22/02/2024	Confirmation of production capacity
	07/03/2024	Confirmation of the location of pipeline leading to emission point W1
Variation determined and consolidation issued EPR/BN1429IC (Billing ref. JP3941QX).	17/04/2024	Varied and consolidated permit issued in modern format

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
NSI Industrial O&M Solutions Ltd	NP3135TM	12/05/2010

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/BN1429IC

Issued to

Molson Coors Brewing Company (UK) Limited (“the operator”)

whose registered office is

**137 High Street
Burton Upon Trent
Staffordshire
DE14 1JZ**

company registration number 00026018

to operate part of a regulated facility at

**Tower Brewery Tadcaster
Tower Brewery
Station Road
Tadcaster
LS24 9JR**

to the extent set out in the schedules.

The notice shall take effect from 17/04/2024

Name	Date
Stacey Tapsell	17/04/2024

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/BN1429IC

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BN1429IC/V008 authorising,

Molson Coors Brewing Company (UK) Limited (“the operator”),

whose registered office is

**137 High Street
Burton Upon Trent
Staffordshire
DE14 1JZ**

company registration number 00026018

to operate part of an installation at

**Tower Brewery Tadcaster
Tower Brewery
Station Road
Tadcaster
LS24 9JR**

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

Name	Date
Stacey Tapsell	17/04/2024

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, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 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.
- 3.1.4 For the following activities referenced in schedule 1, table S1.1 (AR2) 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.

3.3 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.

3.5 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, S3.2 and S3.3.
- 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, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
 - (b) implement the pests management plan, from the date of approval, 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. Production capacity is limited to 800 tonnes per day.
Directly Associated Activity			
AR2	Steam supply	<u>Medium Combustion plants:</u> 10.5 MWth steam raising boiler fuelled on natural gas. 8.4 MWth steam raising dual fuelled boiler fuelled on natural gas and biogas.	From receipt of fuel to release of products of combustion to air.
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	Storage and use of chemicals and oils	Storage and use of chemicals and oils at the installation.	From receipt of chemicals and oils to disposal of wastes arising.
AR5	Water treatment	Reverse osmosis and ion exchange treatment of water for use in production and cleaning.	From receipt of water to forwarding use in production and cleaning.
AR6	Waste storage and handling	Storage and handling of waste materials.	From generation of waste to storage pending removal for disposal or recovery.
AR7	Surface water drainage	Collection of uncontaminated site surface waters.	Handling and storage of site drainage until discharge to Yorkshire Water sewer.
AR8	CO ₂ Recovery	Collection of CO ₂ from the fermentation process, removal of impurities and compression for storage as liquid prior to reuse.	From generation of CO ₂ to reuse in the brewing and packaging process.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Regulation 61 (1) Notice – Responses to questions dated 07/06/2022	All parts	Received 05/10/2022
Variation application EPR/BN1429IC/V007	Document reference EHS/TAS/CO2V/23, published 04/04/23, CO ₂ recovery plant	15/05/2023

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC24	<p>The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology applied for achieving BAT 6 • Demonstrating that BAT has been achieved. <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 6 (Energy Efficiency). Refer to BAT Conclusions for a full description of the BAT requirement.</p>	17/07/2024
IC25	<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 A5, 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>	17/04/2025
IC26	<p>The operator shall submit to the Environment Agency for approval a risk assessment considering the possibility of soil and groundwater contamination at the installation where the activity involves the use, production or release of a hazardous substances (as defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures).</p> <p>A stage 1-3 assessment should be completed (as detailed within the EC Commission Guidance 2014/C 136/-3) as follows; Stage 1 – Identify hazardous substance(s) used / stored on site. Stage 2 – Identify if the hazardous substance(s) are capable of causing pollution. If they are capable of causing pollution, they are then termed Relevant Hazardous Substances (RHS). Stage 3 – Identify if pollution prevention measures & drains are fit for purpose in areas where hazardous substances are used / stored.</p> <p>If the outcomes of Stage 3 identifies that pollution of soil / ground water to be possible. The operator shall produce and submit a monitoring plan to the Environment Agency for approval detailing how the substance(s) will be monitored to demonstrate no pollution. The operator shall commence monitoring of the RHS within a timescale as agreed by the Environment Agency.</p>	17/04/2025

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC27	<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"> • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p>	17/04/2025
IC28	<p>The operator shall submit a written report to the Environment Agency for technical assessment and written approval.</p> <p>The report must contain:</p> <ul style="list-style-type: none"> • A feasibility study to investigate the discharge of Reverse Osmosis (RO) concentrate direct to foul sewer or to the third-party Effluent Treatment Plant associated with permit EPR/NP3135TM, which process effluent is currently discharged to via emission point S1. • Results from a minimum of 10 monitoring samples taken at appropriate intervals in relation to the RO concentrate effluent. • Characterisation of the effluent monitoring for the relevant parameters including but not limited to COD/TOC. • The operator shall utilise the monitoring data to undertake a comprehensive assessment of the impact of RO concentrate on surface and ground water. The assessments shall be undertaken in accordance with Environment Agency guidance Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk); Groundwater risk assessment for your environmental permit - GOV.UK (www.gov.uk); and H1 annex D2: assessment of sanitary and other pollutants in surface water discharges - GOV.UK (www.gov.uk). <p>Where the outcome of any assessment demonstrates an impact which is liable to cause pollution of surface or groundwater, contrary to the provisions of the Water Framework Directive and Groundwater Regulations, the operator shall provide details of an improvement programme to further mitigate against the risks with time scales for implementation, for approval in writing by the Environment Agency.</p>	17/10/2024

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location on Emission Point Plan in Schedule 7	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Boiler 1 10.5MWth Fuelled on natural gas	Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	200 mg/m ³ [NOTE 1]	Periodic	Every three years [NOTE 1]	MCERTS BS EN14792
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A2	Boiler 2 8.4MWth Fuelled on natural gas	Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	200 mg/m ³ [NOTE 1]	Periodic	[NOTE 1]	MCERTS BS EN14792
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
	Boiler 2 8.4MWth Fuelled on biogas	Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	250 mg/m ³ [NOTE 1]	Periodic	[NOTE 1]	MCERTS BS EN14792
		Sulphur dioxide (SO ₂)	170 mg/m ³ [NOTE 1]	Periodic	Every three years	MCERTS BS EN14791
		Carbon monoxide	250 mg/m ³ [NOTE 1]	Periodic	[NOTE 1]	MCERTS BS EN15058
	A3 & A4	Vent release points	No parameters set	No limit set	--	--
A5	Malt handling equipment and malt bins	Particulate matter	10 mg/m ³	Average over the sampling period	Annually	MCERTS BS EN 13284-1
A6	Fermentation process vents	No parameters set	No limit set	--	--	--
A7 – A9	Process vents	No parameters set	No limit set	--	--	--

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location on Emission Point Plan in Schedule 7	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A10 – A11	Pressure release valves (PRV)	No parameters set	No limit set	--	--	--
A12	Manual vent line	No parameters set	No limit set	--	--	--
A15	Vent from fermentation vessels to collect out of specification CO ₂ at the start of the collection process	No parameters set	No limit set	--	--	--
A16	Vent of CO ₂ from the gas washer process	No parameters set	No limit set	--	--	--
A17	Nitrogen PRV (emergency only)	No parameters set	No limit set	--	--	--
A18	CO ₂ PRV (emergency only)	No parameters set	No limit set	--	--	--
A19	NH ₃ PRV (emergency only)	No parameters set	No limit set	--	--	--
NOTE 1 – Emission limit and/or monitoring requirements apply from 1 January 2025, unless otherwise advised by the Environment Agency						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on emission point plan in schedule 7 emission to River Wharfe	Uncontaminated surface water runoff and concentrate from reverse osmosis plant	TOC	As determined by the outcome of IC28	--	Continuous	MCERTS
S2 on emission point plan in schedule 7 emission to River Wharfe via Yorkshire Water surface water sewer	Uncontaminated surface water runoff	No parameters Set	No limit set	--	--	--
S3 on emission point plan in schedule 7 emission to River Wharfe via Yorkshire Water surface water sewer	Uncontaminated surface water runoff	No parameters Set	No limit set	--	--	--

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on emission point plan in schedule 7 emission to onsite ETP operated by 3 rd party	Process effluent	No parameters Set	No limit set	--	--	--

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Point source emissions to air Parameters as required by condition 3.5.1	A5	Every 12 months	1 January
	A1, A2	First monitoring undertaken in accordance with Condition 3.1.4 to be reported within 3 months, and then every 3 years thereafter.	From first monitoring requirements in accordance with Condition 3.1.4
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	W1	Quarterly	1 January, 1 April, 1 July & 1 October

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

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	m ³
Energy usage	Annually	MWh
Waste – recovery/disposal routes	Annually	tonnes
COD loss efficiency	Annually*	COD te/te product
Food waste	Annually	tonnes

*COD loss efficiency to be calculated on a weekly frequency, reported annually

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
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 water (other than sewer)	Emissions to Water 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	

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

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

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
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.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
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.

“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.

“Food waste” reporting: Reporting of food waste to use a methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard) , WRAP’s Target Measure Act initiative or similar.

“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.

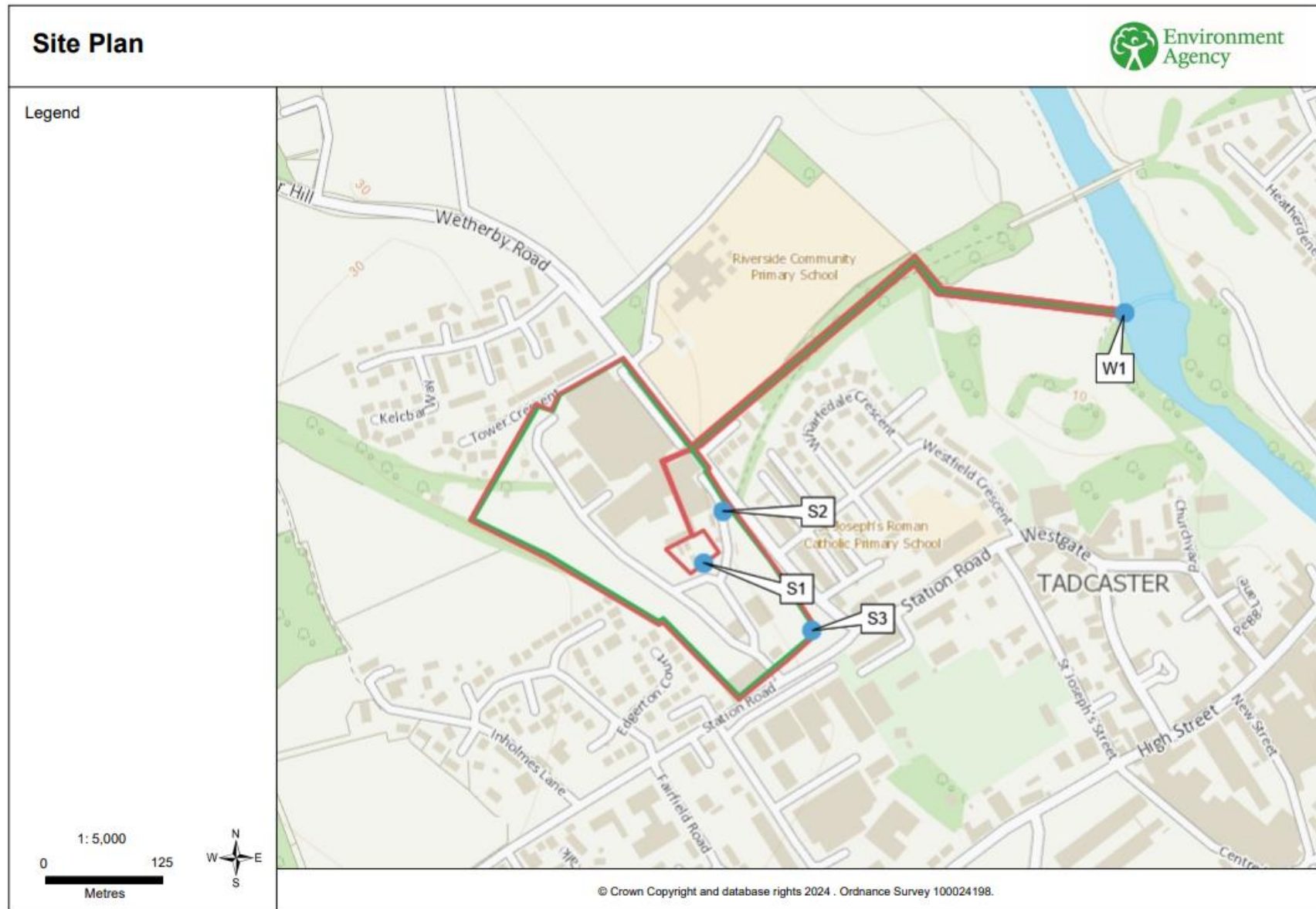
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- 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 gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or

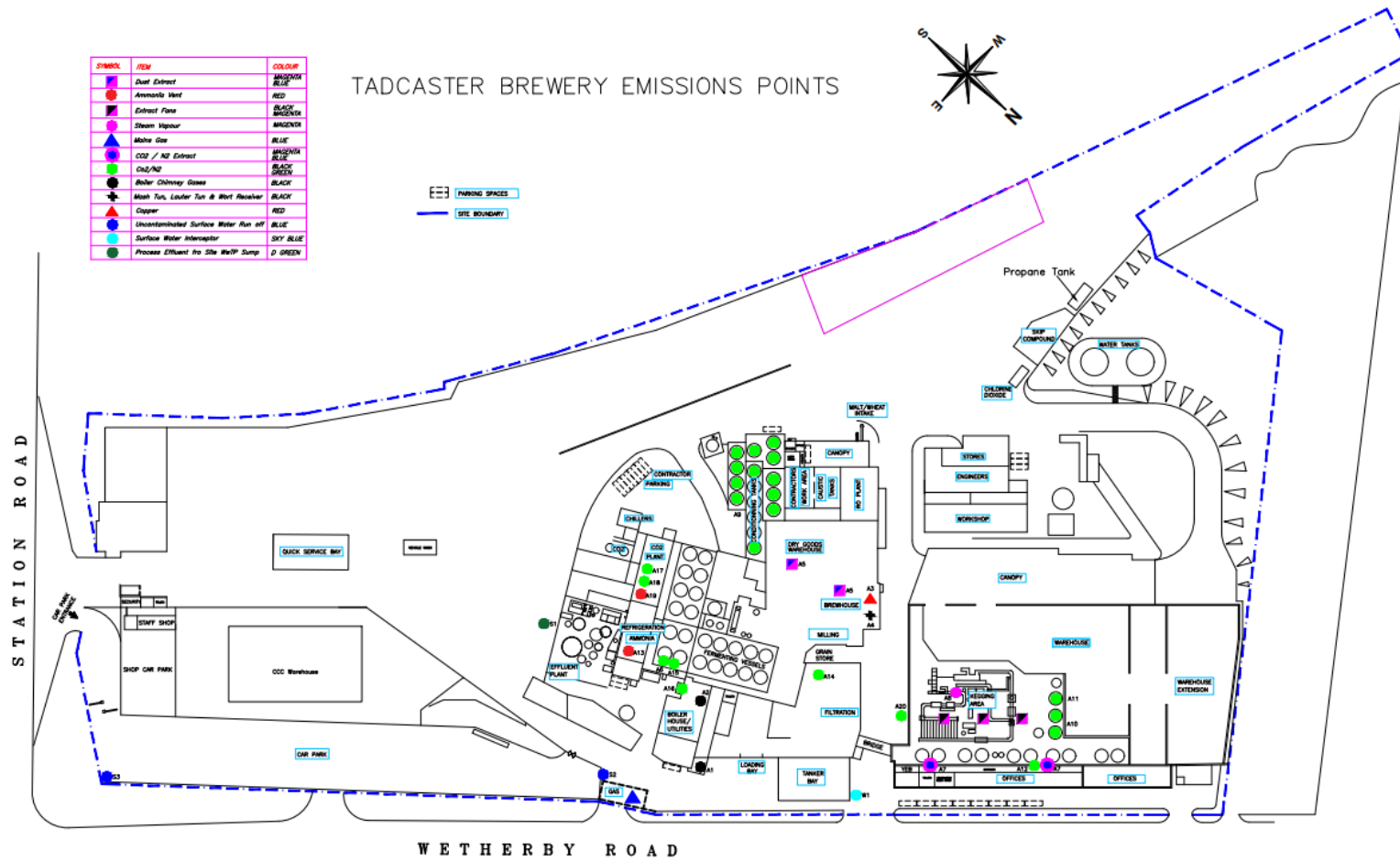
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



Emission Point Plan



D	PROCESSED EFFLUENT ADDED	SJM	16.12.2
C	MODIFIED TO SCHEDULE 3 (TABLE S3.1)	SJM	12.12.2
B	MODIFIED FOLLOWING CO2 PROJECT	SJM	8.11.2
A	FIRST ISSUE	MB	4.8.22

Rev. Description Drawn Date

Molson Coors Beverage Company (UK) Ltd
ENGINEERING PROJECTS.

Tower Brewery
Station Road
Tadcaster LS24 9JR
United Kingdom.



END OF PERMIT

Reporting Forms

Emissions to Air Reporting Form

Permit number: *EPR/BN1429IC*

Operator: *Molson Coors Brewing Company (UK) Limited*

Facility name: *Tower Brewery Tadcaster*

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

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

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
<i>[e.g. A1]</i>	<i>[e.g. Oxides of nitrogen (NO and NO₂ expressed as NO₂)]</i>	<i>[e.g. 200 mg/m³]</i>	<i>[e.g. daily average]</i>	<i>[e.g. BS EN 14181]</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.

- ¹ 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.
- ² 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.
- ³ 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.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Water Reporting Form

Permit number: *EPR/BN1429IC*

Operator: *Molson Coors Brewing Company (UK) Limited*

Facility name: *Tower Brewery Tadcaster*

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

Reporting of emissions to water (other than to sewer) for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method¹	Result²	Sample dates and times³	Uncertainty⁴
<i>[e.g. W1]</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.

1. 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.
2. 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.
3. 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.
4. 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/BN1429IC*

Operator: *Molson Coors Brewing Company (UK) Limited*

Facility name: *Tower Brewery Tadcaster*

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

Reporting of water usage for the year [YYYY]

Water source	Water usage (m ³)	Specific water usage (m ³ /tonne of product) ²
Mains water	<i>[insert annual usage in m³ where mains water is used]</i>	Not Applicable
Site borehole	<i>[insert annual usage in m³ where water is used from a site borehole]</i>	Not Applicable
River abstraction	<i>[insert annual usage in m³ where abstracted river water is used]</i>	Not Applicable
Other – <i>[specify other water source where applicable. Add extra rows where needed]</i>	<i>[insert annual usage in m³ where applicable]</i>	Not Applicable
Total water usage	<i>[insert total annual water usage in m³]</i>	<i>[insert total water use per tonne of product produced m³/t]</i>

Operator's comments

Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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/BN1429IC*

Operator: *Molson Coors Brewing Company (UK) Limited*

Facility name: *Tower Brewery Tadcaster*

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

Reporting of energy usage for the year *[YYYY]*

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/tonne of product) ²
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	<i>[insert annual consumption in MWh where electricity is imported]</i>	Not Applicable
Electricity imported as primary energy ¹ – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	<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
Biogas	<i>[insert annual consumption in MWh where gas oil is used]</i>	Not Applicable
Imported heat	<i>[insert annual consumption in MWh where heat is imported]</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
Total	<i>[insert total energy use in MWh]</i>	<i>[insert total energy use per tonne of product MWh/tonne of product]</i>

Food Waste Reporting Form

Permit number: *EPR/BN1429IC*

Operator: *Molson Coors Brewing Company (UK) Limited*

Facility name: *Tower Brewery Tadcaster*

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

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

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

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

Land application	
Landfill	
Sewer/wastewater treatment (e.g. as COD)	
Other (Please specify)	

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) 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).

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

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.