

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

AB InBev UK Limited

Samlesbury Brewery Cuerdale Lane Samlesbury Preston PR5 0XD

#### Variation application number

EPR/BO3559IY/V004

Permit number

EPR/BO3559IY

# Samlesbury Brewery Permit number EPR/BO3559IY

## 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. Only the variations specified in schedule 1 are subject to a right of appeal.

This variation authorises

- the increase of the brewery annual capacity by 2Mhl, from 4.46Mhl to 6.43Mhl,
- the addition of a schedule activity for water treatment under S5.4 A (1)(a)(i),
- The use of biogas obtained from anaerobic waste water treatment in inhouse boilers.

The increase in capacity is achieved by the following changes:

- Upgrade the current brew streams to 2 fully separate brew streams, one capable of 9 brews per day and the other 14 brews per day,
- Recommission the full malt intake system,
- Installing an additional transfer line, including weigher, sieve, destoner of capacity 14 t/h doubling the grain handling capacity,
- Modifying the existing milling system to provide 2 mill streams each of a capacity of 14 t/h feeding to the existing 2 grist cases,
- Upgrading the brewhouse with the following:
  - o 1 mash conversion vessel/cereal cooker dual purpose vessel,
  - o 1 mash filter type Meura 2001 sized to match existing batch lengths,
  - o 1 additional pre run tank (underback) to work with the mash filter,
  - o 2 wort preheaters with associated energy storage tanks,
  - o 1 mash filter CIP system,
  - o Automated salts addition,
- Replacing the existing separators (centrifuges) between fermentation and maturation with uprated units of 600hl/h,
- Increasing the filtration streams by increasing the run period between necessary regenerations. The new equipment to achieve this consists of:
  - o 2 new continuous regenerable stabilisation systems,
  - o 2 uprated blender carbonators,
  - o Replacement chillers and trap filters,
- The main equipment bright beer will receive:
  - 2 new bright beer transfer mains,
  - 4 new bright beer tanks of capacity Ca 3500hl each capable of supplying all existing bottling and canning lines plus new can line,
  - $\circ$   $\;$  New recovery CIP set sized for new mains and BBT cleaning,
- The packaging equipment will updated with a new canning line, and a Krones Variopack system,
- Addition of a wet cooling tower in the centralised refrigeration system,
- Replacement of the existing compressor and evaporative condenser (existing will be retain as a backup).

The onsite boilers are currently operating on natural gas but once the ETP will be operational and produce biogas, the boilers will operate on natural gas and biogas in an alternating schedule. The aspiration is to ultimately only operate on biogas.

Samlesbury Brewery is located on a 55 acre green-field site in Samlesbury and manufactures approximately 650,000 tonnes of beer per annum on two brewing production lines which operate continuously.

The company has an environmental management system in place although this is not externally certified.

The only protected habitat sites that are within screening distance of Samlesbury Brewery are three Sites of Special Scientific Interest (SSSIs), which are within 2 kilometres of the installation. These include Beeston Brook Pasture, Red Scar and Tun Brook and Darwen River Section.

The schedules specify the changes made to the permit.

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 received BO3559IY	Duly made 08/03/06	Application for a new bespoke brewery.		
Additional information received	22/05/06			
Additional information received	14/07/06			
Additional information received	25/10/06			
Additional information received	01/11/06			
Additional information received	09/01/07			
Permit issued	29/01/07	Permit issued to InBev UK Ltd.		
Application received EPR/BO3559IY/V002 (variation and consolidation)	Duly made 07/06/19	Application to install a new refrigeration system and the associated infrastructure.		
Responses to the Schedule 5 Notice, dated 24/07/19	01/08/19	Responses to questions 2 and 3 providing details of the new pipework and records.		
	28/08/19	Response to question 1 providing details of proposed secondary containment.		
Variation determined EPR/BO3559IY	18/11/19	Varied and consolidated permit issued to AB InBev UK Limited.		
Application received EPR/BO3559IY/V003 (variation and consolidation)	Duly made 14/09/20	Application to upgrade the site's combustion plant.		
Additional information received	09/10/20	Details providing consideration of energy efficiency and alternative technologies.		
Variation determined EPR/BO3559IY Billing reference: HP3406BT	23/11/20	Varied and consolidated permit issued to AB InBev UK Limited.		
Application EPR/BO3559IY/V004 (variation and consolidation)	Duly made 09/05/22	Application for increasing production capacity and an effluent treatment plant.		
Responses to the Schedule 5 Notice, dated 16/09/22	04/10/22	Additional details regarding the use of biogas, CIP, ETP, secondary containment and mitigation measures.		

Status log of the permit			
Description	Date	Comments	
Variation determined and consolidation issued EPR/BO3559IY	07/02/23	Varied and consolidated permit issued in modern format	
(Billing ref: KP3100MU)			

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/BO3559IY

Issued to

AB InBev UK Limited ("the operator")

whose registered office is

Bureau 90 Fetter Lane London EC4A 1EN

company registration number 03982132

to operate a regulated facility at

Samlesbury Brewery Cuerdale Lane Samlesbury Preston PR5 0XD

to the extent set out in the schedules.

The notice shall take effect from 07/02/23

Name	Date
Philip Lamb	07/02/23

Authorised on behalf of the Environment Agency

#### Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

## Permit

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

#### Permit number

#### EPR/BO3559IY

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BO3559IY/V004 authorising,

AB InBev UK Limited ("the operator"),

whose registered office is

Bureau 90 Fetter Lane London EC4A 1EN

company registration number 03982132

to operate an installation at

Samlesbury Brewery Cuerdale Lane Samlesbury Preston PR5 0XD

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

Name	Date
Philip Lamb	07/02/23

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.

## 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").
- 2.1.2 For the following activities referenced in schedule 1, table S1.1 AR2, the activities shall be undertaken in accordance with best available techniques.
- 2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer's recommendations.

#### 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.

#### 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 For the activity referenced in schedule 1, table S1.1 AR4:
  - (a) each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.
  - (b) the operator must keep periods of start-up and shut-down of each MCP as short as possible.
  - (c) there must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

#### 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.

#### 2.5 Pre-operational conditions

2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

## 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 Total annual emissions from the emission points set out in schedule 3 tables S3.1, S3.2 and S3.3 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 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.

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

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour but including ammonia) 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, S3.2 and S3.3;
  - (b) process monitoring specified in table S3.5;
- 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.
- 4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation of each MCP.

#### 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 The operator shall notify the Environment Agency as soon as is practicable, in writing of any change of medium combustion plant.
- 4.3.8 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 "immediately", 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	S6.8 A(1)(d)(ii) Treatment and processing of only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day.	Brewing of beer on two production lines. Stages include milling, brewing, fermentation, maturation and filtration/processing. Pasteurisation and packaging of beer by canning, bottling or kegging line.	Receipt of raw materials to dispatch of finished product direct from the processing stage by tanker, or transfer to warehouse from packing plant. Including all waste storage and handling.	
AR2	S5.4 A(1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico- chemical and biological treatment.	Anaerobic treatment of process effluent including pysico-chemical stages.	From mechanical screening of the process effluent to discharge to sewer.	
	Directly Associated Activity	y		
AR3	Borehole water treatment plant.	Treatment of borehole water.	Treatment of borehole water, and storage of raw materials and waste.	
AR4	Steam and hot water supply	Two medium combustion plant each comprising 2 x 10 MWth input natural gas and biogas fired boilers emitting through a common windshield (four boilers total). Two medium combustion plant comprising 2 x 2.63 MWth input natural gas and biogas fired steam generators.	From receipt of natural gas and biogas to emissions of combustion gases and supply of steam and hot water for on-site consumption only.	
AR5	Flare operation	Flaring of biogas	Flaring of biogas in emergency cases and boiler start-up/shutdown only.	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application	The response to section 2.1, excluding sections 2.1.13 to 2.1.31 in the Application.	08/03/06	
Additional information	Description of the Environmental Management System.	09/01/07	
Application EPR/BO3559IY/V002	<ul> <li>Information provided in sections 1, 2, 3, 4, 5, 6, 7 and 8 of the document titled: <i>IPPC Application Information – Samlesbury Refrigeration;</i> and</li> </ul>	23/01/19	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
	• schematic diagram of Chiller Relocation, drawing number 78190009_S_001.		
Responses to Schedule 5 Notice, dated 24/07/19	<ul> <li>Responses to questions 1 and 2 of the Notice providing:</li> <li>details of the refrigeration pipework; and</li> <li>information on the records kept for the refrigeration plant.</li> </ul>	01/08/19	
	<ul> <li>Response to question 3 of the Notice providing:</li> <li>details of the potassium carbonate buffer tank secondary containment system.</li> </ul>	28/08/19	
Application EPR/BO3559IY/V003	<ul> <li>Emissions point plan titled: "Proposed boiler &amp; steam generator emission points," drawing number: 4133_D1015 and dated: 05/11/19.</li> </ul>	09/12/19	
Application	Sections 11 of Appendix 1a provided in response to section 2b – proposed changes, Part B2 of the application form.	Duly Made 09/05/22	
Additional information	Best Available Techniques Assessment, Ref: 416.HF208.00004	09/05/22	
Response to Schedule 5 Notice dated 16/09/22	Response to question 1, 2, 3 detailing the use of biogas, question 10 detailing cleaning in place.	04/10/22	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC 1	A written procedure shall be submitted to the Environment Agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on the submission of the procedure. The procedure shall be implemented by the operator from the date of approval in writing by the Agency.	Completed	
IC 2	The operator shall undertake a review to identify options for reducing the emissions to air of oxides of nitrogen to at least the benchmark standards in the Environment Agency Technical Guidance Note for Combustion and to ensure that the releases to air do not result in a significant contribution to an exceedance of an Air Quality Objective or a European Union Limit Value.	Completed	
	The review shall include, but not be limited to, the primary and secondary measures for the reduction of the relevant pollutants listed in the Environment Agency Technical Guidance Note for Combustion, identification of the most appropriate stack height and direction for dispersion of the waste gases and either pre-treatment of fuel or abatement of releases to air post combustion as appropriate. Where measures can be undertaken to limit the impact on air quality in the short term whilst long term solutions are implemented then the report should include proposals for both short and long term measures as appropriate. The operator shall submit a written report detailing the elements of the review and its conclusions and shall include a programme for implementation. The programme shall be implemented by the operator from the date of approval in writing by the Environment Agency.		

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC 3	The operator shall submit a written report to the Environment Agency to investigate the condition of the process effluent drainage system and propose any necessary improvements, including, but not limited to, eliminating the potential for cross contamination between surface and process effluent drains and any fugitive releases to the ground.	31/03/21	
IC 4	The operator shall carry out an options appraisal for the disposal of surface water drainage from the packaging and warehouse areas, which shall include consideration of discharge to controlled waters via release point W4 and discharge to foul sewer. A written report shall be submitted to the Environment Agency detailing the conclusions of the appraisal.	31/03/21	
IC 5	The operator shall investigate the feasibility of recommencing the use of the heat exchanger system on the wort kettle. A written report shall be submitted to the Environment Agency summarising the findings of the investigation.	Completed	
IC 6	The operator shall investigate the feasibility of reusing water from the tunnel pasteuriser systems, having regard to Section 2.4.3 of Environment Agency Technical Guidance Note S6.10. A written report shall be submitted to the Environment Agency summarising the findings of the investigation.	Completed	
IC 7	The operator shall undertake a hot water mass balance for the installation having regard to Sections 2.7, 2.4.3 and Annex F of Technical Guidance Note S6.10. A written report shall be submitted to the Environment Agency summarising the results of the investigation.	Completed	
IC 8	The operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Environment Agency Sector Guidance Note IPPC S4.02. Upon completion a summary of the plan shall be submitted to the Agency in writing.	Completed	
IC 9	The operator shall propose, with appropriate timescales for implementation, secondary containment for the potassium carbonate buffer tank, which is located within the refrigeration plant room. The proposed secondary containment shall meet the standards set out in CIRIA C736 – Containment Systems for the Prevention of Pollution – secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard or other subsequent guidance as may be agreed in writing with the Environment Agency. The written proposals shall be submitted to the Environment Agency for approval, and implemented to the agreed timescales.	Completed	
IC 10	The operator shall install continuous monitoring equipment for the measurement of Total Organic Compound (TOC) in effluent discharged from release point W4, having regard to Section 2.10 of Environment Agency Technical Guidance Note S6.10 and Cross Sector Guidance Notice M17. A proposal for the installation of the equipment shall be submitted to the Environment Agency for approval, in writing.	Completed	
IC 11	The Operator shall submit a written report to the Environment Agency on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions and confirm that the Environmental Management System (EMS) has been updated accordingly.	06/05/23	
IC 12	The Operator shall review the measures and procedures in place to prevent and reduce fugitive emissions to air and water from the vessels,	06/05/23	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
	containers, pipework and plant equipment used at the installation and develop a Leak Detection and Repair (LDAR) programme.		
	The Operator shall supply the Environment Agency with a written copy of the Leak Detection and Repair (LDAR) programme and shall implement any improvements to a timetable agreed with the Environment Agency.		

Table S1.4 Pre-operational measures		
Reference	Pre-operational measures	
PO1	At least 6 weeks before operation, the operator shall submit a risk assessment using the H1 Risk assessment tool regarding the operation of the onsite boilers using solely biogas as fuel.	
PO2	The operator shall submit a report demonstrating that all bulk liquid storage tanks, pipelines and secondary containment associated with Effluent treatment plant have been leak-tested at least 4 weeks before the start of operations.	

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels		
Raw materials and fuel description	Specification	
_	-	

# 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
B1 Point B1 – 4 on DRG No	Boiler 1 (10 MWth)	Oxides of Nitrogen (expressed as	$100 \text{ mg/m}^3$ Note 2 200 mg/m <sup>3</sup>	Periodic	Annually	MCERTS BS EN 14792
4133_D1015,		NO <sub>2</sub> )	Note 3			
dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	_	_	MCERTS BS EN 15058
B2 Point B1 – 4 on	Boiler 2 (10 MWth)	Oxides of Nitrogen	100 mg/m <sup>3</sup> Note 2	Periodic	Annually	MCERTS BS EN 14792
DRG No. 4133_D1015,		(expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> Note 3			
dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	_	_	MCERTS BS EN 15058
B3 Point B1 – 4 on	Boiler 3 (10 MWth)	Oxides of Nitrogen	100 mg/m <sup>3</sup> Note 2	Periodic	Annually	MCERTS BS EN 14792
DRG No. 4133_D1015,		(expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> Note 3			
dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	_	_	MCERTS BS EN 15058
B4 Point B1 – 4 on	Boiler 4 (10 MWth)	Oxides of Nitrogen	100 mg/m <sup>3</sup> Note 2	Periodic	Annually	MCERTS BS EN 14792
DRG No. 4133_D1015,		(expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> Note 3			
dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	-	-	MCERTS BS EN 15058
B5 Point D102 on drawing No. L101P, dated 29/07/21	ETP biofilter	Odour	No limit set	_	_	EN 13725
SG1 Point SG1 on	Steam generator 1	Oxides of Nitrogen	100 mg/m <sup>3</sup> Note 2	Periodic	Every 3 years	MCERTS BS EN 14792
DRG No.	(2.62 MWth)	(expressed as NO <sub>2</sub> )	200 mg/m <sup>3</sup> Note 3			

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
4133_D1015, dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	_	_	MCERTS BS EN 15058
SG2 Point SG2 on DRG No	Steam generator 2 (2 62	Oxides of Nitrogen	$100 \text{ mg/m}^3$ Note 2 200 mg/m <sup>3</sup>	Periodic	Every 3 years	MCERTS BS EN 14792
4133_D1015, MW	MWth)	NO <sub>2</sub> )	Note 3			
dated: 05/11/19		Sulphur dioxide	100 mg/m <sup>3</sup> Note 3 only	Periodic	Annually	MCERTS BS EN 14791
		Carbon monoxide	No limit set	_	-	MCERTS BS EN 15058
F1 Point H101 on drawing No. L101P, dated 29/07/21	Emergency flare stack	No parameter set	No limit set	_	_	_
Note 1: Monitoring requirements are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases at a standardised O <sub>2</sub> content of 6% for solid fuels, 15% for engines and gas turbines and 3% all other MCPs.						

Note 2: Running on natural gas

Note 3: Running on biogas

# Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

			1			
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on DRG No. SAM\000\EXT\08638\G emission to River Ribble via unnamed tributary and culvert	Unnamed culvert at borehole 1	No parameter set	No limit set	_	_	Permanent sampling access not required
W2 on DRG No. SAM\000\EXT\08638\G emission to River Ribble via unnamed tributary and culvert Kibele via unnamed tributary and culvert Kibele via unnamed tributary and culvert	Surface Water Outfall B collecting surface water from north	Biochemical Oxygen Demand	10 mg/l	Monthly	Spot sample	BS EN 1899- 1 <sup>1</sup>
		Suspended Solids	20 mg/l	Monthly	Spot sample	BS EN 872:1996
	west corner of the site	Maximum pH	9	Monthly	Spot sample	BS 6068- 2:50:1995 <sup>1</sup>
		Minimum pH	5	Monthly	Spot sample	BS 6068- 2:50:1995 <sup>1</sup>
W3 on DRG No. SAM\000\EXT\08638\G emission to River Ribble via unnamed tributary and culvert	Outfall C (Site) Borehole diversion and break tank overflow	No parameter set	_	_	_	Permanent sampling access not required

# 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
W4 on DRG No. SAM\000\EXT\08638\G	Outfall D Site Surface Water	Biochemical Oxygen Demand	10 mg/l	Monthly <sup>2</sup>	Spot sample	BS EN 1899- 1 <sup>1</sup>
emission to River Ribble via unnamed tributary Dutfall Weir for surface water from Packaging and Warehouse.	Outfall Weir for surface water from	Suspended Solids	20 mg/l	Monthly <sup>2</sup>	Spot sample	BS EN 872:1996 <sup>1</sup>
	Maximum pH	9	Monthly <sup>2</sup>	Spot sample	BS 6068- 2:50:1995 <sup>1</sup>	
		Minimum pH	5	Monthly <sup>2</sup>	Spot sample	BS 6068- 2:50:1995 <sup>1</sup>

Note 1: Or an alternative method agreed in writing with the Environment Agency.

Note 2: Monitoring shall only be undertaken when there is a discharge to surface water via W4.

#### Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-siteemission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitor ing frequen cy	Monitoring standard or method	
S1 on DRG No. SAM\000\EXT\08638\G emission to United Utilities Blackburn Wastewater Treatment Works	Site effluent sump	Biochemical Oxygen Demand	No limit set	24-hour flow proportional sample	Weekly	BS EN 1899-1 <sup>1</sup>	
		Suspended Solids	No limit set	24-hour flow proportional sample	Weekly	BS EN 872:1996 <sup>1</sup>	
		Ammonia	No limit set	24-hour flow proportional sample	Weekly	BS EN ISO 11732:1997 <sup>1</sup>	
Note 1: Or on alternative	mothod c	arood in writin	a with the l				

Note 1: Or an alternative method agreed in writing with the Environment Agency.

Table S3.4 Annual limits				
Substance	Medium	Limit (including unit)		
Oxides of nitrogen	Air	330 tonnes (as NO <sub>2</sub> ) in a year		

Table S3.5 Process monitoring requirements					
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane	Every 6 months or otherwise agreed in accordance with the	BS EN 15446 In accordance with the LDAR programme	Monitoring points as specified LDAR programme. Limit as agreed with the Environment Agency as	

Table S3.5 Process monitoring requirements					
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
		LDAR programme		a percentage of the overall gas production.	
Condenser	Cooling water outlet temperature	Continuous	Not applicable	-	
Emergency flare	Operating hours	Continuous	Recorded duration and frequency. Recording	Date, time and duration of use of auxiliary flare shall be recorded.	
	Quantity of gas sent to emergency flare		SCADA system or similar system	Quantity can be estimated from gas flow composition, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions.	
Pressure relief valves and vacuum systems	Gas pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.	
Biofilter from equalisation tank, calamity tank and post-aeration tanks	Efficiency assessment	Annual	Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal)	Odour abatement plant shall be regularly checked and maintained to ensure appropriate temperature and moisture content. Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations. Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the	

# 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		
Process monitoring Parameters as required by condition 3.5.	Condenser, emergency flare, Pressure relief valves and vacuum systems, biofilter and monitoring points as specified in LDAR programme	Every 6 months	1 January, 1 July		
Emissions to air Parameters as required by condition 3.5.1.	B1, B2, B3, B4 and B5	Annually	1 January		
	SG1 and SG2	Every 3 years			
Emissions to water Parameters as required by condition 3.5.1.	W2, W4	Every 3 months	1 January		
Emissions to sewer Parameters as required by condition 3.5.1.	S1	Every 3 months	1 January		

Table S4.2: Annual production/treatment			
Parameter	Units		
Total beer produced per annum	tonnes		

Table S4.3 Performance parameters				
Parameter	Frequency of assessment	Units		
Water usage	Annually	m <sup>3</sup>		
Energy usage	Annually	MWh		
Other performance parameters	Annually	tonnes per production unit		

Table S4.4 Reporting forms				
Parameter	Reporting form	Form version number and date		
Air	Form air 1 or other form as agreed in writing by the Environment Agency	23/11/20		

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
Water	Form water 1 or other form as agreed in writing by the Environment Agency	05/01/07
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	05/01/07
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	05/01/07
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	05/01/07
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	05/01/07

# 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.

"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

"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.

"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.

"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 other than gas engines or gas turbines, 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



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