



Environment  
Agency

# Notice of variation and consolidation with introductory note

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

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Pauls Malt Limited

Bury St Edmunds Maltings  
24-25 Eastern Way  
Bury St Edmunds  
Suffolk  
IP32 7A

**Variation application number**

EPR/BX2078IM/V004

**Permit number**

EPR/BX2078IM

# Bury St Edmunds Maltings

## Permit number EPR/BX2078IM

### Introductory note

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

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

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

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

We have implemented the requirements of the Medium Combustion Plant directive and incorporated post-dated requirements for 2030.

The schedules specify the changes made to the permit.

The main features of the permit are as follows.

Bury St Edmunds malting plant is located within the Eastern Way Industrial Estate in Suffolk at National Grid Reference NGR TL8595065126. The site produces 484 tonnes per day of malted barley for the domestic and international brewing market, processed in its two malting plants, the Bobby Plant, and the Seeger plant. Raw material is delivered in bulk by tipping lorries and stored in silos, cleaned in barley dressers where small kernels are recovered and sold for feed barley. Processing barley to produce malt involves steeping to initiate growth (germination), air rests (drying), kilning, storage, and dispatch of the finished product.

**Steeping:** The first step of the malting process requires the barley to be immersed in water to allow moisture intake and initiate growth, process repeated two or three times with dry periods in between to allow the barley to breathe. The Bobby Plant typically requires three water immersions, whereas the Seeger plant historically has required two water immersions. The Seeger plant does also have an Optisteeep system connected to it. When conditions permit, this allows a single water immersion program to be followed with the steep water being continually recirculated. The recirculated water is oxygenated through the dosing of hydrogen peroxide. Use of the Optisteeep technology reduces the water use and therefore a reduction in trade effluent volume is also achieved.

**Germination:** Typically up to 4 days, a process where growth is temperature and time controlled. Grain temperature using louvres to mix fresh ambient air and recirculated air drawn off the malt bed. The heat of the recirculated air is controlled by use of a fan. The Seeger plant also has an ammonia filled refrigeration plant which can be used during warmer periods of the summer to maintain a cool temperature during germination. On completion of the germination step, the 'green malt' is transferred to kilning.

**Kilning:** Malting stage in which controlled heat is added to the process. The purpose of this stage is to fix the enzymes and reduce moisture down by in-direct air-air heat exchangers connected to dual fuelled burner units which are typically gas fired to 3.5 - 5% depending on the malt specification type being produced therefore producing a product stable and safe for storage. Heat is drawn off from the heat exchanger & transferred to the kiln by fan. The kilning process on the Bury St Edmunds site takes approx. 24hrs.

On completion of kilning, the batch is transferred to the silo block for storage. Enroute to the silo block the batch is passed through a deculmer which facilitates the removal of rootlets from the kernels. Rootlets are high in protein and mixed with barley and malt dust removed by the aspiration systems before being compressed in a pellet mill to produce malt culm pellets which are then sold as a co-product.

Trade effluent is predominantly derived from spent steeping water and water used for hygiene measures in wet process areas. It is pumped over a rotating screen which facilitates the removal of grain waste. Solids are then conveyed into a waste skip located under the rotating screen. Once screened, the effluent is held in a 826m<sup>3</sup> open top tank and gravity discharged to Anglian Water sewer. In addition to solids removed as part of the effluent screening process and annual de-sludge of the effluent tanks, malt culms from the underdeck of the perforated kiln floors are removed by vacuum by and transferred for composting as currently that waste cannot be returned to the system for pelleting for animal feed.

Local Exhaust Ventilation systems are used to remove dust and light density waste during the transfer of dry products. The dust is combined with malt culms (rootlets) to produce malt culm pellets. Rotary seals are also fitted to the LEVs. Kiln burners and Combined Heat & Power engines have maintenance contracts in place which helps to ensure that they run efficiently and keeping emissions as low as possible. Stack emissions are measured as part of the maintenance schedules in place. The site operates a number of medium combustion plants (MCPs) in the form of 3 X CHP of 3.6 MWth input each, 4 X Kiln burners of 3.45 MWth each and 2 X GVK with 2 burners each of 6.1 MWth per burner; all MCPs are natural gas fired.

There is a special protection area site (SPA), Breckland, located at 9km distance from site, a site of special scientific interest (SSSI), The Glen Chalk Caves at 625 meters, and a Local Nature Reserves, Moreton Hall Community Woods at approximately 1km.

The Operator has ISO14001:2015 and ISO50001:2018 accreditations for the EMS and energy management systems.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application received BX2078IM	05/05/2005	Application received for the production of malt.
Response to request for information (dated 31/08/2005)	15/11/2005	--
Permit BX2078IM issued	18/01/2006	Permit issued to Pauls Malt Ltd.
Application CP3331XW	30/04/2008	--
Difference in fee requested 15/05/08	Duly made 14/07/2008	--
Extension to determination period	07/11/2008 28/02/2009	Extension to determination period
Variation Notice CP3331XW issued	16/02/2010	--
Agency variation determined EPR/BX2078IM/V003	20/08/2013	Agency variation to implement the changes introduced by IED
Application EPR/BX2078IM/V004 (variation and consolidation)	Regulation 61 Notice response received 07/10/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Request for further information (dated 20/06/2023)	04/07/2023	Information provided in relation to BATcs 1, 6, 8, 9, 11, 12, 20, ELP for energy, EPL for wastewater, MCPs, SCR, Stage 1 – 3 Risk Assessment, air emission points, cooling towers, updated site plan.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Additional information request (dated 22/08/2023)	22/08/2023	Updated site plan
	28/08/2023	Non-technical description, 3D site plan.
Variation determined and consolidation issued EPR/BX2078IM (Billing ref. UP3708MR).	01/11/2023	Varied and consolidated permit issued in modern format.

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/BX2078IM

### Issued to

**Pauls Malt Limited** (“the operator”)

whose registered office is

**24-25 Eastern Way**

**Bury St Edmunds**

**Suffolk**

**IP32 7AD**

company registration number 00088929

to operate a regulated facility at

**Bury St Edmunds Maltings**

**24-25 Eastern Way**

**Bury St Edmunds**

**Suffolk**

**IP32 7AD**

to the extent set out in the schedules.

The notice shall take effect from 01/11/2023.

Name	Date
Marcus Woodward	01/11/2023

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/BX2078IM**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BX2078IM/V004 authorising,

**Pauls Malt Limited** (“the operator”),

whose registered office is

**24-25 Eastern Way  
Bury St Edmunds  
Suffolk  
IP32 7AD**

company registration number 00088929

to operate an installation at

**Bury St Edmunds Maltings  
24-25 Eastern Way  
Bury St Edmunds  
Suffolk  
IP32 7AD**

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

Name	Date
Marcus Woodward	01/11/2023

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”).

### **2.2 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 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.

2.3.4 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 (AR3 – CHP1, CHP2, and CHP3) the first monitoring measurements shall be carried out within four months of 01/01/2030 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.
- 3.4.2 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.
- 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 "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
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 malt and animal feed.  Production capacity is limited to 484 tonnes per day.
AR2	Section 5.4 Part A1 (a) (ii)	Physico-chemical Treatment of non-hazardous waste waters.	From generation of waste water to discharge to sewer following the on-site ETP treatment including rotating drum screen and balancing.
<b>Directly Associated Activity</b>			
AR3	Electrical power supply	Medium Combustion plants: 3 X CHP: 3.6 MWth each 4 X Kiln burners: 3.45 MWth each 2 X GVK with 2 burners each: 6.1 MWth per burner Natural gas fired.	From receipt of fuel to release of products of combustion to air.
AR4	Raw material storage and handling	Storage and handling of raw materials at the installation	From receipt of raw materials to dispatch of final product.
AR5	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.
AR6	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.
AR7	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.
AR8	Surface water drainage	Collection of uncontaminated site surface waters	Handling and storage of site drainage until discharge to the site surface water system prior to discharge to River Lark

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Regulation 61 (1) Notice – Responses to questions dated 09/06/2022	All parts	07/10/2022
Request for further information dates 20/06/2023	Information provided in relation to BATcs 1, 6, 8, 9, 11, 12, 20, ELP for energy, EPL for wastewater, MCPs, SCR, Stage 1 – 3 Risk Assessment, air emission points, cooling towers, updated site plan.	04/07/2023
Additional information request (dated 22/08/2023)	Updated site plan	22/08/2023
	Non-technical description, 3D site plan.	28/08/2023

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC12	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the ‘Narrative’ BAT where BAT is currently not achieved, but will be achieved before 4 December 2023. The report shall include, but not be limited to, the following:</p> <p>1) Methodology for achieving BAT  2) Associated targets /timelines for reaching compliance by 4 December 2023. 3) Associated targets/timelines, if applicable, for reaching compliance by 4 December 2023.</p> <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 2 and 5.  Refer to BAT Conclusions for a full description of the BAT requirement.</p>	04/12/2023
IC13	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the Best Available Techniques Conclusion Associated Emission Levels (BAT-AELs) where BAT is currently not achieved, but will be achieved.</p> <p>The report shall include, but not be limited to, the following:  Performance against the BAT-AELs.  Methodology applied for reaching the BAT-AELs.  The report shall address the BAT Conclusions for Food, Drink and Milk industries with respect to the following:</p> <ul style="list-style-type: none"> <li>• BAT 20 Table 7 (compliance with BAT-AELs for channelled dust emissions to air from handling and processing of malt and adjuncts).</li> </ul> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	12 months from permit issue or other date agreed in writing with the Environment Agency
IC14	<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 points A6, A7, A8, A9, A10, and A11, identifying the fractions within the PM10 and PM2.5 ranges.</p> <p>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>	12 months from permit issue or other date agreed in writing with the Environment Agency

## 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	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Combined germination kiln vessels 1 and 2 stack	No parameter set	No limit set	--	--	--
A2 [Point A2 on site plan in Schedule 7]	Kiln 1 stack	No parameter set	No limit set	--	--	--
A3 [Point A3 on site plan in Schedule 7]	Kiln 2 stack	No parameter set	No limit set	--	--	--
A4 [Point A4 on site plan in Schedule 7]	Kiln 3 stack	No parameter set	No limit set	--	--	--
A5 [Point A5 on site plan in Schedule 7]	Kiln 4 stack	No parameter set	No limit set	--	--	--
A6 [Point A6 on site plan in schedule 7]	Malt handling exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A7 [Point A7 on site plan in schedule 7]	Barley transfer exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A8 [Point A8 on site plan in schedule 7]	Malt transfer exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A9 [Point A9 on site plan in schedule 7]	Finished malt cleaning exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A10 [Point A10 on site plan in schedule 7]	Finished malt cleaning exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A11 [Point A11 on site plan in schedule 7]	Barley/malt transfer exhaust fan vent via bag filter	Particulate matter	20 mg/m <sup>3</sup> [Note 1]	Average over sampling period	Annually	BS EN 13284-1 [Note 3]
A12 and A13 [Point A12 and A13 on site plan in schedule 7]	Steeping ventilation fans – old plant	No parameter set	No limit set	--	--	--

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A14 to A37 [Point A14 to A37 on site plan in schedule 7]	Germination ventilation fans – old plant	No parameter set	No limit set	--	--	--
A38 and A39 [Point A38 and A39 on site plan in schedule 7]	Kiln ventilation – old plant	No parameter set	No limit set	--	--	--
A40 to A51 [Point A40 to A51 on site plan in schedule 7]	Steeping ventilation fans – new plant	No parameter set	No limit set	--	--	--
A52 to A55 [Point A52 to A55 on site plan in schedule 7]	Germination ventilation fans – new plant	No parameter set	No limit set	--	--	--
A56 to A58 [Point A56 to A58 on site plan in schedule 7]	Kiln ventilation – new plant	No parameter set	No limit set	--	--	--
A59 [Point A59 on site plan in schedule 7]	CHP 1: 3.6MWth Natural gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	250 mg/m <sup>3</sup> [Note 2]	Periodic	Every three years	BS EN 14792
		Carbon monoxide	No limit set [Note 2]	Periodic	Every three years	MCERTS BS EN15058
A60 [Point A60 on site plan in schedule 7]	CHP 2: 3.6MWth Natural gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	250 mg/m <sup>3</sup> [Note 2]	Periodic	Every three years	BS EN 14792
		Carbon monoxide	No limit set [Note 2]	Periodic	Every three years	MCERTS BS EN15058
A61 [Point A61 on site plan in schedule 7]	CHP 3: 3.6MWth Natural gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	250 mg/m <sup>3</sup> [Note 2]	Periodic	Every three years	BS EN 14792
		Carbon monoxide	No limit set	Periodic	Every three years	MCERTS

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
			[Note 2]			BS EN15058
A62 [Point A62 on site plan in schedule 7]	Kiln burner 1 3.45MWth Natural gas	No parameter set	No limit set	--	--	--
A63 [Point A63 on site plan in schedule 7]	Kiln burner 2 3.45MWth Natural gas	No parameter set	No limit set	--	--	--
A64 [Point A64 on site plan in schedule 7]	Kiln burner 3 3.45MWth Natural gas	No parameter set	No limit set	--	--	--
A65 [Point A65 on site plan in schedule 7]	Kiln burner 4 3.45MWth Natural gas	No parameter set	No limit set	--	--	--
A66 [Point A66 on site plan in schedule 7]	GKV A burners 1 – 6.1MWth 2 – 6.1MWth Natural gas	No parameter set	No limit set	--	--	--
A67 [Point A67 on site plan in schedule 7]	GKV B burners 1 – 6.1MWth 2 – 6.1MWth Natural gas	No parameter set	No limit set	--	--	--
<p>NOTE 1 – Emission limit and/or monitoring requirements apply from 01 October 2024, unless otherwise advised by the Environment Agency.</p> <p>NOTE 2 – Emission limit and/or monitoring requirements apply from 1 January 2030, unless otherwise advised by the Environment Agency.</p> <p>NOTE 3 – Monitoring standard or method to be agreed in writing with the Environment Agency if different from BS EN 13284-1.</p>						

<b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 on site plan in schedule 7 emission to River Lark	Uncontaminated run-off and storm water	No parameter 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**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 [Point S1 on site plan in schedule 7] emission to Anglian Water Sewage Treatment Works	Treated process effluent from onsite effluent treatment plant	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.

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Point source emissions to air	A6, A7, A8, A9, A10, A11	Every 12 months	1 January
Parameters as required by condition 3.5.1	A59, A60, A61	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

Parameter	Units
Malt produced	tonnes
Animal feed produced	tonnes

Parameter	Frequency of assessment	Units
Water usage	Annually	m <sup>3</sup>
Energy usage	Annually	MWh
Waste	Annually	tonnes
COD efficiency	Annually*	COD te/te product
Food waste	Annually	tonnes

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

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
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Food Waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 06/02/2023
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

## Part A

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

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

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

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

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

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

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

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

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

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

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator



## Schedule 6 – Interpretation

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

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

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

“emissions to land” includes emissions to groundwater.

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

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

“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.

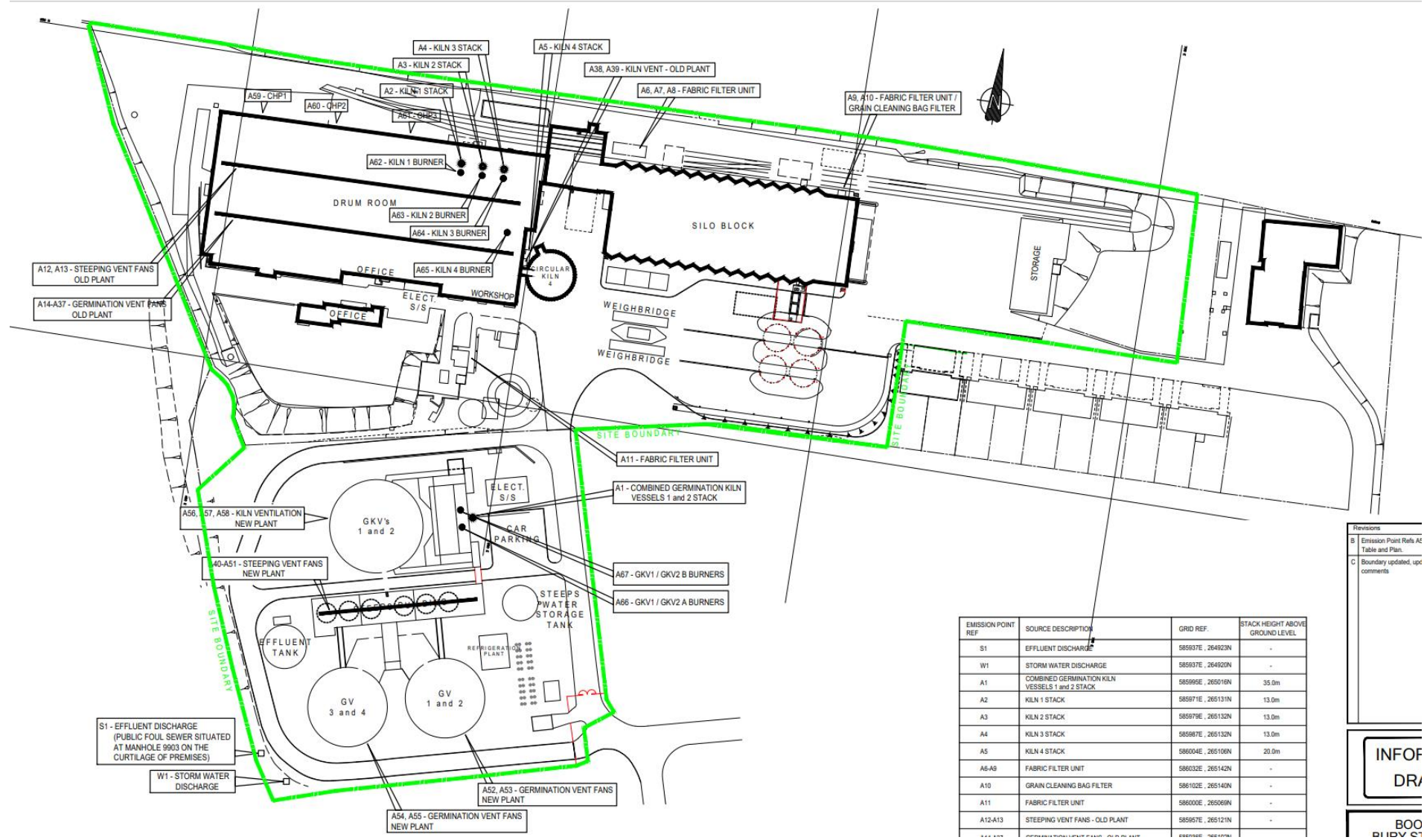
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 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



EMISSION POINT REF	SOURCE DESCRIPTION	GRID REF.	STACK HEIGHT ABOVE GROUND LEVEL
S1	EFFLUENT DISCHARGE	585937E, 264923N	-
W1	STORM WATER DISCHARGE	585937E, 264920N	-
A1	COMBINED GERMINATION KILN VESSELS 1 and 2 STACK	585995E, 265016N	35.0m
A2	KILN 1 STACK	585971E, 265131N	13.0m
A3	KILN 2 STACK	585979E, 265132N	13.0m
A4	KILN 3 STACK	585987E, 265132N	13.0m
A5	KILN 4 STACK	586004E, 265108N	20.0m
A6-A9	FABRIC FILTER UNIT	586032E, 265142N	-
A10	GRAIN CLEANING BAG FILTER	586102E, 265140N	-
A11	FABRIC FILTER UNIT	586000E, 265069N	-
A12-A13	STEEPING VENT FANS - OLD PLANT	585957E, 265121N	-

Revisions:  
 B Emission Point Refs At Table and Plan  
 C Boundary updated, up comments

INFO  
 DR

BOO  
 BLDG CT

END OF PERMIT