Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Simpsons Malt Limited

Tweed Valley Maltings
Ord Road
Tweedside Trading Estate
Berwick-upon Tweed
Northumberland
TD15 2UZ

Variation application number

EPR/GP3932PL/V007

Permit number

EPR/GP3932PL

Tweed Valley Maltings
Permit number EPR/GP3932PL

Introductory note

This introductory note does not form a part of the notice

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

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

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

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

In addition, this variation allows a Derogation from the Chemical Oxygen Deman (COD) BAT-AEL, from BAT 12 of the Food, Drink and Milk Industries BAT conclusions. We have agreed a non-time limited derogation until the next Food, Drink and Milk Bref review based on the technical characteristics of the effluent treatment on site and the geographical location of the site.

The BAT-AEL for direct discharges is 100 mg/l as a daily average. The BAT-AEL cannot currently be met by the plant as the site recycles steep water via Reverse Osmosis (RO) and Membrane Bioreactor (MBR). The RO membranes capture high COD effluent (RO retentate) which cannot be recycled back into the process and produces a hard to breakdown COD which is discharged to the River Tweed.

The operator has proposed (and we have included) a COD ELV of 850mg/l to be included within the permit which will be reviewed on an annual basis. The proposed ELV has been calculated from monitoring data provided by the Operator using the standard deviation of the data along with the average.

The schedules specify the changes made to the permit.

The operator (Simpsons Malt Limited) provides peated malt to the Whisky Industry from the Tweed Valley Maltings site. They produce approximately 267,500 tonnes of malt products per annum at a 4% dry matter white malt equivalent at a plant with a finished product production capacity of more than 300 tonnes per day.

The activities undertaken at the site fall under the following descriptions in Part 2 of Schedule 1 of the Environmental Permitting Regulations (EPR) 2016:

- Section 6.8 Part A(1)(d)(ii) – Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day.
- Section 5.4 Part A(1)(a)(i) - Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment.
- Section 1.1 Part A(1)(a)(i) – Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts

Tweed Valley Maltings is located on the Tweedside Trading Estate within the town of Berwick-upon-Tweed in the area known as Tweedmouth and is operated by Simpsons Malt Limited. The installation is situated near the mouth of the river Tweed on the south side with the North Sea located beyond. Other notable

landmarks include the A1 which is located to the west and the main town of Berwick-upon-Tweed which is located to the northeast of the installation.

The installation processes grains to form malt for the brewing, distilling and food industries across the world. The barley is steeped in the steephouse, in one of 24 large cylindroconical steeping vessels which stand at 11m tall and 5m wide, each has a capacity to hold between 65-75 tonnes of barley. The steeping process uniforms the moisture content of each grain to trigger the start of the germination phase. The steep water is drained away and a period of air rest follows, the process is repeated until a moisture content of 45% has been reached.

After the steeping process the majority of the barley is transferred to one of nine germination & kilning vessels (GKVs) where the germination and kilning process takes place. During this process the endosperm of the grains is modified by breaking down the cell walls and protein matrix making starch granules available for conversion to sugar in the mashing stage of the brewing or distilling processes. Once the germination process is complete the grains are then dried through the kilning process. The kilning process kills the embryo and stabilises the endosperm of the grain leaving viable enzymes that are used by brewers and distillers during mashing. The moisture content of the grains is reduced from 45% to 4% or lower in the finished malt. A smaller quantity of the barley is transferred from the steeping process to germination drum to produce green (unkilned) malt.

The installation operates an effluent treatment plant which treats the process effluent from the operation. The ETP treatment process consists of the following stages, screening to remove gross debris, the collected grains are dewatered and sent off site for energy recovery through anaerobic digestion. Effluent is then stored in the balancing tank and pass forward to the bioreactor at a controlled rate via fine screens. The bioreactor reduces the concentration of COD by promoting bacterial growth, a proportion of resulting sludge (biomass) is dewatered and sent offsite for land spreading as a soil improver. The remaining sludge is passed through ultrafiltration (UF) membranes to remove solids and the filtered permeate is collected in the UF permeate tanks before discharge. A proportion of the permeate is transferred to one of two reverse osmosis (RO) systems. The RO systems ‘polish’ the permeate to allow for reuse within the stepping process, rejected water from the UF is combined with the permeate and discharged to surface water (Tweed Estuary) via emission point W3.

As a result of the steeping process the steep water is unable to be reused without treatment (as described above) as the used steep water would act as a germination inhibiter and prevent the germination of the grains. Polyphenols from the steeping process are captured on the reverse osmosis membranes, these have a high COD to BOD ratio. The use of RO to recycle water reduces the pressure on the abstraction boreholes on which the site relies upon for the onsite processes. The membrane of the RO process captures the high COD, low BOD waste, this is known as RO retentate which is then discharged to the river Tweed.

Uncontaminated site surface water is also discharged to the River Tweed via emission points W1, W2, and W4. Discharges to sewer are via emission points, S1 for domestic effluent, S2 for ETP overflow and S3 Glen Ord Scrubber discharge (not currently in use).

There are additional emission points to air from the storage and handling of barley malt, including 2 dust filters which serve the 9 GKVs (A33 and A34) and wet scrubber abatement from the peat smoking process (A35)

The operator holds an abstraction licence and has two onsite boreholes.

A number of ecologically sensitive sites lie within 10km of the installation. These include the Tweed Estuary SAC, Berwickshire & North Northumberland Coast SAC, North Northumberland Dunes SAC, Lindisfarne SPA and Northumbria Coast SPA. In addition, the Tweed Estuary and Northumberland Shore are SSSI’s located within 2km of the installation.

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

Status log of the permit		
Description	**Date**	**Comments**
Application received EPR/GP3932PL/A001	Received 30/03/2005	Application for a food & drink installation.
Additional information received	27/05/2005 and 09/06/2005	Requests sent 13/05/2005 and 06/06/2005.
Permit determined EPR/GP3932PL	21/09/2005	Permit issued to Tweed Valley Maltings
Application EPR/GP3932PL/V002 (variation)		
Variation determined EPR/GP3932PL	29/12/2005	Varied permit issued
Application EPR/GP3932PL/V003	Duly made 03/06/2008	Variation to allow the following changes on site; • increase in the production capacity to a maximum of 267,500 tonnes/annum; • the addition of six new Germinating Kiln Vessels, GKVs 6 to 9 (Phase 1) and 2 further vessels, GKVs 10 and 11 (Phase 2); • the addition of four burner exhausts as combustion units – emission points A26 – A29; • addition of a Barley drier (A30); and • the installation and operation of an ETP using MBR technology
Additional information received	31/07/2008	Further detail on the impact assessment for the ETP and revised diagrams for air and water emission points.
Additional information received	20/09/2008	Further detail on the barley dressing plant and the emergency discharge arrangement from the WWTP.
Additional information received	15/10/2008	Emergency consent with NWL.
Variation determined EPR/GP3932PL	27/11/2008	Varied permit issued
Agency variation determined EPR/GP3932PL/V004	03/12/2013	Agency variation to implement the changes introduced by IED.
Application EPR/GP3932PL/V005 (variation)	Duly made 24/04/2015	Application to vary permit by adding a wet scrubber as a directly associated activity to reduce particulate emissions from the peat malting process.
Variation determined EPR/GP3932PL	18/05/2015	Varied permit issued.
Application EPR/GP3932PL/V006	09/06/2023	Pre-application advice issued
Application EPR/GP3932PL/V007 (variation and consolidation)	Regulation 61 Notice response received 11/10/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Additional information request	14/08/2023	Information provided in response to questions regarding BATc1, 4, 5, 6, 7, 9, 11, Medium Combustion Plant, climate change adaptation,

Status log of the permit		
Description	**Date**	**Comments**
		Relative Hazardous Substances, Site Condition Report and containment.
Additional information request	03/10/2023	Derogation request form
Additional information received	04/12/2023	Environmental impact assessment
Additional information received	27/03/2024	Environmental impact assessment – additional information
Additional information received	16/04/2024	Derogation request form - revised
Additional information received	22/08/2024	Information on the characteristics of the effluent
Additional information received	03/09/2024	Groundwater and borehole report
Additional information received	06/09/2024	Effluent haulage costs
Additional information received	02/12/2024	Cost Benefit Analysis
Draft notice for consultation	25/03/2025 to 22/04/2025	Consultation on draft decision
Variation determined and consolidation issued EPR/GP3932PL	08/05/2025	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/GP3932PL

Issued to

Simpsons Malt Limited ("the operator")

whose registered office is

Ord Road,
Tweedside Trading Estate,
Berwick-upon-Tweed,
Northumberland
TD15 2UZ

company registration number 00153026

to operate a regulated facility at

Ord Road,
Tweedside Trading Estate,
Berwick-upon-Tweed,
Northumberland
TD15 2UZ

to the extent set out in the schedules.

The notice shall take effect from 08/05/2025.

Name	Date
Denise Horton	**08/05/2025**

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/GP3932PL This is the consolidated permit referred to in the variation and consolidation notice for application EPR/GP3932PL/V007 authorising,

Operator Name ("the operator"),

whose registered office is

Ord Road,
Tweedside Trading Estate,
Berwick-upon-Tweed,
Northumberland
TD15 2UZ

company registration number 00153026

to operate an installation at

Ord Road,
Tweedside Trading Estate,
Berwick-upon-Tweed,
Northumberland
TD15 2UZ

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

Name	Date
Denise Horton	**08/05/2025**

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 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.1.4 For the following activities referenced in schedule 1, table S1.1 (AR2 Germination and Kilning Vessels. Old Side 1-5 and New Side 1-4) 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

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR1	Section 6.8 Part A(1) (d)(ii)	Treating and processing for the production of food from only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day.	From receipt of raw materials to dispatch of finished products of malt from barley grains for use in the brewing and whisky distilling industries. Production capacity is limited to 267,500 tonnes of malt products produced at 4% Dry Matter white malt equivalent.
AR2	Section 1.1 Part A(1)(a)(i)	Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts. Combustion units using natural gas as fuel to germinate and dry raw materials and final product. 3 x 1.6MWth natural gas fired tradition kiln 1.17MWth natural gas fired kiln 3 x 5.2MWth natural gas fired burner drier 0.7MWth water heater <u>Medium Combustion Plant</u>**:** 5 x 2.3MWth natural gas fired GKV burners 4 x 4.4MWth natural gas fired GKV burners	From receipt of fuel to release of products of combustion to air.
AR3	Section 5.4 Part A1 (a) (i)	Biological treatment of non-hazardous waste water using MBR technology	From generation of waste water to treatment of process effluent and discharge to River Tweed Estuary.
Directly Associated Activity			
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	From receipt of raw materials to dispatch of final product.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
		freezing systems at the installation.	
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	Peat smoke abatement	Water based scrubber providing particulate abatement to scheduled activity AR2 (S1.1A(1)(a)(i))	Control of emissions from the peat smoking process.
AR9	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 the River Tweed Estuary.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application for EPR/GP3932PL/A001	The response to questions 2.1 and 2.2 given in pages 9-14 and 24-33 of the application and the PCP Index – process Flow Diagram included as an appendix to the application	30/03/2005
Application for variation EPR/GP3939PL/V003	All information sent as part of the variation submission	03/06/2008
Additional information	Additional detail on impact assessment of ETP and revised diagrams for air and water emission points	31/07/2008
Additional information	Additional information on barley dressing plant, emergency discharge arrangement from the WWTP.	20/09/2008
Additional information	Emergency Consent with NWL	15/10/2008
Application for variation EPR/GP3939PL/V005	BSO 812 Scrubber Monitoring Checks, Rev 1.0 – dated 23/02/2015 in the Supporting Documents	23/03/2015
Additional information	Peat Smoke Scrubber Monitoring Programme in the Supporting Documents	
	SIMPMALT-02731 Report for the Periodic Monitoring of Emissions to Air: Appendix 2 – Scrubber Outlet dated 12/02/2015 page 11 of 18 in the Supporting Documents	
Regulation 61 (1) Notice – Responses to questions dated 09/06/2022	All parts	Received 11/10/2022
Request for further information dates 20/07/2023	BATc 1, 4, 5, 6, 7, 9 and 11 in addition to confirming medium combustion plant details, climate change adaption,	11/08/2023

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC9	The operator shall confirm, with the Environment Agency's agreement, achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved with respect to BATc 1 Refer to BAT Conclusions for a full description of the BAT requirement.	3 months from date of permit issue or other date as agreed in writing with the Environment Agency
IC10	The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs. To demonstrate compliance against BAT 9, the operator shall produce a plan for the onsite refrigerant system(s) at the installation. The plan is to be **approved** by the Environment Agency and shall be incorporated within the existing environmental management system. The plan should include, but not be limited to, the following: • Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. • An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.	3 months from date of permit issue or other date as agreed in writing with the Environment Agency
IC11	The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the BAT conclusion AEL for Chemical Oxygen Demand (COD) where a derogation has been applied for and granted. The report shall include, but not be limited to, the following: • COD emissions monitoring data. • An assessment of the emissions data against the COD emissions limit within the permit • Proposal for measures to be taken to reduce COD emissions • Proposed a reduced COD emission limit value (ELV) for inclusion within the permit • Current performance against the COD BAT-AEL. • Methodology for reaching the BAT-AELs. • Associated targets / timelines for reaching compliance by issue of the next food Drink and Milk Industries Bref. • Any alterations to the initial plan (in progress reports). The report shall address the BAT Conclusions for Food, Drink and Milk industries with respect to the following: • BAT 12 Table 1 (compliance with BAT-AELs for direct discharges to a receiving water body)	Annually until BAT-AEL achieved from 08/05/2025 permit issue date.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC12	The operator shall submit a written report detailing the steps they have taken to reduce emissions to the River Tweed of Chemical Oxygen Deman (COD) from the Installation as part of trials proposed by the Operator through their request for derogation and to be agreed by the Environment Agency. The report shall identify the actions implemented along with an appraisal of their success including any results from trials, including but not limited to: • Melifiq Ozonation and Carbon Filtration • Arvia's Nyex Rosalox system The report shall include proposals for any further methods to be implemented, along with a commitment from the operator to provide a regular update to this report as a minimum every two years. The report shall be submitted for written approval from the Environment Agency.	Every two years from permit issue date 08/05/2025
IC13	The Operator shall submit a written report to the Environment Agency reviewing the efficiency and suitability of the onsite dust abatement from the peat kiln (A35). The report shall contain but not be limited to: • Confirmation of the current abatement efficiency, based on monitoring data, with an appraisal of the performance against Best Available Techniques (BAT). • Comparison of the dust emissions data against an indicative benchmark of 20mg/m^3. • Identification of any improvements that could be made to the plant, such as maintenance and operating techniques, to maintain or improve the performance in line with BAT. • Where required, an appraisal on other suitable abatement techniques as listed with Chapter 2 of the Food, Drink and Milk Industries Bref (2019). The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	12 months from date of issue of the permit or other date as agreed in writing with the Environment Agency
IC14	The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point A35, identifying the fractions within the PM_{10} and $PM_{2.5}$ ranges. The monitoring shall be carried out under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency.	12 months from date of permit issue or other date as agreed in writing with the Environment Agency
IC15	The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including: • CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises, • EEMUA 159 - Above ground flat bottomed storage tanks	12 months from date of permit issue or other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of • current containment measures • any deficiencies identified in comparison to relevant standards, • improvements proposed • time scale for implementation of improvements. The operator shall implement the proposed improvements in line with the timescales agreed by 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]	Traditional Kiln 1 - 1.6 MWth burner fired on natural gas	No parameters set	No limit set	--	--	--
A2 [Point A2 on site plan in Schedule 7]	Traditional Kiln 2 - 1.6 MWth burner fired on natural gas	No parameters set	No limit set	--	--	--
A3 [Point A3 on site plan in Schedule 7]	Traditional Kiln 3 - 1.6 MWth burner fired on natural gas	No parameters set	No limit set	--	--	--
A4 [Point A4 on site plan in Schedule 7]	GKV (Kiln 1) – 2.3 MWth burner fired on natural gas	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A5 [Point A5 on site plan in Schedule 7]	GKV (Kiln 2) - 2.3 MWth burner fired on natural gas	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	100 mg/m^3	Periodic	Every three years	BS EN 14792
		Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058
A6 [Point A6 on site plan in Schedule 7]	GKV (Kiln 3) - 2.3 MWth burner fired on natural gas	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A7 [Point A7 on site plan in Schedule 7]	GKV (Kiln 4) - 2.3 MWth burner fired on natural gas	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058

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**
A8 [Point A8 on site plan in Schedule 7]	GKV (Kiln 5) - 2.3 MWth burner fired on natural gas	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A9 [Point A9 on site plan in Schedule 7]	Glen Ord Kiln – 1.17 MWth burner fired on natural gas	No parameters set	No limit set	--	--	--
A10 [Point A10 on site plan in Schedule 7]	Top/Bottom Burner drier 9 - 5.2MWth fired on natural gas	No parameters set	No limit set	--	--	--
A11 [Point A11 on site plan in Schedule 7]	Top/Bottom Burner drier 10 – 5.2MWth fired on natural gas	No parameters set	No limit set	--	--	--
A12 [Point A12 on site plan in Schedule 7]	Top/Bottom Burner drier 11 – 5.2 MWth fired on natural gas	No parameters set	No limit set	--	--	--
A13 [Point A13 on site plan in Schedule 7]	Wanson Water Heater No1. 0.7MWth Boiler fired on natural gas	No parameters set	No limit set	--	--	--
A15 [Point A15 on site plan in Schedule 7]	Pre-cleaner Room Dust Filter	No parameters set	No limit set	--	--	--
A16 [Point A16 on site plan in Schedule 7]	Jumbo Barley Screening Room Dust Filter (Decommissioned)	--	--	--	--	--
A17 [Point A17 on site plan in Schedule 7]	Malt Dresser Room Dust Filter	No parameters set	No limit set	--	--	--
A18 [Point A18 on site plan in Schedule 7]	Pellet Cooler Dust Filter	No parameters set	No limit set	--	--	--
A21 [Point A21 on site plan in Schedule 7]	Glen Ord Old Plant Dust Filter	No parameters set	No limit set	--	--	--
A22 [Point A22 on site plan in Schedule 7]	Glen Ord New Plant Dust Filter	No parameters set	No limit set	--	--	--

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**
A24 [Point A24 on site plan in Schedule 7]	Silo Building Canopy Dust Filter	No parameters set	No limit set	--	--	--
A26 [Point A26 on site plan in Schedule 7]	GKV Natural Gas Fired Burner No.1 (4.4 MWth)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A27	GKV Natural Gas Fired Burner No.2 (4.4 MWth)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A28	GKV Natural Gas Fired Burner No.3 (4.4 MWth)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A29	GKV Natural Gas Fired Burner No.4 (4.4 MWth)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3 [NOTE 1]	Periodic	Every three years	BS EN 14792 [Note 1]
		Carbon monoxide	No Limit [NOTE 1]	Periodic	Every three years	MCERTS BS EN15058
A30	Barley Dressing Room Dust Filter	No parameters set	No limit set	--	--	--
A31	Malt Outloading Dust Filter	No parameters set	No limit set	--	--	--
A32	Silo Building Rear Dust Filter	No parameters set	No limit set	--	--	--
A33	GKV 3-5 Dust Filter	No parameters set	No limit set	--	--	--

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**
A34	GKV 6-8 Dust Filter	No parameters set	No limit set	--	--	--
A35	Kiln Exhaust (malt peat kiln) via water scrubber	Particulate matter	No limit set	Average over sampling period	Annually	BS EN 13284-1
NOTE 1 – Emission limit and/or monitoring requirements apply from 1 January 2030, unless otherwise advised by the Environment Agency						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W1 [Point W1 on site plan in schedule 7] emission leading to River Tweed Estuary	Uncontaminated surface runoff	No parameter set	No limit set	--	--	--
W2 [Point W2 on site plan in schedule 7] emission leading to River Tweed Estuary	Uncontaminated surface runoff	No parameter set	No limit set	--	--	--
W3 [Point W3 on site plan in schedule 7] emission leading to River Tweed Estuary	Effluent Treatment Plant	Flow	1,400 m^3/day	24-hour total	Continuous	MCERTS self-monitoring of effluent flow scheme
		pH	6-9	Instantaneous	Continuous	--
		Temperature	35	Instantaneous	Continuous	--
		Biological Oxygen Demand (BOD)	24mg/l	24-hour flow proportional sample	Weekly	EN 1899-1
		Total suspended solids	36mg/l	24-hour flow proportional sample	Daily	BS EN 872
		Chemical Oxygen Demand (COD) (note 1)	850mg/l	24-hour flow proportional sample	Daily	BS ISO 15705, ISO 6060

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**
		Total Nitrogen	20 mg/l	24-hour flow proportional sample	Daily	EN 12260, EN ISO 11905-1.
		Total phosphorous	2mg/l	24-hour flow proportional sample	Daily	EN ISO 6878, EN ISO 15681-1&2 EN ISO 11885
		Chloride (Cl)	No limit set	24-hour flow proportional sample	Monthly	EN ISO 10304-1, EN ISO 15682
W4 [Point W4 on site plan in schedule 7] emission leading to River Tweed Estuary	Uncontaminated surface runoff	No parameter set	No limit set	--	--	--
Note 1: Emission limit applies until the next Food, Drink and Milk Bref review						

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S2 [Point S2 on site plan in schedule 7] emission to Northumbrian Water Ltd Ord Road Sewage Treatment Works	ETP overflow	No parameters Set	No limit set	--	--	--
S3 [Point S3 on site plan in schedule 7] emission to Northumbrian Water Ltd Ord Road Sewage Treatment Works	Glen Ord Scrubber Discharge	No parameters Set	No limit set	--	--	--

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Point source emissions to air Parameters as required by condition 3.5.1	A35	Every 12 months	1 January
	A4, A5, A5, A7, A8, A26, A27, A28 & A29	First monitoring undertaken in accordance with Condition 3.1.4 to be reported within 3 months, and then every 3 years thereafter.	From first monitoring requirements in accordance with Condition 3.1.4
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	W3	Quarterly	1 January, 1 April, 1 July & 1 October

Table S4.2: Annual production/treatment	
Parameter	**Units**
Production of malt	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Energy usage	Annually	MWh
Waste	Annually	tonnes
Food waste	Annually	tonnes

Table S4.4 Reporting forms		
Parameter	**Reporting form**	**Form version number and date**
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Food Waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1

Table S4.4 Reporting forms		
Parameter	**Reporting form**	**Form version number and date**
		06/02/2023
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

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

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

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

Part B – to be submitted as soon as practicable

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

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

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

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

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

“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:

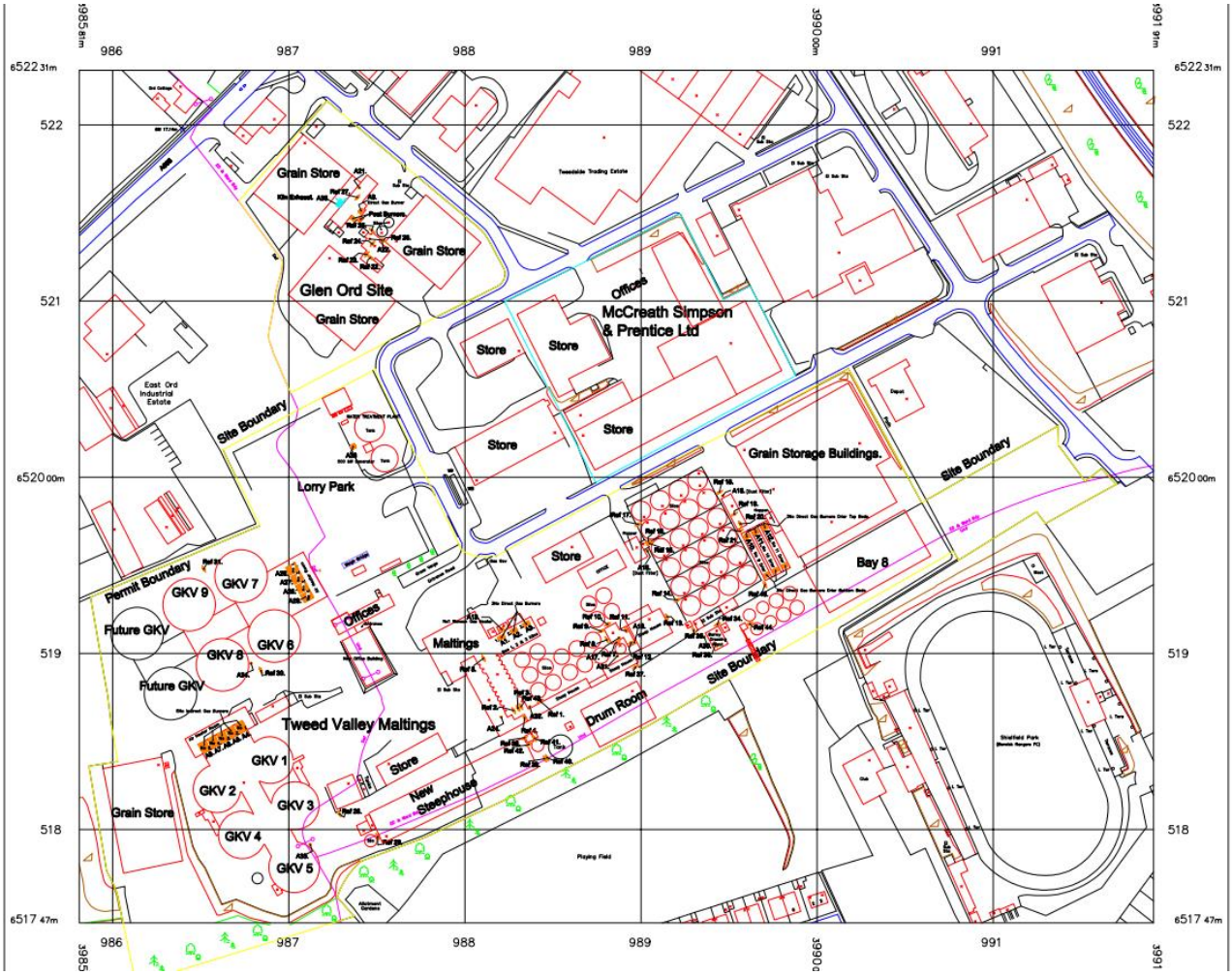
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from 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

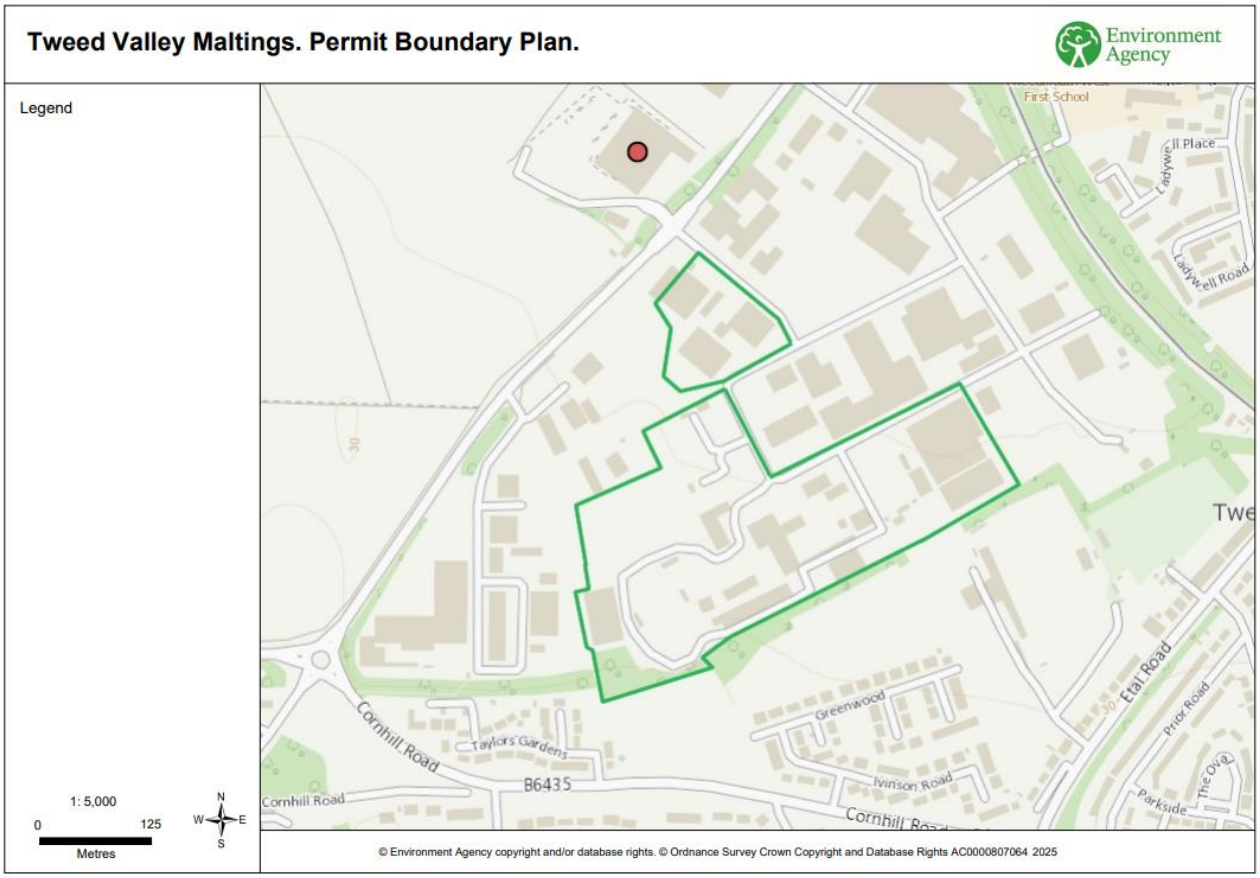
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

"year" means calendar year ending 31 December.

Schedule 7 – Site plan

Emission point plan





END OF PERMIT

Annex to conditions – Derogation under Industrial Emissions Directive

Derogation under Article 15(4) of Industrial Emissions Directive

DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

Operating techniques	We have considered the Operator's proposed techniques and its comparison against other relevant techniques as described in the relevant BAT reference note. Our full reasoning is given in our decision document that accompanies the permit determination. The operator requested a non-time limited derogation from BAT 12, the BAT-AEL for Chemical Oxygen Demand (COD) of 25-100mg/l daily average in the BAT conclusions for Food, Drink and Milk Industries (published on 4th December 2019). The derogation is non-time limited until publication of the next Food, Drink and Milk Bref review (at the latest). An interim Emission Limit Value (ELV) for COD of 850 mg/l has been included within the permit along with Improvement Conditions that require the operator to review the technologies available to reduce the COD concentration in order to meet the BAT-AEL. The proposed techniques will result in emissions for which the appropriate emission limits are less stringent than those associated with the best available techniques as described in BAT conclusions. We have considered the operators justification for departure from the guidance and accept it in the following respects and for the following reasons. The achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to: **the technical and geographical characteristics of the installation concerned.** The site is unable to meet the BAT-AEL for COD as the site recycles steep water via RO and MBR. The RO membranes capture high COD effluent (RO retentate) which cannot be recycled back into the process and produces a hard to breakdown COD which is discharged to the River Tweed. The main potential impact of the COD discharge is the consumption of Dissolved Oxygen (DO) within the watercourse which could lead to 'dissolved oxygen sag'. DO sag is the decrease in the availability of DO levels within a body of water downstream from a point source of a discharge. Modelling undertaken to support the derogation focused on the consumption of the DO as a result of the discharge and concluded the Water Framework Directive (WFD) status of the receiving water course is not impacted as a result of the discharge, and should the discharge meet that of the BAT-AEL there would be a negligible increase in the concentration of DO (+/-1%) and no change in the WFD status. The Operator described two treatment technologies Melifiq Ozonation & Carbon Filter and Arvia Nyex Rosalox system. Both trails showed success in reducing the COD concentration however neither technology has run at scale and further investigation is required before commercial use. The Operator took forward viable options for Cost benefit analysis. These were adequately described and the cost of the BAT-AEL option was confirmed as disproportionate compared to the environmental benefits. We are satisfied that the Operator has demonstrated that the proposed derogation option achieves the best overall environmental outcome, and we have no concerns regarding the ongoing Business as Usual impact upon the River Tweed for the duration of the time limited derogation (until the next Food, Drink and Milk Bref review). The waste water flow

	is having no significant effect on the environment. The time limited derogation gives the operator time to consider water treatment options with the BAT-AEL for COD achieved at a later date. We have included a daily COD limit of 850mg/l for the duration of the derogation along with Improvement Conditions (IC11 and IC12) requiring the operator to review the technologies available in reducing the COD concentration to meet the BAT-AEL. We have ensured that no significant pollution is caused by allowing this derogation, and that a high level of protection of the environment is achieved.

Emissions to Air Reporting Form

Permit number: EPR/GP3932PL **Operator:** Simpsons Malt Limited

Facility name: Tweed Valley Maltings **Emissions to Air Reporting Form: version 1, 08/03/2021**

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

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. A1]	*[e.g. Oxides of nitrogen (NO and NO_2 expressed as NO_2)]*	*[e.g. 200 mg/m^3]*	*[e.g. daily average]*	*[e.g. BS EN 14181]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

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

(Authorised to sign as representative of the operator)

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

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.

[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.

[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Water Reporting Form

Permit number: EPR/GP3932PL **Operator:** Simpsons Malt Limited

Facility name: Tweed Valley Maltings **Emissions to Water Reporting Form: version 1, 08/03/2021**

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

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. W1]	*[e.g. Total suspended solids]*	*[e.g. 30 mg/l]*	*[e.g. For 95% of all measured values of periodic samples taken over one month]*	*[e.g. BS EN 872:2005]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*
W1	pH	6-9	Instantaneous	BS6068-2.50			
	Temperature		Instantaneous	-			
	Total daily volume of discharge	60m^3/day	24 hour total	MCERTS self-monitoring of effluent flow scheme			
	Chemical Oxygen Demand (COD)	850 mg/l	Daily average				
	Total suspended solids (TSS)	36 mg/l	Daily average	BS EN 872			

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
	Total Nitrogen	20 mg/l	Daily average	EN 12260, EN ISO 11905-1.			
	Total Phosphorus	2 mg/l	Daily average	EN ISO 6878, EN ISO 15681-1 and -2, ENISO 11885.			
	Total organic carbon		Daily average	EN 1484			
	Biological oxygen demand	20 mg/l	Monthly Average	EN 1899-1			
	Chloride (Cl^-)		Monthly	EN ISO 10304-1, EN ISO 15682			
W2	pH	6-9	Instantaneous	BS6068-2.50			

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

(Authorised to sign as representative of the operator)

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

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.

[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.

[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Sewer Reporting Form

Permit number: EPR/GP3932PL **Operator:** Simpsons Malt Limited

Facility name: Tweed Valley Maltings **Emissions to Sewer Reporting Form: version 1, 08/03/2021**

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

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

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

(Authorised to sign as representative of the operator)

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

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.

[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.

[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/GP3932PL **Operator:** Simpsons Malt Limited

Facility name: Tweed Valley Maltings **Water Usage Reporting Form: version 1, 08/03/2021**

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

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

Operator's comments

Operator's comments

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

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Permit number: EPR/GP3932PL

Operator: Simpsons Malt Limited

Facility name: Tweed Valley Maltings

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

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

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/tonne of product) [2]
Total	*[insert total energy use in MWh]*	*[insert total energy use per tonne of product MWh/tonne of product]*

Operator's comments

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

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

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

[2] Divide energy consumption by an appropriate unit of raw material processed or product output.

Food Waste Reporting Form

Permit number: **EPR/GP3932PL** **Operator:** **Simpsons Malt Limited**

Facility name: **Tweed Valley Maltings** **Food Waste Reporting Form: version 1, 06/02/2023**

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

Overall food waste (tonnes)	
Food waste as % of product	
Food waste disposal routes	*As specified below*

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

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

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

(Authorised to sign as representative of the operator)

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

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

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

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

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

Other Performance Parameters Reporting Form

Permit number: EPR/GP3932PL

Operator: Simpsons Malt Limited

Facility name: Tweed Valley Maltings

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

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

Parameter	Units
[e.g. Total raw material usage]	*[e.g. tonnes per production unit]*

Operator's comments

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

(Authorised to sign as representative of the operator)

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