Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

NSI Industrial O&M Solutions Ltd

Royal Brewery Effluent Treatment Plant
Royal Brewery Manchester
Denmark Road
Moss Side
Manchester
M15 6LD

Variation application number

EPR/CP3531GM/V009

Permit number

EPR/CP3531GM

Royal Brewery Effluent Treatment Plant
Permit number EPR/CP3531GM

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.

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.

The schedules specify the changes made to the permit.

Multi-operator Installation

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

Royal Brewery Effluent Treatment Plant

This permit is for NSI Industrial O&M Solutions Ltd, the facility is an ETP which receives, and process effluent generated by the brewery. The waste received consists of process effluent and wastewaters from cleaning activities.

The Environmental Permit is for the following scheduled activity:

Section 5.4 A1(b)(i): Recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.

Treatment includes screening and storage, anaerobic digestion, aerobic treatment, dissolved air floatation, and sludge dewatering. The biogas generated is utilised in the onsite CHP. The site also has a flare for emergency use only.

The Rochdale Canal Special Area of Conservation (SAC) is within the screening distance of 10 km from the installation. There are no SSSI within 2 km of the installation boundary.

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 EP3637PU	Received 14/07/2005	

Status log of the permit		
Description	**Date**	**Comments**
Further information	Received 21/07/2005	
Request for information	08/08/2005	Response received 23/08/2005
Permit determined (became EPR/EP3637PU on 06/04/08)	13/01/2006	
Transfer application (EPR/CP3531GM/T001)	Duly made 12/03/2009	
Transfer notice issued (EPR/CP3531GM/T001)	01/04/2009	
Variation application (EPR/CP3531GM/V002)	Duly made 17/11/2009	
Variation issued (EPR/CP3531GM/V002)	15/03/2010	
Agency variation determined EPR/CP3531GM/V003	23/06/2014	Agency variation to implement the changes introduced by IED
Application EPR/CP3531GM/V004 (variation and consolidation)	Duly made 29/08/2014	Application to vary (capacity increase) and update the permit to modern conditions.
Additional information received	14/11/2014	Response to Schedule 5 Notice detailing the bypass operation, waste gas burner, biogas quality, heating of the effluent and site boundary.
Additional information received	02/12/2014	Addendum 3 to application altering the site boundary and including the standby generator.
Variation determined EPR/CP3531GM	05/12/2014	Varied and consolidated permit issued in modern condition format.
Notified change of company name	11/05/2016	Request from operator to update their company name from Ondeo Industrial Solutions Limited to SUEZ Industrial Water Ltd.
Variation issued EPR/CP3531GM/V005	30/06/2016	Varied permit issued to SUEZ Industrial Water Ltd.
Notified of change of registered office address	Duly made 13/04/2017	Registered office address changed to Suez House, Grenfell Road, Maidenhead, Berkshire, SL6 1ES.
Variation issued EPR/CP3531GM/V006	08/05/2017	Varied permit issued to SUEZ Industrial Water Ltd.
Application (variation and consolidation) EPR/CP3531GM/V007	Duly Made 13/07/2020	Application to increase the site boundary and install a biogas Combined Heat and Power plant with associated emission point.
Variation determined EPR/CP3531GM (Billing ref. FP3105BQ).	20/08/2020	Varied permit issued to SUEZ Industrial Water Ltd.
Application EPR/CP3531GM/V009 (variation and consolidation)	Regulation 61 Notice response received 14/03/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Notified of change of Company Name and Registered Office	31/03/2023	Name/Registered Office changed to NSI Industrial O&M Solutions Ltd C/o Nijhuis Saur

Status log of the permit		
Description	**Date**	**Comments**
		Industries UK and Ireland Nanjerrick Court Allet Truro TR4 9DJ
Variation issued EPR/CP3531GM/V008	14/06/2023	Varied permit issued to NSI Industrial O&M Solutions Ltd
Regulation 61(1) Notice – request for further information dated 28/06/2023	Received 28/07/2023	Information relating to: BAT3, BAT4, BAT5, BAT6, BAT7, BAT8, BAT11, BAT12, BAT13, BAT14, BAT16 -WT, BAT21-WT, BAT38-WT, Water Emission, Air Emission, MCP, and RHS Baseline
Variation determined and consolidation issued EPR/CP3531GM (Billing ref. DP3547QM).	30/01/2024	Varied and consolidated permit issued in modern format

Other Part A installation permits relating to this installation		
Operator	**Permit number**	**Date of issue**
Heineken UK Limited	EPR/BV7796IW	22/12/2005

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/CP3531GM

Issued to

NSI Industrial O&M Solutions Ltd (“the operator”)

whose registered office is

C/o Nijhuis Saur Industries UK and Ireland
Nanjerrick Court
Allet
Truro
Cornwall
TR4 9DJ

company registration number 02528695

to operate part of a regulated facility at

Royal Brewery Effluent Treatment Plant
Royal Brewery Manchester
Denmark Road
Moss Side
Manchester
M15 6LD

to the extent set out in the schedules.

The notice shall take effect from 30/01/2024

Name	Date
Stacey Tapsell	**30/01/2024**

Authorised on behalf of the Environment Agency

Schedule 1

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

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/CP3531GM

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/CP3531GM/V009 authorising,

NSI Industrial O&M Solutions Ltd ("the operator"),

whose registered office is

C/o Nijhuis Saur Industries UK and Ireland
Nanjerrick Court
Allet
Truro
Cornwall
TR4 9DJ

company registration number 02528695

to operate part of an installation at

Royal Brewery Effluent Treatment Plant
Royal Brewery Manchester
Denmark Road
Moss Side
Manchester
M15 6LD

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

Name	Date
Stacey Tapsell	**30/01/2024**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

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

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.5 Multiple operator installations

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

2 Operations

2.1 Permitted activities

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

2.1.2 The activities shall be undertaken in accordance with best available techniques.

2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer's recommendations.

2.2 The site

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

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

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

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

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

(b) the composition of the waste;

(c) the handling requirements of the waste;

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

(e) the waste code of the waste.

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

2.4 Improvement programme

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

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

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

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

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

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour, but including ammonia) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.2.4 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds, including methane from diffuse sources.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1, and S3.2

(b) process monitoring specified in table 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, and S3.2 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.

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 Following the detection of an issue listed in condition 4.3.1, the operator shall review and revise the management system and implement any changes as necessary to minimise the risk of re-occurrence of the issue.

4.3.4 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.

4.3.5 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.

4.3.6 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.

4.3.7 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.3.8 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR1	Section 5.4 Part A(1)(b)(i)	Recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	From the receipt of effluent from Royal Brewery Manchester to extraction of biogas and the discharge of treated effluent to Combrook Culvert leading to Daveyhulme Treatment works. Treatment includes screening and storage, anaerobic digestion, aerobic treatment, dissolved air floatation, and sludge dewatering. Only effluent from the adjacent brewery (regulated under permit reference EPR/BV7796IW) shall be accepted for treatment
Directly Associated Activity			
AR2	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.
AR3	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. Storage of biogas produced from on-site anaerobic digestion of waste. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the installation.
AR4	Generation of heat and power	0.6MWth Combined Heat and Power (CHP) plant fuelled on biogas	From receipt of fuel to release of products of combustion to air.
AR5	Emergency flare operation	D19: Incineration on land	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. Use of 1 auxiliary flare required only during periods of breakdown or maintenance of CHP.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR6	Odour Control Unit	Treatment of collected odour from ETP.	Treatment of odorous compounds prior to release to air.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Regulation 61 (1) Notice – Responses to questions dated 09/11/2021	All parts	Received 14/03/2022
Regulation 61(1) Notice – request for further information dated 27/06/2023	Updated R61 response tool	Received 28/07/2023

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC7	Once the production at the brewery is at the increased capacity and the effluent treatment plant is discharging higher volumes of process effluent, the operator shall carry out monitoring (in line with current Environment Agency guidance) to quantify the odour concentrations (ouE/m3) on site and assess the efficiency of the odour abatement plant. This should include but not be limited to emissions of hydrogen sulphide and VOCs. If necessary, this exercise should identify additional BAT control measures to ensure odorous emissions do not cause pollution outside the site boundary. The operator shall provide a report to the Environment Agency detailing odour monitoring results and include a timetable for the implementation of any recommendations made as a result of the odour assessment. Following this, the operator shall update the Odour Management Plan described in Improvement Requirement 6.	All parts of requirement to be completed within 3 months of normal operation at increased capacity.
IC8	The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 1 and BAT 2 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.	29/02/2024 1 months from date of permit issue
IC9	The operator shall produce a climate change adaptation plan, which will form part of the EMS. The plan shall include, but not be limited to: • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.	30/01/2025 12 months from date of permit issue

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	
IC10	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 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.	30/01/2025 12 months from date of permit issue

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**
A19 on site plan in schedule 7	Odour control unit (biofilter)	Hydrogen sulphide	2.5 mg/m^3	Hourly average	Weekly	US EPA method
A20 on site plan in schedule 7	Waste gas burner (biogas flare)	No parameters set	No limit set	--	--	--
A21 on site plan in schedule 7	Rotary Screens	No parameters set	No limit set	--	--	--
A22 on site plan in schedule 7	IC Pressure Relief Pump	No parameters set	No limit set	--	--	--
A23 on site plan in schedule 7	Circox Reactor Cyclone	No parameters set	No limit set	--	--	--
A25 on site plan in schedule 7	Dissolved Air Flotation System	No parameters set	No limit set	--	--	--
A26 on site plan in schedule 7	Sandfilter vent	No parameters set	No limit set	--	--	--
A27 on site plan in schedule 7	Sludge Tanker Offload from IC Reactor	No parameters set	No limit set	--	--	--
A28 on site plan in schedule 7	Biogas buffer	No parameters set	No limit set	--	--	--
A29 – A31 on site plan in schedule 7	Storage Tanks	No parameters set	No limit set	--	--	--
A32 on site plan in schedule 7	Wash Water Storage Tank Vent	No parameters set	No limit set	--	--	--
A33 on site plan in schedule 7	Ultra Filtration Membrane	No parameters set	No limit set	--	--	--
A56 on site plan in schedule 7	CHP engine stack 0.6 MWth biogas fuelled	No parameters set	No limit set	--	--	--

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S1 on site plan in schedule 7 emission to sewer via Combrook Culvert to Davyhulme Waste Water Treatment Works	Effluent Treatment Plant	Total daily volume of discharge	5,130m^3/day	24-hour total	Continuous	MCERTS self-monitoring of effluent flow scheme
		Chemical Oxygen Demand (COD)	No limit set	Daily composite sample	Monthly	ISO 6060
		Total suspended solids	No limit set	Daily composite sample	Monthly	BS EN 872

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Biogas in digester	Flow	Continuous	In accordance with EU weights and measures Regulations	Process monitoring to be recorded using a SCADA system where relevant. Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations
	Methane	Continuous	None specified	
	CO_2	Continuous	None specified	
	O_2	Continuous	None specified	
	Hydrogen sulphide	Daily	None specified	
	Pressure	Continuous	None specified	
Digester(s) and storage tank(s)	Integrity checks	Weekly	Visual assessment	In accordance with design specification and tank integrity checks.
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane	Every 6 months or otherwise agreed in accordance with the LDAR programme	BS EN 15446 In accordance with the LDAR programme	Monitoring points as specified in a DSEAR risk assessment and LDAR programme. Limit as agreed with the Environment Agency as a percentage of the overall gas production.
Emergency flare	Operating hours	Continuous	Recorded duration and frequency. Recording using a SCADA	Date, time and duration of use of auxiliary flare shall be recorded.
	Quantity of gas sent to			Quantity can be estimated from gas flow

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
	emergency flare		system or similar system	composition, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions.
Pressure relief valves and vacuum systems	Gas pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.
	Re-seating	Weekly inspection	Visual	Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.
	Inspection, maintenance, calibration, repair and validation	Following foaming or overtopping or at 3 yearly intervals whichever is sooner	Written scheme of examination in accordance with condition 1.1.1	After a foaming event or sticking, build-up of debris, obstructions or damage, operator must ensure that pressure relief valve function remains within designed gas pressure in accordance with the manufacturer's design by suitably trained and qualified personnel
	Inspection, calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event	Written scheme of examination in accordance with condition 1.1.1	Operator must ensure that valves are re-seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage.

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	A19	6 monthly	1 January
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	S1	6 monthly	1 January
Process monitoring – digester tank integrity Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 5 years from the date of commissioning or as per the manufacturer's recommendation, whichever is sooner	1 January
Process monitoring – under and over pressure relief systems Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months Yearly summary report of over-pressure and under-pressure events detailing mass balance release	1 January
Process monitoring – leak detection and repair (inspection, calibration and maintenance) Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 3 years	1 January
Process monitoring – use of emergency flare Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	**Units**
Effluent treated	tonnes

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

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Waste – recovery/disposal routes	Annually	tonnes
Emergency flare operation	Annually	hours
Biomethane exported	Annually	Hours
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%

Table S4.3 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 sewer	Emissions to Sewer Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Process monitoring	Form Process 1 or other form as agreed in writing by the Environment Agency	Version 1, 17/11/2023
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
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.

“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.

“Leak detection and repair (LDAR) programme’’ means a structured approach to reduce fugitive emissions of organic compounds by detection and subsequent repair or replacement of leaking components. Currently, sniffing (described by EN 15446) and optical gas imaging methods are available for the identification of leaks as set out in BAT 14 and section 6.6.2 of the Waste Treatment BAT Conclusions.

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

“Pests” means Birds, Vermin and Insects.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

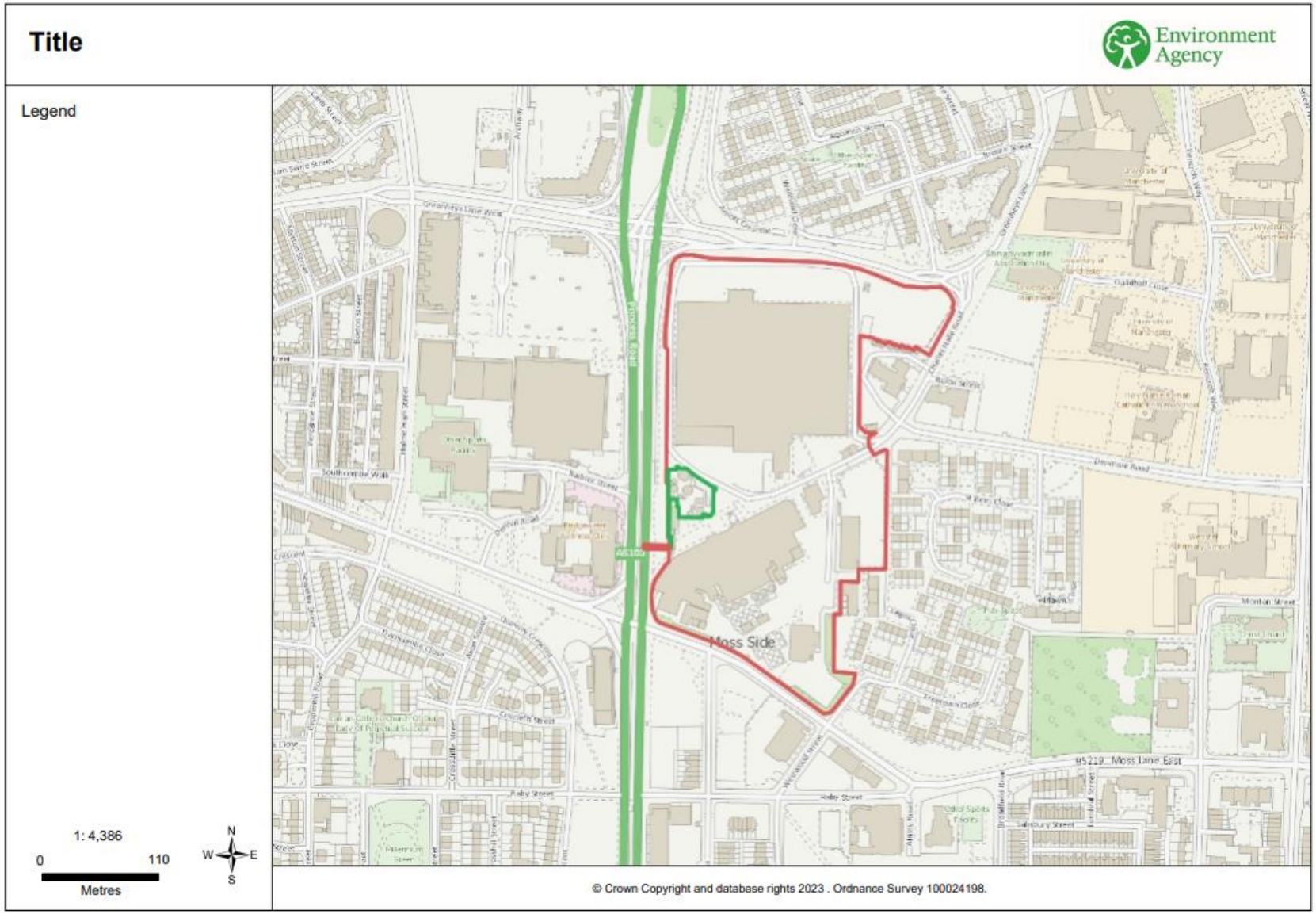
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

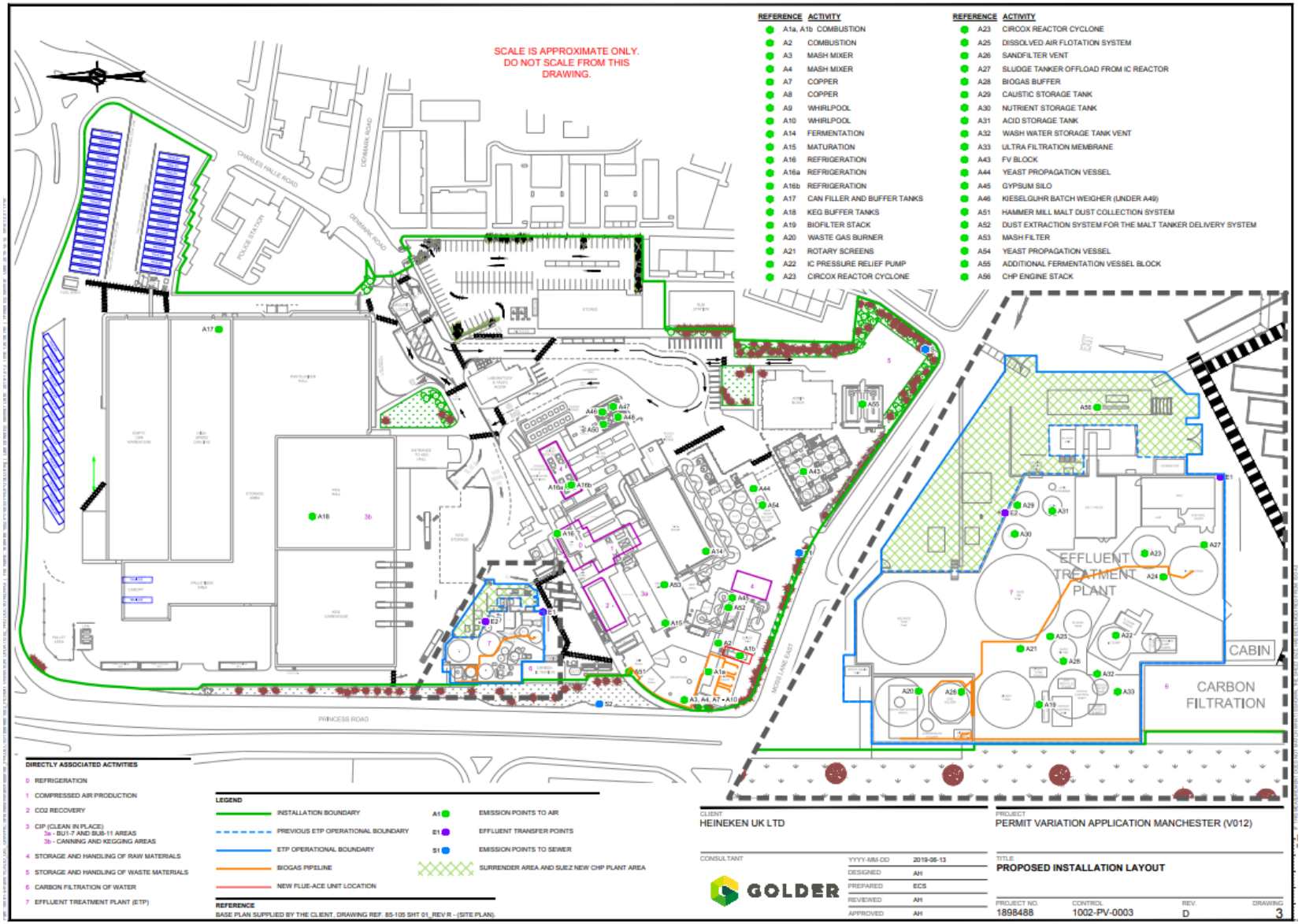
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

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

“year” means calendar year ending 31 December.

Schedule 7 – Site plan





END OF PERMIT

Reporting Forms

Emissions to Air Reporting Form

Permit number: *EPR/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **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 Sewer Reporting Form

Permit number: *EPR/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **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/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **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/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **Energy Usage Reporting Form: version 1, 08/03/2021**

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

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

Process Monitoring Reporting Form

Permit number: *EPR/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **Process Monitoring Reporting Form: version 1, 17/11/2023**

Reporting of other process monitoring for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission Point	**Substance / Parameter**	**Trigger Value /Threshold Value /Industry Standard**	**Result /Reading [1]**	**Test Method [2]**	**Monitoring Date and Time**
Process monitoring of digestion stability					
Digester feed	pH				
	Alkalinity				
	Temperature				
	Hydraulic loading rate				
	Organic loading rate				
	Volatile fatty acids concentration				
	Ammonia				
	Liquid/foam level				
Digestate (Other monitoring)					
Digestate batch	Volatile fatty acids concentration				
	Ammonia				

Emission Point	**Substance / Parameter**	**Trigger Value /Threshold Value /Industry Standard**	**Result /Reading [1]**	**Test Method [2]**	**Monitoring Date and Time**
Monitoring of biogas produced					
Biogas in digester	Flow				
	Methane				
	CO_2				
	O_2				
	Hydrogen sulphide				
	Pressure				
Tank structural integrity					
Digester and storage structural stability	Integrity checks				
Digester tanks (Other monitoring)					
Digester tank	Agitation /mixing				
	Tank capacity and sediment assessment				
Site odour monitoring					
Waste reception building or area; Digester(s) and storage tank(s)	Odour olfactory monitoring				
Monitoring of diffuse emissions					
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane				

Emission Point	**Substance / Parameter**	**Trigger Value /Threshold Value /Industry Standard**	**Result /Reading [1]**	**Test Method [2]**	**Monitoring Date and Time**
Meteorological conditions					
Wind speed					
Wind direction					
Air temperature					
Emergency flare operation (enclosed flares)					
	Date of operation				
	Time of operation				
	Duration of operation				
	Annual operational hours				
Emergency flare operation (shrouded flares)					
	Operating hours – (date, time & duration of operation)				
	Operating temperature (date, time & duration of operation)				
	Operating gas flow (date, time & duration of operation)				
	Annual operational hours				
Pressure relief valve operation					
Date of release	Biogas release				

Emission Point	**Substance / Parameter**	**Trigger Value /Threshold Value /Industry Standard**	**Result /Reading [1]**	**Test Method [2]**	**Monitoring Date and Time**
Time of release					
Duration of release					
Annual mass release					
Storage lagoons and storage tank volume (for digestate and leachate storage)					
Daily volume check	Volume				
Storage tank volume (Digesters /Feedstock tanks / Other tanks)					
Daily volume check	Volume				

1. Monitoring results can be submitted to the Environment Agency in an electronic format or in other format as agreed in writing by the Environment Agency.
2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

Signed ……. Date……..

(Authorised to sign as representative of Operator)

Other Performance Parameters Reporting Form

Permit number: *EPR/CP3531GM* **Operator:** *NSI Industrial O&M Solutions Ltd*

Facility name: *Royal Brewery Effluent Treatment Plant* **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]*
Effluent treated	m3
Waste sent for recovery (specify route)	tonnes
Waste sent for recycling (specify route)	tonnes
Total product waste sent for disposal (specify route)	tonnes

Operator's comments

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

(Authorised to sign as representative of the operator)

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.