

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Ensus UK Limited
Wilton Bioethanol Plant
Middleway
Wilton International
Wilton
Redcar
TS90 8WS

Variation application number

EPR/VP3831XJ/V006

Permit number

EPR/VP3831XJ

Wilton Bioethanol Plant

Permit number EPR/VP3831XJ

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.

Changes introduced by this variation notice/statutory review

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for the production of large volume organic chemicals. The opportunity has also been taken to consolidate the original permit and subsequent variations.

The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) conclusions as described in the Commission Implementing Decision. The BAT conclusions for production of large volume organic chemicals were published on 07 December 2017 in the Official Journal of the European Union (L323) following a European Union wide review of BAT, implementing decision 2017/2117/EU of 21 November 2017.

Where appropriate, we also considered other relevant BAT Conclusions published prior to this date but not previously included in a permit review for the Installation:-

Common waste water and waste gas treatment/management systems in the chemical sector. Published 09 June 2016.

In addition, as the process related effluent load for Total Organic Carbon (TOC) mainly comes from the production of animal feed we have considered The Food, Drink and Milk Industries BAT Conclusions published 04 December 2019.

The BAT Conclusions for this installation which apply from 7th December 2021 are:
Production of Large Volume Organic Chemicals:

BATc 2, 8, 10-11, 13-14, 17-19

Common waste water and waste gas treatment/management systems in the chemical sector:

BATc 1-13, 15-16, 19-20, 23

The BAT Conclusions for this installation that apply from 4th December 2023 are:

The Food, Drink and Milk Industries:

BATc 1-4, 6-8, 10-15

The schedules specify the changes made to the 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.

Brief Description of the process

The installation is located at the Wilton International site situated approximately 6 km northeast of Middlesbrough.

The primary activity is the manufacture of bioethanol from wheat grain under scheduled activity S4.1 A(1)(a)(ii). A further scheduled activity S6.8 A(1)(d)(ii) authorises treatment and processing of the by-product Dry Distillers' Grains with Solubles (DDGS) and syrup which is intended for the production of animal feed. The site has annual manufacturing capacity of 400,000 tonnes of bioethanol, 350,000 tonnes of high protein animal feed and 250,000 tonnes of Carbon dioxide.

Wheat grain is crushed, mixed with water and cooked in steam. Enzymes are added which assist in breaking down the resultant starch into sugars prior to the addition of yeast. This resulting "wort" is fermented for approximately 2 days. The resultant liquor is directed through a distillation system to separate the ethanol from the remaining water and solids. The resulting liquid is passed through molecular sieves to remove any remaining water, resulting in a 99.5% pure ethanol product. The product is temporarily stored at the installation prior to being exported, via pipeline, to the Navigator terminal located at Seal Sands 5km northwest of the installation, from where it is stored and redistributed.

Distillers grains produced as a by-product of the ethanol distillation process are dried to produce DDGS for high protein animal feed. The fermentation process also produces carbon dioxide which is captured and transferred to Wilton CO₂ Liquefaction Plant (EPR/SP3539YX) operated by Nippon Gases UK Limited who liquefy the gas for distribution to food, drinks and industrial customers. The transfer pipeline between the Bioethanol Plant and the Liquefaction plant and the footprint of the Liquefaction Plant are included within the installation boundary.

Emissions from the fermentation and distillation processes principally comprise carbon dioxide and ethanol, with other trace Volatile Organic Compounds (VOCs) also present. Waste gas emissions are discharge to air via emission point A1 through a regenerative thermal oxidiser (RTO), in order to destroy any remaining VOCs, converting them into carbon dioxide and water, and in doing so abating odour that may be associated with the VOCs released from the process.

Emissions from the DDGS drying process consist of VOCs and also of dust. Particulate matter is abated by cyclones treating recycle air and heat recovery is maximised using heat storing beds. There are two 3.6 MWth natural gas RTO's fitted to the drier outlets, the discharges from each RTO is released to air at emission point A2 via a common 80 metre stack.

There are a number of point source emissions associated with the milling and grinding processes, which are abated through bag filters.

All process and wash waters are re-used where possible. However cooling water blow-down is discharged into the Wilton Site drainage system which is managed and operated by SembCorp Utilities UK Limited.

The installation is within 10km of a SAC, 2 SPAs and a Ramsar, there are no SSSIs within 2 km of the installation but there is one Ancient Woodland.

The site has an Environmental Management System which is aligned to ISO14001 but not certificated.

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/VP3831XJ/A001	Duly made 14/05/08	Application Installation
Additional information received	04/07/08 21/07/08	
Permit determined EPR/VP3831XJ	03/11/08	
Variation determined EPR/VP3831XJ/V002	02/07/09	Application to vary and remove the requirement to monitor flow from emission point W1 to the Wilton Drainage System

Status log of the permit		
Description	Date	Comments
Variation Application EPR/VP3832XJ/V003	Duly made 07/07/09	Application to vary and authorise the handling of the CO ₂ by-product as a directly associated activity and to amend the installation boundary to include the transfer pipeline and Wilton CO ₂ Liquifaction Plant within the installation boundary
Variation determined EPR/VP3831XJ/V003	12/03/10	
Variation Application EPR/VP3832XJ/V004	Duly made 26/07/10	Application to vary and authorise the optimisation of the DDGS drier scrubber.
Variation determined EPR/VP3831XJ/V004	17/09/10	
Variation Application EPR/VP3832XJ/V005	Duly made 13/12/10	Application to vary to authorise the operation of 2 additional RTOs to reduce odour from the DDGS drying process.
Additional information received	18/02/11 24/03/11 25/03/11	
Variation determined EPR/VP3831XJ/V005	18/04/11	
Regulation 61 Notice dated 04/05/18 (Notice requiring information for statutory review of permit)	Response Received 07/08/18 & 10/08/18	Response to address: <ul style="list-style-type: none"> • Compliance with LVOC BATc General Section and CWW BATc • Environmental Risk Assessment report relating to the potential of soil and groundwater contamination. • H1 Screening Assessment report for releases to water of Hazardous substances from the operations at the site.
Further Regulation 61 response	09/10/18	Operator review of existing permit
Additional information received	04/10/21	BAT Derogation for TOC Via Emission Point W1 dated 30 September 2021
	10/12/21	Outstanding information regarding LVOC BATc2 & CWW BATc1, 12. Request to withdraw derogation.
	21/12/21	Further information for CWW BATc12, metal analysis.
EPR/VP3832XJ/V006 (variation and consolidation)	Environment Agency Initiated Variation	Statutory review of permit occasioned by LVOC BAT Conclusions published 07 December 2017
Variation determined EPR/VP3831XJ/V006 (Billing Ref: ZP3638QU) PAS reference for this variation	16/02/22	Varied and consolidated permit issued

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Nippon Gases UK Limited	EPR/SP3539YX	08/08/19

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/VP3831XJ

Issued to

Ensus UK Limited (“the operator”)

whose registered office is

Ensus Admin Building

Middleway

Wilton

Redcar

TS10 4RG

company registration number 05816694

to operate a regulated facility at

Wilton Bioethanol Plant

Middleway

Wilton International

Wilton

Redcar

TS90 8WS

to the extent set out in the schedules.

The notice shall take effect from 16/02/22

Name	Date
Anne Lloyd	16/02/2022

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/VP3831XJ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3832XJ/V006 authorising,

Ensus UK Limited (“the operator”),

whose registered office is

Ensus Admin Building

Middleway

Wilton,

Redcar

TS10 4RG

company registration number 05816694

to operate an installation at

Wilton Bioethanol Plant

Middleway

Wilton International

Wilton

Redcar

TS90 8WS

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

Name	Date
Anne Lloyd	16/02/2022

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(s) of the installation of the same information.

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

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

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

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

3.4 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.

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.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

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

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

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

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

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

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	Section 4.1 A(1)(a)(ii) producing organic chemical compounds containing oxygen	Production of bioethanol	From receipt of wheat grains and other raw materials, to ethanol storage on site and transfer to Navigator terminal at Seal Sands.
AR2	Section 6.8 A(1)(d)(ii) Treating and processing materials intended for the production of food products from vegetable raw materials at a plant with a finished production of capacity more than 300 tonnes per day (average value on a quarterly basis)	Production of animal feed from dry distillers grain with solubles (DDGS) and Modified Distillers Grains with Solubles (MDGS)	Receipt of wet cake, syrup and recycled product DDGS into two natural gas-fired DDGS driers. Processing to produce animal food in a plant with a capacity of 1054 tonnes per day to despatch of product.
Directly Associated Activity			
A3 Temporary product Storage		Fermentation, Distillation	Product Shift tanks and recycled product tanks
A4 Storage of DDGS		Storage	Modified distillers grain with solubles
A5 Waste Storage		Storage of wastes produced by the process	General wastes, Oils, Excess fuel oils
A6 Waste gas VOC abatement		3 x Regenerative Thermal Oxidiser and Dryer vent gas scrubber	Off gases from the fermentation and distillation processes to subsequent release to atmosphere at the RTO outlet emission points A1 and A2.
A7 Cooling towers		Raw water treatment, cooling water distribution systems and water chiller	Receipt of raw water to discharge into the Wilton Site drainage system.
A8 Handling of carbon dioxide		Handling of carbon dioxide prior to transfer to the Wilton CO ₂ Liquefaction Plant.	From receipt of carbon dioxide to despatch to the Wilton CO ₂ Liquefaction Plant.
A9 Transfer of carbon dioxide		Transfer of carbon dioxide Via pipeline from the Wilton Bioethanol Plant to the Wilton CO ₂ Liquefaction Plant	Transfer of carbon dioxide via the pipeline identified on the plan in schedule 7.
A10 Surface and waste water discharge		Process waste water and rainwater runoff	From collection at W1 to discharge into the Wilton Site drainage system which is managed and operated

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
			by SembCorp Utilities UK Limited.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/VP3831XJ/A001	The response to section 2.1, 2.2, 2.3, 2.4, 2.5, and 2.6 in the Application.	14/05/08
Response to Schedule 5 Notice dated 25/06/08	Response to question 1 detailing secondary containment. Response to question 2 detailing effectiveness of drainage system in event of catastrophic loss. Response to question 4 detailing fugitive releases. Response to question 5 detailing monitoring at release points A3-A8. Response to question 6 detailing construction and leak detection associated with underground cooling water pipes. Response to question 7 detailing integrity testing of sumps and pits.	21/07/08
Variation EPR/VP3831XJ/V004 Application	Response to Form C, Question 2b, given in Appendix 1 of the variation application detailing discharge of purge from DDGS drier scrubber at emission point W1. Response to Form C, Question 2b, given in Appendix 1 of the variation application detailing use of hydrogen peroxide and sodium hydroxide to optimise the performance of the DDGS drier scrubber. These substances are added to the scrubber liquor. Response to Form C, Question 2b, given in Appendix 1 of the variation application detailing increase in stack height to 80m for emission point A2.	26/07/10
Variation EPR/VP3831XJ/V005 Application	Response to Form C3 given in Appendix 1 of the variation application detailing RTO Process Description and Noise & Vibration. Also RTO Emission Guarantees given in Appendix 1B.	29/10/10
Additional Information	RTO Initial Commissioning Plan 2011 (version 4)	24/03/11
Additional Information	SMP 1708 Drier RTO Operating Protocol (version 1 or as otherwise agreed in writing with the Environment Agency)	25/03/11
Variation EPR/VP3831XY/V006 Regulation 61 Notice – request for further information dated 04/05/18	Technical standards in relation to Best available techniques as described in BAT conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for Production of Large Volume Organic Chemicals BAT Conclusions Numbers 2, 8, 10-11, 13, 14, 17-19 Common waste water and waste gas treatment/management systems in the chemical sector BAT Conclusions BATc 1- 4, 6-10, 13, 15-16, 19-20, 23.	Received 10/08/18
Additional Information	Section 4 – ‘the sources which contribute to the site drainage’, section 5 – ‘the TOC sources’ and Appendix B – Site Drainage Plan of BAT Derogation for TOC sources via	Received 04/10/21

Table S1.2 Operating techniques		
Description	Parts	Date Received
	Emission Point W1 dated 30 September 2021	
Odour Management Plan	Document E1101-HEP0300-0005 Revision:1.0	07/03/19

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC13	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 01/08/22. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology for achieving BAT • Associated targets / timelines for reaching compliance by 01/08/22 • Any alterations to the initial plan (in progress reports).. <p>The report shall address the following BAT Conclusion:</p> <ul style="list-style-type: none"> • Production of Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector BAT 1 (Improve overall environmental performance implement and adhere to an EMS incorporating all the described features) <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>Progress report by:</p> <p>01/04/22</p> <p>01/08/22</p>
IC14	<p>The operator shall either,</p> <p>A) submit, for approval by the Environment Agency, a report setting out progress to achieving the BAT conclusion AELs where BAT is currently not achieved, but will be achieved before 04/12/23. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> i) Current performance against the BATc AEL. ii) Methodology for reaching the AELs. iii) Associated targets / timelines for reaching compliance by 04/12/23. iv) Any alterations to the initial plan (in progress reports). <p>The report shall address the following BAT Conclusions:</p> <ul style="list-style-type: none"> • The food, drink and milk industries BAT conclusion 12, Section 1.7 Table 1 (compliance with BAT-AEL Chemical oxygen demand –COD at emission point W1) <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p> <p>OR</p> <p>B) Submit to the Environment Agency alternative emission limits by way of a derogation in accordance with article 15(4) of the Industrial Emissions Directive and Industrial Emissions Directive EPR Guidance on Part A installations.</p>	<p>Progress reports by:</p> <p>01/06/22</p> <p>01/12/22</p> <p>01/06/23</p> <p>04/12/23</p>

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>The derogation application shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> i. The BAT conclusions the operator wishes to derogate from and relevant BAT-AELs; ii. The operator's current performance against the BAT-AELs; iii. Derogation evidence and the qualifying criteria identified in article 15(4) of IED that is relevant to this site; iv. A timeline for compliance with the BAT-AELs or confirmation that this is a request for an open ended derogation; v. An options appraisal of all other potential ways to deliver compliance with the BAT-AELs with justifications as to which options are to be taken forward; vi. A cost benefit analysis of the options and preferred solution showing that any other action would incur disproportionate costs; and vii. A demonstration that no significant pollution is caused and that a high level of environmental protection is achieved 	
IC15	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 04/12/23. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology for achieving BAT • Associated targets / timelines for reaching compliance by 04/12/23 • Any alterations to the initial plan (in progress reports). <p>The report shall address the following BAT Conclusion:</p> <ul style="list-style-type: none"> • Food, Drink and Milk Industries BAT conclusion 6, Section 1.3 energy efficiency; And BAT conclusion 7, Section 1.4 Water consumption and waste water discharge • Refer to BAT Conclusions for a full description of the BAT requirement. 	<p>Progress reports by:</p> <p>01/06/22</p> <p>01/12/22</p> <p>01/06/23</p> <p>04/12/23</p>
IC16	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology for achieving BAT. • Associated targets / timelines for reaching compliance. • Any alterations to the initial plan (in progress reports). <p>The report shall address the following BAT Conclusions:</p> <ul style="list-style-type: none"> • Common waste water and waste gas treatment/management systems in the chemical sector: BAT Conclusion 2 ((to facilitate reduction of emissions to water and air and water usage). <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>Progress report by:</p> <p>01/04/22</p> <p>01/08/22</p>

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC17	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology for achieving BAT. • Associated targets / timelines for reaching compliance. • Any alterations to the initial plan (in progress reports). <p>The report shall address the following BAT Conclusions:</p> <ul style="list-style-type: none"> • Common waste water and waste gas treatment/management systems in the chemical sector: BAT Conclusion 5 (monitor diffuse VOC emissions). <p>Refer to BAT Conclusions for a full description of the BAT requirement</p>	<p>Progress report by:</p> <p>01/04/22</p> <p>01/08/22</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas used in DDGS drier burners and 3 x RTOs	Natural Gas

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	Fermentation and distillation via Regenerative Thermal Oxidiser (RTO) Stack	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	50 mg/m ³		Annual	BS EN 14792
		Carbon Monoxide	100 mg/m ³		Annual	BS EN 15058
		Total VOC (as carbon)	75mg/ m ³		Annual	BS EN 12619
A2	DDGS Driers A & B via RTO Stack	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	200 mg/ m ³		Annual	BS EN 14792
		Carbon Monoxide	100mg/ m ³		Annual	BS EN 15058
		Total Particulate Matter (PM)	20mg/ m ³		Annual	BS EN 13284-1
		Total VOC (as carbon)	75mg/ m ³		Annual	BS EN 12619
		Odour	No limit set		Annual	BS EN 13725
A3	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A4	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A5	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A6	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A7	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A8	Milling Building vent	Particulate Matter (PM ₁₀)	10 mg/ m ³		Annual	BS EN 13284-1
A9 (Bag Filter DC110)	Grain Receipt Offloading point ground floor	Particulate Matter (PM ₁₀)	No limit set		--	--
A10 (Bag Filter DC112A/B)	Grain Receipt Top of elevator	Particulate Matter (PM ₁₀)	No limit set		--	--

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A11 (Bag Filter DC129)	Grain Receipt Bucket elevator	Particulate Matter (PM ₁₀)	No limit set		--	--
A12 (Bag Filter DC135A/B)	Grain Receipt conveyor (Top)	Particulate Matter (PM ₁₀)	No limit set		--	--
A13(Bag Filter DC137)	Grain Receipt conveyor (Top)	Particulate Matter (PM ₁₀)	No limit set		--	--
A14 (Bag Filter DC227)	Milling building Inside building	Particulate Matter (PM ₁₀)	No limit set		--	--
A15 (Bag Filter DC239)	Milling building Inside building	Particulate Matter (PM ₁₀)	No limit set		--	--
A16 (Bag Filter DC653A/B)	DDGS Cooler discharges into the drier combustor	Particulate Matter (PM ₁₀)	No limit set		--	--
A17 (Bag Filter DC669A/B)	DDGS Cooler discharges into the drier combustor	Particulate Matter (PM ₁₀)	No limit set		--	--
A18 (Bag Filter DC907)	DDGS Shed West side of the DDGS Shed	Particulate Matter (PM ₁₀)	No limit set		--	--

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
W1 – Shown as point 14 in Appendix B – Site Drainage System in the Withdrawn	Site Waste Water	Flow	No limit set	Instantaneous	Continuous	MCERTs self monitoring of effluent flow scheme
		Total daily volume of discharge	No limit set	24-hour total	Continuous	
		pH	Minimum 5.5, Maximum 10.5	Instantaneous	Continuous	ISO 10523:1994 or BS 6068-2.50:1995

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
BAT Derogation Application for TOC Emissions Via Emission Point W1 dated 30 September 2021. Draining to Sembcorp and thereafter the River Tees.		Temperature	Maximum 40°C	Instantaneous	Continuous	Verified temperature probe
		Total organic carbon (TOC)	No limit set	Instantaneous	Continuous	Acidified sodium persulphate, oxidation and NDIR detector.
		TOC ^{Note1}	100 mg/l	Yearly average of 24 hour flow proportional composite sampling	Daily	BS EN 1484
		Chemical oxygen demand (COD) ^{Note2}	100 mg/l	Daily average 24 hour flow proportional composite sampling	Daily	BS 6068-2.34 or BS ISO 15705
		Total suspended solids (TSS)	30mg/l	Yearly average of 24 hour flow proportional composite samples	Daily	BS EN 872
		Oils and greases	Free from visible oils and greases	24 hour flow proportional composite samples	Daily	Visual Assessment
		Total Nitrogen	No limit set	24 hour flow proportional composite samples	Weekly ^{Note7}	BS EN 12260
		Total Phosphorus	No limit set	24 hour flow proportional composite samples	Weekly ^{Note7}	BS EN ISO 15681-1 BS EN ISO 15681-2 BS EN ISO 6878
		Chromium	25 µg/l ^{Note3}	Yearly average of 24-hour flow proportional composite samples	Monthly	BS EN ISO 11885 BS EN ISO 17294-1
		Copper	50 µg/l ^{Note4}	Yearly average of 24-hour flow proportional composite samples	Monthly	BS EN ISO 17294-2 BS EN ISO 15586
		Nickel	50 µg/l ^{Note5}	Yearly average of 24-hour flow proportional	Monthly	

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
				composite samples		
		Zinc	300 µg/l Note6	Yearly average of 24-hour flow proportional composite samples	Monthly	

Note1: Limit applies until 04/12/23.

Note 2: Limit applies from 04/12//23.

Note 3: If the emission is less than 2.5 kg/year, monitoring can be discontinued and the emission limit value is no longer applicable.

Note 4: If the emission is less than 5.0 kg/year, monitoring can be discontinued and the emission limit value is no longer applicable.

Note 5: If the emission is less than 5.0 kg/year, monitoring can be discontinued and the emission limit value is no longer applicable.

Note 6: If the emission is less than 30 kg/year, monitoring can be discontinued and the emission limit value is no longer applicable.

Note 7: The frequency can be reviewed with a 12 month data set.

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Bed on fermentation and distillation RTO associated with release point A1	Temperature	Continuous	Verified temperature probe	Minimum 850°C
Combustion chamber on the DDGS Drier A RTO associated with release point A2	Temperature	Continuous	Verified temperature probe	Minimum combustion chamber temperature of 800°C
Inlet and Outlet of the DDGS Drier A RTO associated with the release point A2	Total VOC (as carbon)	Quarterly	BS EN 13526 (modified with an inlet water trap) ¹	99.3% destruction
	Odour		BS EN 137251	98% destruction or to a residual level of 1000 ouE/m ³ (whichever is the highest)
Combustion chamber on the DDGS Drier B RTO associated with release point A2	Temperature	Continuous	Verified temperature probe	Minimum combustion chamber temperature of 800°C

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
Combustion chamber on the DDGS Drier B RTO associated with release point A2	Total VOC (as carbon)	Quarterly	BS EN 13526(modified with an inlet water trap) ¹	99.3% destruction
	Odour		BS EN 137251	98% destruction or to a residual level of 1000 ouE/m ³ (whichever is the highest)

¹ Or as otherwise agreed by the Environment Agency

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
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4, A5, A6, A7, A8	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
Ethanol	Tonnes
DDGS	Tonnes
MDGS	Tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	Tonnes
Energy usage	Annually	MWh
Date, duration and reason for regenerative thermal oxidisers on release point A2 being unavailable.	Quarterly	-
Written Operator review of SMP 1708 Drier RTO Operating protocol	Quarterly	-

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Emissions to Air	Form air1 or other form as agreed in writing by the Environment Agency	16/02/22
Emissions to Water and Land (other than sewer)	Form water1 or other form as agreed in writing by the Environment Agency	16/02/22
Water Usage	Form waterusage1 or other form as agreed in writing by the Environment Agency	16/02/22
Energy Usage	Form energy1 or other form as agreed in writing by the Environment Agency	16/02/22

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.

“annually” means once every year.

“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.

“BAT-AELs” means BAT-associated emission levels, i.e. the emission levels associated with the best available techniques for emissions to air and/or water, as set out in

“Common waste water and waste gas treatment/management systems in the chemical sector BAT Conclusions or CWW” means Commission Implementing Decision (EU) 2016/902 of 30 May 2016 establishing Best Available Techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for Common Waste Water And Waste Gas Treatment/ Management Systems in the Chemical Sector

“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.

“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.

“fugitive emissions” means diffuse VOC emissions from ‘point’ sources.

“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

“Large Volume Organic Chemicals BAT Conclusions or LVOC” means The Commission Implementing Decision (EU) 2017/2117 of 21 November 2017 establishing Best Available Techniques (BAT) conclusions,

under Directive 2010/75/EU of the European Parliament and of the Council, for the Production of Large Volume Organic Chemicals as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“The Food, Drink and Milk Industries BAT Conclusions or FDM” means Commission Implementing Decision (EU) 2019/2031 of 12 November 2019 establishing best available techniques (BAT) conclusions for the food, drink and milk industries, under Directive 2010/75/EU of the European Parliament and of the Council as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016

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:

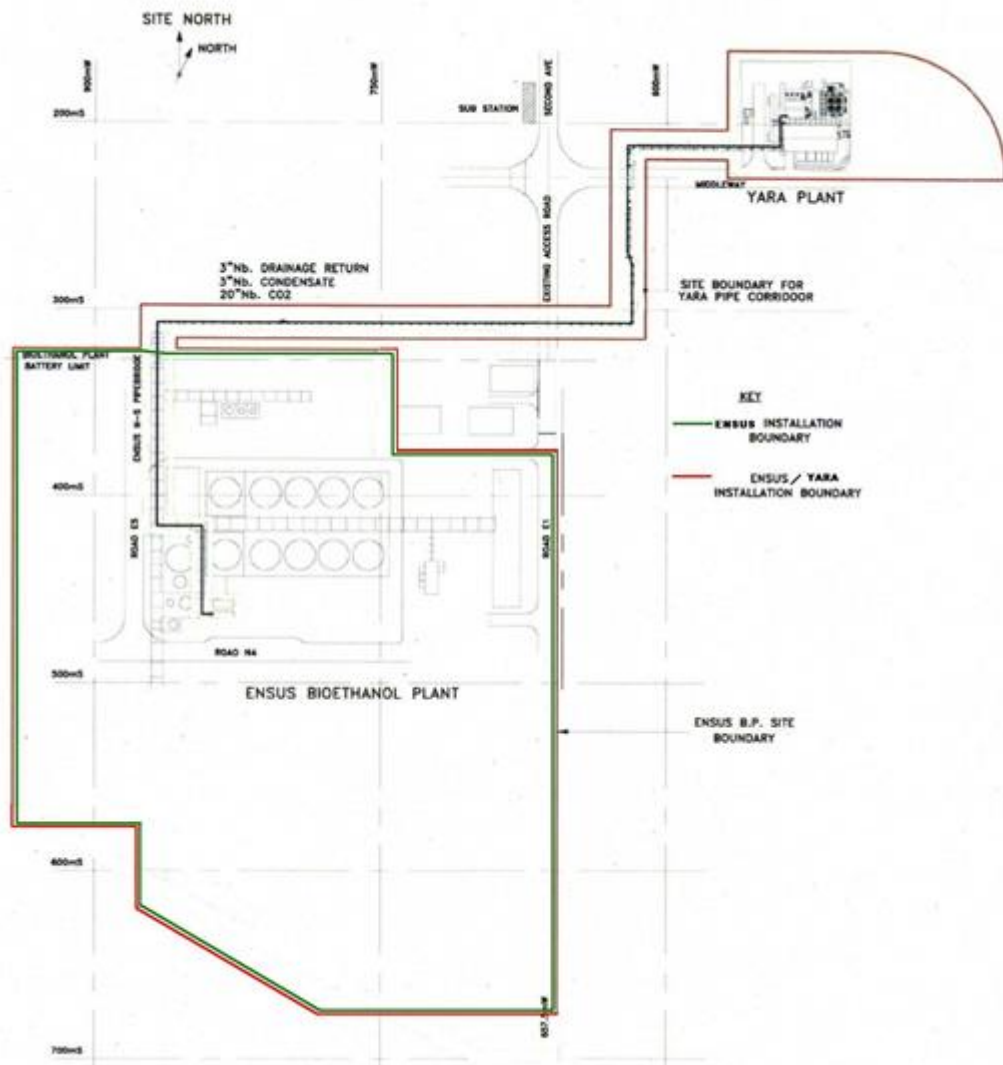
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration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

“RTO trip” means any period when an RTO is bypassed for any reason or when the combustion chamber temperature falls below 750°C

“year” means calendar year ending 31 December.

Schedule 7 – Site plan





END OF PERMIT

Permit Number: EPR/VP3831XJ

Operator: Ensus UK Limited

Facility: Wilton Bioethanol Plant Form Number: Air1 16/02/22

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A1							
A2							
A3							
A4							
A5							
A6							
A7							
A8							

1. The result given is 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, the result is given as the 'minimum – maximum' measured values.
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.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/VP3831XJ

Operator: Ensus UK Limited

Facility: Wilton Bioethanol Plant Form Number: Water1 16/02/22

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
W1							

1. The result given is 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, the result is given as the 'minimum – maximum' measured values.
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.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/VP3831XJ

Operator: Ensus UK Limited

Facility: Wilton Bioethanol Plant Form Number: WaterUsage1 16/02/22

Reporting of Water Usage for the year YYYY

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)	Trends in Mains Water Usage		
			Year	Total Water Usage	Specific Usage (m ³ /unit output)
Mains water					
Site borehole					
River abstraction					
Other (specify)					
TOTAL WATER USAGE					

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: EPR/VP3831XJ

Operator: Ensus UK Limited

Facility: Wilton Bioethanol Plant Form Number: Energy1 16/02/22

Reporting of Energy Usage and Energy Efficiency for the year YYYY

Energy Source	Quantity Used	Primary Energy Usage (MWh)	CO2 produced (tonnes)
Electricity*	MWh		
Natural gas	t		
Diesel	t		
Other (Specify)	t		
Total	--		

* Conversion factor for delivered electricity to primary energy = 2.4

Year	Production (tonnes)	Primary Energy usage (MWh)	Total Primary Energy usage per unit output (MWh/t)	Primary Energy Electricity Usage per unit output (MWh/t)	Primary Energy Gas Usage per unit output (GJ/t)*	CO2 produced (tonnes)	CO2 tonnes per tonne unit output

* Energy in natural gas conversion factor used = (GJ/t)

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)