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Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Brocklesby Limited

North Cave FAME Plant Brocklesby House Crosslands Lane North Cave East Yorkshire HU15 2PG

Variation application number

EPR/JP3931SG/V006

Permit number

EPR/JP3931SG

North Cave FAME Plant Permit number EPR/JP3931SG

Introductory note

This introductory note does not form a part of the notice

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

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

This variation allows the following changes:

- Increase in the waste storage capacity from approximately 3000m³ to a maximum of 6000m³,
- Increase of annual waste treatment capacity,
- Addition of Two New Waste Codes,
- Removal of Hazardous Waste Treatment Operations,
- Replacement of Boilers

This increase will be achieved by replacing some of the old waste storage tanks (1400m³) but also by adding a new waste storage area with a capacity of 3000m³. Sixteen 150 tonne tanks, each 3.8m in diameter and 14.5m in height and four 500 tonne tanks, each 8m in diameter and 10m in height will be added. As a result, the waste treatment capacity of the site will increase from 95,000tpa to 225,000tpa. The waste treatment techniques will remain the same as before this variation.

Two new waste streams will be accepted on site. The following two EWC have been added to 19 02 10 and 19 08 09. Hazardous waste treatment activities are no longer practised and the permitted hazardous waste code, 07 01 01*, has been removed from table S2.2.

The old oil fired boilers will also be replaced with two gas fired boilers with a thermal input of 8 MWth each. These new boilers will incorporate improved energy efficiency and environmental performance measures, including installation of flue gas economisers to recover heat, variable speed drives (VSD) on pumps, a reverse osmosis (RO) plant, condensate recovery system, and steam, gas and water meters to be fitted to monitor utility usage.

Description of the site

Brocklesby Ltd reprocess recovered oils and fats originating from a variety of sources to produce either technical oils for use in the chemical industry or biofuel (fatty acid methyl ester (FAME)). The site grid reference is NGR SE 88124 32281.

The Schedule 1 activity undertaken at this installation is:

Section 4.1 A (1) a) (ii) for production of esters with a total process capacity of 50,000tpa.

There is also one waste operation:

Non-hazardous waste recovery activity with a total process capacity of 225,000tpa.

Wastes are heated to achieve separation of oils from the non-oil and water component of the wastes. Physical treatment is carried out via centrifuging of heated wastes to further accelerate separation of oils and non-oil component/water fraction. The chemical treatment carried out is pH correction, where sulphuric acid is added to the liquid food wastes and then centrifuged to achieve final separation of the oil and non-oil fraction and water mix. At this stage, the fractions are either sold/sent offsite or the oil element arising from this chemical treatment process is then further processed in the onsite acid esterification plant. Here, wastes

are processed with sulphuric acid and methanol to convert the fatty acids to methyl esters and leaving the triglycerides as is. Once the fatty acids have been processed the material is suitable for use as a biodiesel.

Wastes from the Brocklesby FAME Plant site are sent as pumpable liquid feedstock to the adjacent Brocklesby AD Plant by underground pipeline.

Humber Estuary (SAC, SPA, Ramsar) is located 5.5km from the site.

The schedules specify the changes made to the permit.

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

Status log of the permit	Status log of the permit		
Description	Date	Comments	
Application JP3931SG (EPR/JP3931SG) received	14/08/05		
Request for further information by email (ASR Zones, conceptual site model, Table D3A, revised site plans)	Responses dated 14/02/06, 21/02/06		
Request for further information by email (LAPC authorisation issue date, boiler blow down, number of tanks on site, RVO boiler scrubber effluent pathway)	Responses dated 01/03/06, 02/03/06		
Request for further information by email (revised installation boundary, total number of tanks on site with associated identification numbers)	28/03/06		
Permit determined	08/05/06		
Variation application PP3631CE (EPR/JP3931SG/V002)	Duly made 11/09/12		
Schedule 5 dated 14/09/12	Response 25/10/12		
2 nd Schedule 5 dated 07/11/12	Response 07/12/12		
Final clarifications on waste quantities and A1 exact flow	18/12/12		
Variation determined EPR/AP3834FZ/V002 (varied and consolidated permit issued)	19/12/12		
Variation application HP3636NM (EPR/JP3931SG/V003)	Withdrawn 02/08/13		
Variation application EPR/JP3931SG/V004	Duly made 29/01/16	Variation to add waste codes	
Determined EPR/JP3931SG/V004	15/02/2016	Variation issued	
Part surrender application EPR/JP3931SG/S005	Duly made 17/11/17		
Additional information received	09/02/18	Response to Schedule 5 Notice dated 05/01/18	

Status log of the permit		
Description	Date	Comments
Part surrender determined EPR/JP3931SG	26/02/18	Part surrender complete
Application EPR/JP3931SG/V006 (variation and consolidation)	Duly made 26/06/21	Application to increase storage capacity, add waste codes, replace boilers and update the permit to modern conditions.
Variation determined and consolidation issued EPR/JP3931SG	08/09/22	Varied and consolidated permit issued in modern format
Billing number: SP3635QV		

Other Part A installation permits relating to this installation			
Operator Permit number Date of issue			
Brocklesby Biogas Limited	EPR/JP3435DN	06/12/17	

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/JP3931SG

Issued to

Brocklesby Limited ("the operator")

whose registered office is

Brocklesby House Crosslands Lane North Cave East Yorkshire HU15 2PG

company registration number 03333029

to operate a regulated facility at

North Cave FAME Plant Brocklesby House Crosslands Lane North Cave East Yorkshire HU15 2PG

to the extent set out in the schedules.

The notice shall take effect from 08/09/2022

Name	Date
Philip Lamb	08/09/2022

Authorised on behalf of the Environment Agency

Schedule 1

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

Schedule 2 - consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/JP3931SG

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/JP3931SG/V006 authorising,

Brocklesby Limited ("the operator"),

whose registered office is

Brocklesby House Crosslands Lane North Cave East Yorkshire HU15 2PG

company registration number 03333029

to operate an installation at

North Cave FAME Plant Brocklesby House Crosslands Lane North Cave East Yorkshire HU15 2PG

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

Name	Date
Philip Lamb	08/09/2022

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.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme [or other approval issued by the Environment Agency].

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 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 For the following activities referenced in schedule 1, table S1.1 the operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities:
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
 - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

- (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 For the following activities referenced in schedule 1, table S1.1 waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 For the following activities referenced in schedule 1, table S1.1 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 Waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2 table S2.2, and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 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.
- 2.3.6 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.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to air, water or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 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 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.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1, S3.2 and S3.3.

- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
 - (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

- (i) off-site environmental effects; and
- (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1 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.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste.

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 "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1	Table S1.1 activities				
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types		
AR1	Section 4.1 A(1) (a) (ii)	Production of esters	Receipt of raw materials and waste inputs only from AR4 activities to despatch of finished product, including storage and handling of raw materials, intermediates, finished products and waste.		
			Total process capacity is limited to 50,000 tonnes per annum.		
Directly As	sociated Activity				
AR2	Abatement system	Abatement systems for controlling odour	Receipt of odorous air from process activities to exhaust to atmosphere		
AR3	Production of steam	16MWth boilers for steam production	Receipt, storage and treatment of boiler feed water, receipt of standby fuel (kerosene). Operation of installed boilers and associated equipment; distribution of steam		
AR4	Treatment of waste	Treatment of non- hazardous oil and fat wastes via heat and physical treatment before used in esterification plant	Receipt, storage, and pre-treatment Non- hazardous waste types as specified in Table S 2.2. The total non-hazardous waste input for installation processes is 50,000 tonnes per annum.		
AR5	Uncontaminated water management	Collection, storage, and discharge of uncontaminated Water	Collection of surface water in from the site area, storage, and discharge of clean water via emission point W1.		
AR6	Boiler blowdown water management	Storage and discharge of boiler blowdown water to sewer	Storage and discharge of boiler blowdown water to foul sewer via emission point S2.		
AR7	Storage of raw materials	Storage of raw materials	Storage of raw materials used in the esterification plant operations, for chemical treatment of wastes, and for lab analysis activities at the site.		
Activity reference	Description of activitie operations	es for waste	Limits of activities		
AR8	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) R3: Recycling/reclamation of organic substances which are not used as solvents		The storage and treatment operations shall be limited to waste specified in Table S2.2. The treatment operations permitted on site are heat treatment, physical treatment including screening, pH correction. The total annual non-hazardous waste processing capacity is 225,000tpa (including waste processed in the esterification plant). The maximum combined storage quantity is 6000m ³ .		

Table S1.2 Operating technic	- 	T	
Description	Parts	Date Received	
Application JP3931SG (EPR/JP3931)	The response to questions 2.1, 2.2, 2.3 and 2.5 given in the Application.	14/08/05	
Response to request for information by email (request dated 8/02/06)	Responses received (ASR Zones, conceptual site model, Table D3A, revised site plans)	14/02/06, 21/02/06	
Response to request for information by email (request dated 28/02/06)	Responses received (LAPC authorisation issue date, boiler blow down, number of tanks on site, RVO boiler scrubber effluent pathway)	01/03/06, 02/03/06	
Response to request for information by email (request dated 24/03/06)	Responses received (revised installation boundary, tank identification numbers)	28/03/06	
Application EPR/JP3931SG/V002	Substantial Variation supporting documents and Updated Site Condition report	Duly made 11/09/12	
Application EPR/JP3931SG/V002	All duly made responses	11/09/12	
Responses to Schedule 5, dated 14/09/12	All responses	25/10/12	
Responses to second Schedule 5, dated 07/11/12	All including updated versions of Odour Management Plan, Process Flows with relevant EWC waste code inputs, Waste acceptance procedures and updates to Accident Management Plan.	07/12/12	
Additional information	Final A1 extract flow for odour abatement and waste input quantities	18/12/12	
Application	Risk assessment document provided in response to section to section 6 of Part C2 of the application forms	26/06/21	
	The following documents provided in Part C3 of the application forms:		
	- Waste Types to be Accepted document as response to section 1;		
	- Fugitive Emissions Management Plan, Odour Management Plan, Noise Management Plan and List of raw materials as response to section 3;		
	- Emission points monitoring as response to section 4;		
	Measures to Demonstrate BAT and Accident Management Plan as response to section 6.		

Table S1.3	Table S1.3 Improvement programme requirements		
Reference	Requirement	Date	
IC14	The operator shall provide a report on the results of weekly monitoring from W1 surface water emissions during new facility commissioning phase. The monitoring shall cover a minimum of three months of operation. The parameters to include as a minimum methanol, suspended solids, COD and pH.	Completed	
	The overall purpose is to demonstrate effective fugitive management controls to prevent process discharges to W1; as such the operator should provide working limits for these parameters.		
	The report shall provide a summary of results, conclusions of fugitive management controls effectiveness and any further improvements to optimise such controls.		
	The Environment Agency shall provide written approval of working limits for above parameters.		
IC 15	The operator shall provide a commissioning report detailing updates to following plans based on actual commissioning experience of new chemical facilities:	Completed	
	Site Protection Checks and Procedures.		
	Accident Management Plans.		
IC16	The Operator shall carry out a noise assessment for complete facilities linked to new process in accordance with the requirements of BS4142: 1997 – Method for Rating Industrial Noise affecting mixed Residential and Industrial Areas. The assessment shall include impact of operations during daytime and night-time periods, in comparison with estimated noise impact within application EPR/JP3931SG/V002. The assessment shall include frequency measurement and reporting of 1/3 octave bands averaged over each measurement periods. A report summarising the outcome of the assessment, including a timetable for the implementation	Completed	
	of any improvements identified, shall be submitted to the Environment Agency.		
IC17	The Operator shall put in place a computerised preventative maintenance system and input all inspection and maintenance tasks for new chemical esterification facility.	Completed	
IC18	The Operator shall put in place a computerised preventative maintenance system and input all inspection and maintenance tasks for existing operations including the Double Green production area, Boiler House, Tank Farms, A1 Caustic Scrubber and plant within the Factory Building.	Completed	
IC19	The Operator shall, having regard to Environment Agency Guidance Note IPPC H4 Odour under Control Measures and Monitoring, verify the effectiveness of the measures in place for all operations to minimise potentially odorous emissions from the Permitted Installation.	Completed	
	The operator shall on the basis of the above assessment provide an updated Odour Management Plan based on commissioning experience.		
	The report shall provide a timetable for the implementation of any improvements identified.		
IC20	The Operator shall undertake air emission monitoring (method to be agreed in writing with the Agency) of oxides of nitrogen and carbon	08/11/22	

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	monoxide from emission points A2 and A3, as defined in table S3.1. The monitoring schedule shall be designed to provide data representative of typical and worst case operating conditions. As a minimum the monitoring will be for the duration of one day shift and shall be repeated for two such shifts and shall include measurement of concentration and efflux velocity.	
	The Operator shall submit a written report to the Agency for approval, detailing the monitoring undertaken and results obtained, and contain a comparison with, and justification for, the data used in the Operators Air Quality Assessment, Reference: 4089r2, submitted with variation application EPR/JP3931SG/V006.	

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
1	New Tank Farm	The operator shall submit a report demonstrating that all bulk liquid storage tanks, pipelines and secondary containment in Tank Farm have been leak-tested at least 4 weeks before the start of operations.

Schedule 2 – Waste types, raw materials and fuels

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

Maximum quantity	Annual throughput shall not exceed 225,000 tonnes.	
. ,	Waste storage quantity shall not exceed 6000m³ at any one time.	
Waste code	Description	
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin	
02 02 01	sludges from washing and cleaning	
02 02 03	materials unsuitable for consumption or processing	
02 02 04	sludges from on-site effluent treatment	
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation	
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation	
02 03 04	materials unsuitable for consumption or processing	
02 03 05	sludges from on-site effluent treatment	
02 05	wastes from the dairy products industry	
02 05 01	materials unsuitable for consumption or processing	
02 05 02	sludges from on-site effluent treatment	
02 06	wastes from the baking and confectionery industry	
02 06 01	materials unsuitable for consumption or processing	
02 06 03	sludges from on-site effluent treatment	
07	Wastes from organic chemical processes	
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals	
07 01 99	wastes not otherwise specified (limited to soap wastes from the manufacture of biodiesel)	
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	
15 02	absorbents, filter materials, wiping cloths and protective clothing	
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 (limited to diatomaceous earth filter cake containing biodiesel)	
16	Wastes not otherwise specified in the list	

Table S2.2 Permitted	waste types and quantities
Maximum quantity	Annual throughput shall not exceed 225,000 tonnes. Waste storage quantity shall not exceed 6000m³ at any one time.
Waste code	Description
16 10	aqueous liquid wastes destined for off-site treatment
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 08	wastes from waste water treatment plants not otherwise specified
19 08 09	Grease and oil mixture from oil/water separation containing only edible oils and fats
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 25	Edible oil and fat

Schedule 3 – Emissions and monitoring

Emission point	Source	Parameter	Limit	Reference	Monitoring	Monitoring
ref. & location			(including unit)	period	frequency	standard or method
A1 [Point A1 on site plan in Schedule 7]	Caustic Odour Scrubber	No parameters	No limit	_	-	-
A2 [Point A2 on site plan in Schedule 7]	Boiler Plant	Sulphur Dioxide (SO2)	No limit	_	Once per year	EN 14791
		Oxides of Nitrogen	100 (mg/Nm³)	Annually	Once per year	EN 14792
		Carbon Monoxide (CO) ¹	No limit	Annually	Once per year	EN 15058
A3 [Point A3 on site plan in Schedule 7]	Boiler Plant	Sulphur Dioxide (SO2)	No limit	_	Once per year	EN 14791
		Oxides of Nitrogen	100 (mg/Nm³)	Annually	Once per year	EN 14792
		Carbon Monoxide (CO) ¹	No limit	Annually	Once per year	EN 15058
A4 [Point A4 on site plan in schedule 7]	Esterification process emissions via vapour absorber	No parameters	No limit	-	-	-
A5 [Point A5 on site plan in schedule 7]	Esterification process raw material and product tank vent	No parameters	No limit	-	-	-
A6 [Point A6 on site plan in schedule 7]	Esterification process raw material and product tank vent	No parameters	No limit	-	-	-
A7 [Point A7 on site plan in schedule 7]	Tank Farm Displaced Air Carbon Filter Vent	No parameters	No limit	_	_	-
A8 [Point A8 on site plan in schedule 7]	Tank Farm Displaced Air Carbon Filter Vent	No parameters	No limit	_	-	-
A9 [Point A9 on site plan in schedule 7]	Tank Farm Displaced	No parameters	No limit	-	-	-

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
	Air Carbon Filter Vent					
A10 [Point A10 on site plan in schedule 7]	Tank Farm Displaced Air Carbon Filter Vent	No parameters	No limit	-	-	-
A11 [Point A11 on site plan in schedule 7]	Vent from Process Shed Extraction System	No parameters	No limit	-	-	-
A12 [Point A12 on site plan in schedule 7]	Vent from Process Shed Extraction System	No parameters	No limit	-	-	-

^{1.} No ELV is applied to CO. As an indication, the CO emission level will generally be less than 150 mg/Nm 3 .

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on site plan in		Fat and oils	None present	Monthly	Weekly and on release	Visual inspection
schedule 7 fugitive process Swale emissions.		pН	5-9	Instantaneous	Weekly and on release	BS ISO 10523
		TSS	60 mg/ml	For 95% of all measured values of periodic samples taken over one month		BS EN 872
		COD	180 mg/l	Monthly average	Weekly and on release	BS ISO 15705

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site- emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7 emission to foul sewer Yorkshire Water	Non-process liquors consisting of domestic waste waters only	No parameters	No limit	-	-	-

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

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S2 on site plan in schedule 7 emission to foul sewer Yorkshire Water	Boiler Blowdown discharge	No parameters	No limit	_	_	

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	A2 and A3	Every 12 months	1 January	
Point source emissions to water (other than sewer)	W1	Every 6 months	1 January, 1 July	
Parameters as required by condition 3.5.1				

Table S4.2: Annual production/treatment		
Parameter	Units	
-	_	

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Water usage	Annually	m^3	
Energy usage	Annually	MWh	
Report on W1 emission fugitive management plan compliance.	Quarterly	_	

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

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				
	iny malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is 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			

Parameter(s)

Limit

Emission point reference/ source

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 t	he breach of per	mit conditions not related	d to limits	
To be notified within 24 hours of det	ection			
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 submit		n as practicable)	
notification under Part A.				
Measures taken, or intended to be taken, to prevent a recurrence of the incident				

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

^{*} authorised to sign on behalf of the operator

Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

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

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

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

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

"List of Wastes" means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"recovery" means any of the operations provided for in Annex II to the Waste Framework Directive.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

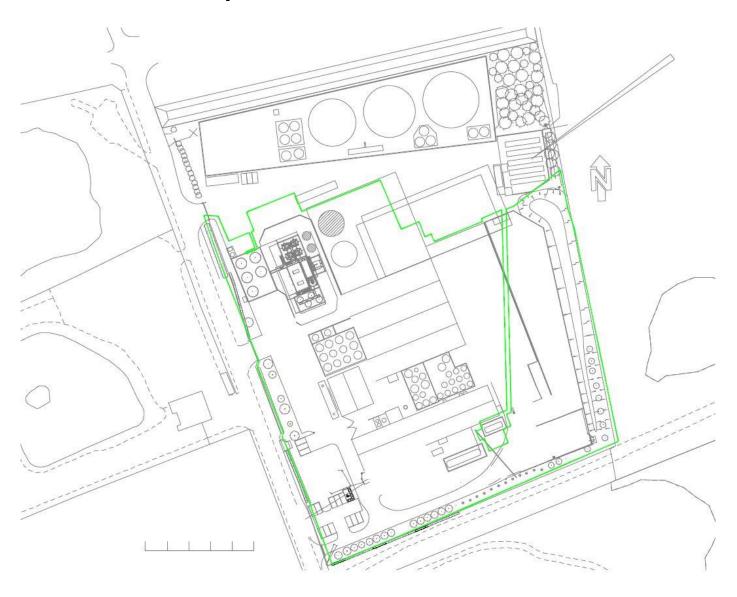
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

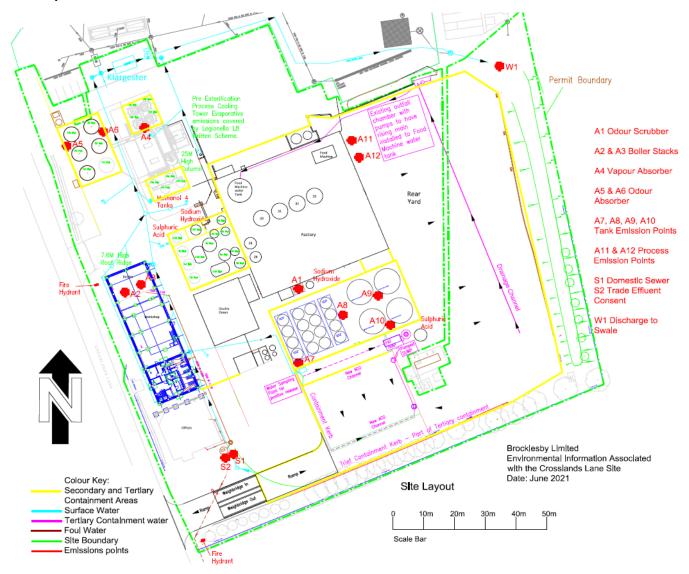
 in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

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 "year" means calendar year ending 31 December.

Schedule 7 – Site plan



Emission points



END OF PERMIT

Permit number EPR/JP3931SG