Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Archer Daniels Midland Erith Limited

Erith Oil Works
Church Manorway
Erith
Kent
DA8 1DL

Variation application number

EPR/QP3331PQ/V004

Permit number

EPR/QP3331PQ

Erith Oil Works
Permit number EPR/QP3331PQ

Introductory note

This introductory note does not form a part of the notice

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

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

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

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

The schedules specify the changes made to the permit.

The main features of the permit are as follows.

The Erith Oil Works installation is situated at National Grid Reference (NGR) TQ 50590 79332. To the east the site is adjacent to the southern bank of the River Thames, the rest of the site is bordered by industrial properties. The nearest residential area is approximately 400m to the south/southwest.

The site has a capacity of 1.4M tonnes per year and processes rapeseed to produce rapemeal for feedstuffs (ca. 784,000 t/yr) and edible oils (616,000 t/yr). In addition, the installation also receives imported crude and refined vegetable oil for storage, prior to its transfer to an adjacent site for bottling, or for being processed on site. The rapeseed and oils are imported via road, ships and barges and are delivered to storage tanks and silos. On rare occasions customer rejected product can be returned to the installation for rework or downgrading of the product for resale.

From storage, the seed is pre-treated by sieving, then flaked in flaking rolls to rupture the oil cells. The flake is then preheated in the Rotating Tube Conditioner (RTC), then pressed in the screw presses; pressed cake is conveyed into the Solvent Extraction Plant and the pressed oil is sent to the decanters and then into storage. The solvent extraction plant is designed to remove the remaining oil from the pressed cake and process the spent cake into animal feedstuffs. The extracted crude vegetable oil is sent to storage and further processing. The “crude” vegetable oil is degummed before entering the refining process to separate phosphates and gums. The refining process purifies the oil by removing free fatty acids and soaps. The oil then passes through a process known as bleaching, prior to the deodorising process to improve the taste, odour, colour and stability of the oil by removing volatile substances. The oil is then stored for transportation or sold to the nearby adjacent bottling plant.

For the operation of the installation, four medium combustion plants are used with a combined capacity of approximately 86.2 MWth comprising of three gas turbines (GTs) of 28 MWth each and a Boiler of 2.2 MWth. The flue gases resulted from the combustion of natural gas are released to the atmosphere via air emission points A1, A2 and A3 for the GTs, and A21 for the Boiler. Other air emission points are A8, A9, A10, and A14 through which dust is being released into the atmosphere; emission points A8, A9, A10, are abated via bag filters and A14 emissions are abated via the biobeds. Emissions are also released from the thermal oxidiser abatement via air emission point A28, which include ELVs for VOCs, H2S, SO2, and CO.

Wastewater generated during production processes and cleaning but also from the adjacent bottling plant is treated on-site in the effluent treatment plant which discharges treated process effluent to sewer via discharge

point S1, under consent from Thame Water. Other discharge points are W1 through which uncontaminated water and cooling water is discharged to River Thames, and W2 discharging uncontaminated surface water run-off to a pond located outside the installation's boundary.

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

Status log of the permit		
Description	**Date**	**Comments**
Application received EPR/QP3331PQ /A001	Duly made 18/04/2005	Application received for the treatment and processing oilseeds.
Request for information	26/07/2005	Received 01/09/2005
	20/09/2005	Received 29/09/2005
	13/12/2005	Received 16/12/2005
Application variation determined EPR/QP3331PQ	21/12/2005	Permit issued to Archer Daniels Midland Erith Limited.
Agency variation determined EPR/QP3331PQ/V002	02/12/2013	Agency variation to implement the changes introduced by IED.
Application EPR/QP3331PQ/V003 (variation and consolidation)	Duly made 21/06/2021	Application to update the permit to include changes that have taken place on site and inclusion of a new thermal oxidiser and scrubber for odour abatement.
Request for information	16/06/2022	Additional detail to support odour management plan.
Variation determined and consolidation issued EPR/QP3331PQ	16/12/2022	Varied and consolidated permit issued in modern format.
Application EPR/QP3331PQ/V004 (variation and consolidation)	Regulation 61 Notice response received 28/10/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Request for information (dated 12/05/2023)	06/06/2023	EMS ISO 14001 accreditation, dust emission points and abatement technologies used, wastewater buffer capacity, noise minimisation techniques, hexane mass balance equation, biobeds, cooling towers, site plan, non-technical description.
Request for information (dated 12/06/2023)	20/06/2023	Hexane mass-balance uncertainties, waste gases characterisation, odour emissions targets.
Request for information (dated 21/06/2023)	21/06/2023	MCPs capacity, auxiliary vacuum, biobeds efficiency.
Variation determined and consolidation issued EPR/QP3331PQ	05/09/2024	Varied and consolidated permit issued in modern format.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/QP3331PQ

Issued to

Archer Daniels Midland Erith Limited ("the operator")

whose registered office is

Erith Oil Works
Church Manorway
Erith
Kent
DA8 1DL

company registration number 00159486

to operate a regulated facility at

Erith Oil Works
Church Manorway
Erith
Kent
DA8 1DL

to the extent set out in the schedules.

The notice shall take effect from 05/09/2024.

Name	Date
Sandra Cavill	**05/09/2024**

Authorised on behalf of the Environment Agency

Schedule 1

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

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/QP3331PQ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/QP3331PQ/V004 authorising,

Archer Daniels Midland Erith Limited ("the operator"),

whose registered office is

Erith Oil Works
Church Manorway
Erith
Kent
DA8 1DL

company registration number 00159486

to operate an installation at

Erith Oil Works
Church Manorway
Erith
Kent
DA8 1DL

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

Name	Date
Sandra Cavill	**05/09/2024**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

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

1.2 Energy efficiency

1.2.1 The operator shall:

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

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

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

1.3 Efficient use of raw materials

1.3.1 The operator shall:

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

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

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

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

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

1.4.1 The operator shall take appropriate measures to ensure that:

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

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

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

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

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

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

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

2.3.4 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.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

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

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

3.1.4 For the following activities referenced in schedule 1, table S1.1 (AR2, Gas Turbines 1, 2, and 3) the first monitoring measurements shall be carried out within four months of 01/01/2025 and (AR2 Boiler 1) 01/01/2030 or of the date when the MCP is first put into operation, whichever is later.

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

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

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

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

3.3 Odour

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

3.3.2 The operator shall:

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

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

3.4 Noise and vibration

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

3.4.2 The operator shall:

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

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

3.5 Monitoring

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

(a) point source emissions specified in tables S3.1, S3.2 and S3.3.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

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

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 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.

4.2.6 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

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

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

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

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

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

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

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

4.4 Interpretation

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR1	Section 6.8 Part A(1)(d)(ii)	Treating and processing material intended for the production of food products from vegetable raw materials at a plant with a finished product capacity of more than 300 tonnes per day (average value on a quarterly basis).	From receipt of raw materials to dispatch of finished product, including seed preparation (pressing, extraction, distillation, degumming, desolventising and drying), refining (super degumming, caustic refining/neutralisation, bleaching, deodorisation, winterisation), and storage of crude and finished oils. Extraction of oil from rapeseed and refining of crude rapeseed oils. Use of hexane to extract remaining oil from pressed rapeseed and sediment and then subsequent separation and recovery of hexane to leave meal. Production capacity is limited to 3.865 tonnes per day.
AR2	Section 1.1 Part A(1)(a) Burning any fuel in an appliance with a rated thermal input of 50 MW or more.	Combustion of fuel to provide steam and heating for the process. Burning natural in combustion plant rated at combined thermal input of 86.2 MWth comprising: Gas turbine 1: 28 MWth Gas turbine 2: 28 MWth Gas turbine 3: 28 MWth Boiler 1: 2.2 MWth	From receipt of fuel to release of products of combustion to air.
AR3	Section 5.4 Part A1 (a) (ii)	Physico-chemical treatment of non-hazardous waste waters by dissolved air flotation.	From generation of waste water to onsite ETP treatment including of settlement, flotation, coagulation, and flocculation prior to discharge to Thames Water foul sewer.
Directly Associated Activity			
AR4	Raw material storage and handling	Storage and handling of raw materials at the installation	From receipt of raw materials to dispatch of final product.
AR5	Storage and use of chemicals and oils	Storage and use of chemicals and oils at the installation.	From receipt of chemicals and oils to disposal of wastes arising.

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**
AR6	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.
AR7	Process cooling waters	Operation of two cooling towers	From operation of cooling towers, including chemical dosing.
AR8	Surface water drainage	Collection of uncontaminated site surface waters	Handling and storage of site drainage until discharge to the site surface water system leading to River Thames.
AR9	Odour abatement	Collection and treatment of air from the buildings or plant using abatement system prior to release to atmosphere.	From the collection of air from site processes to treatment and release of treated air to atmosphere. Collection and treatment of air from the buildings or plant using abatement system – 6 x biofilters, thermal oxidiser and scrubber system.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions 2.1 and 2.2 and 2.10 given in pages 8 - 16, 19 - 20, 23 and 70 - 74.	21/04/2005
Application EPR/QP3331PQ/V002 (dated 18/06/2021)	Response to Section 3 – Operating Techniques, Part C3 of the application form, and supporting documents.	21/06/2021
Application EPR/QP3331PQ/V002	Odour Management Plan, March 2022 and additional detail response to S5 notice requesting additional information.	28/03/2022 13/07/2022
Regulation 61 (1) Notice – Responses to questions dated 08/06/2022	All parts	28/10/2022
Additional information (dated 12/05/2023)	Request for further information response including EMS ISO 14001 accreditation, dust emission points and abatement technologies used, wastewater buffer capacity, noise minimisation techniques, hexane mass balance equation, biobeds, cooling towers, site plan, non-technical description.	06/06/2023
Additional information (dated 12/06/2023)	Hexane mass-balance uncertainties, waste gases characterisation, odour emissions targets.	20/06/2023
Additional information (dated 21/06/2023)	MCPs capacity, auxiliary vacuum, biobeds efficiency.	21/06/2023

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC18	The operator shall complete a trial of up to 6 months in duration, to assess the implications of rerouting emissions from the odour abatement system OAS (emission point A10) to emission point A14. The operator shall inform the Environment Agency 3 week prior the commencement of the trial. Should the trial result in a significant increase in odour emissions the operator shall notify the Environment Agency and cease the trial with immediate effect. The trial shall recommence on agreement with the Environment Agency. Following the completion of the trial, the operator shall report the findings to the Environment Agency. The operator shall confirm any proposed changes and provide an H1 assessment, including proposed ELVs for approval.	Within 1 month of trial completion
IC19	The operator shall install an interceptor prior to discharge point W1. The Operator shall inform the Environment Agency when the works are complete.	05/09/2025 or other date as agreed in writing with the Environment Agency.
IC20	The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following: • Methodology applied for achieving BAT • Demonstrating that BAT has been achieved. The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 5 and 6. Refer to BAT Conclusions for a full description of the BAT requirement.	05/12/2024 or as agreed in writing by the Environment Agency
IC21	The operator shall submit, for approval by the Environment Agency an annual monitoring procedure two weeks before the monitoring program associated with improvement condition IC22 is due to start. The information shall contain, but not limited to, the following aspects: • Complete list of current emission points • Chosen emission points for the 2-day campaign monitoring program. • Monitoring methodology or standard used, reflective of BATc 5 requirements • Existing odour abatement techniques designed efficiencies.	05/09/2025 or other date as agreed in writing with the Environment Agency.
IC22	The operator shall submit a written report to the Environment Agency for approval following a 2-day intensive monitoring program (associated with IC 21) to review the substances with the potential of causing odour emissions and associated abatement techniques current efficiencies. The report shall include but not limited to the following aspects:	05/09/2025 or other date as agreed in writing with the

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• Full investigation and characterisation of the inlet and outlet gas streams for site abatement systems. • Abatement emissions monitoring results including odour concentrations (OUe/m3), GCMS monitoring results, TVOC, ammonia, SO2, H2S, and CO levels. • Details of site-specific “action levels”. • Proposed ELVs • Impact assessment and modelling for the proposed ELVs. • Recommendations for improvement including the replacement or upgrading of the abatement plant where appropriate. The report should also list all relevant contingency mitigation actions to minimise the risk of elevated odour pollution from the installation in abnormal operating periods e.g. plant breakdown and detail the actions to restore systems to normal operating conditions for effective odour control. The monitoring program shall be reviewed on an annual basis and the results communicated to the Environment Agency.	Environment Agency.
IC23	The Operator shall submit an updated Solvent Management Plan (SMP) to the Environment Agency for technical assessment and approval, demonstrating compliance against BAT 32 for the FDM industries. Further guidance on SMPs can be found on our website Solvent Management Plans: environmental permits - GOV.UK (www.gov.uk). The updated plan must include but not be limited to the following elements: • a protocol containing remediation actions and timelines; • a protocol for conducting solvent emissions monitoring; • a protocol for response to identified solvent loss events, e.g. fugitive emissions; • a protocol to reduce solvent mass-balance uncertainties; • a solvent reduction programme designed to identify the source(s), to measure/estimate solvent loss, to characterise the contributions of the sources and to implement prevention and/or reduction measures. The solvent management plan is required to be reviewed at least annually to ensure continued compliance against BAT 32 as described above. You must implement the plan as agreed, and from the date stipulated by the Environment Agency.	05/09/2025 or other date as agreed in writing with the Environment Agency.
IC24	The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point [A8, A9, A10, A12, and A14], identifying the fractions within the PM_{10} and $PM_{2.5}$ ranges. The monitoring shall be carried out under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency	05/09/2025 or other date as agreed in writing with the Environment Agency.
IC25	The operator shall produce a climate change adaptation plan, which will form part of the EMS. The plan shall include, but not be limited to: • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation;	05/09/2025 or other date as agreed in writing with the Environment Agency.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	
IC26	The Operator shall submit a monitoring plan to the Environment Agency for technical assessment and approval for the monitoring of gas (hexane) emissions from emission point A17 during the purging of the extractor fan. The monitoring plan shall include but not be limited to the following: • A detailed explanation as to how the monitoring of hexane will be undertaken. • Action taken to prevent the release of hexane into the environment. • Action taken when hexane is detected within the gas stream during the degassing of purge fan vent, including how quickly the process can be stopped should gas be detected. • How long the extractor fan will be put back into 'degassing/condensing mode' before purging takes place again. In addition to the above, a risk assessment shall also be provided for technical assessment and approval that demonstrates that the emission of limit of 2kg/hour associated with emission point A17 is not exceeded during purging events. The monitoring plan shall be reviewed on an annual basis and the results communicated to the Environment Agency. You must implement the plan as agreed, and from the date stipulated by the Environment Agency.	05/12/2024 or other date as agreed in writing with the Environment Agency.
IC27	The Operator shall submit a monitoring plan to the Environment Agency for technical assessment and approval for the monitoring of emissions (Particulate Matter and TVOC) from emission points A12 and A14. The monitoring plan shall include but not be limited to the following: • A detailed narrative of how the monitoring of particulate matter and TVOC from emission point A14 shall be undertaken, when deviating from the specified monitoring standards BS EN13284-1 and EN 12619 accordingly. • Where an alternative monitoring technique is proposed a detailed narrative on the how the samples will be collected and analysed accordingly. • Associated risk assessments/'Safe Systems of Work' for the proposed monitoring should also be provided for review. • A regular review of available monitoring techniques shall be undertaken to consider any future monitoring that allows the monitoring of Particulate Matter and TVOC's to be undertaken in accordance with the specified monitoring standards BS EN13284-1 and EN 12619. The monitoring plan shall be reviewed on an annual basis and the results communicated to the Environment Agency. You must implement the plan as agreed, and from the date stipulated by the Environment Agency.	05/12/2024 or other date as agreed in writing with the Environment Agency.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Gas oil	Less than 0.1% sulphur content

Table S2.2 Permitted waste types and quantities for treatment	
Maximum quantity	The total quantity of waste accepted at the site for the above activity shall be less than 3,000 m^3 per year.
Waste code	**Description**
16	Wastes not otherwise specified in the list
16.10	Aqueous liquid wastes destined for off-site treatment
16.10.02	Aqueous liquid wastes other than those mentioned in 16 10 01 – wastewater accepted from Edible Oils Limited only.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 [Point A1 on site plan in Schedule 7]	Gas turbine 1 28 MWth Natural gas fired	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	140 mg/m^3	Periodic	Biannual	BS EN 14792
		Carbon monoxide	No Limit	Periodic	Biannual	MCERTS BS EN15058
A2 [Point A2 on site plan in Schedule 7]	Gas turbine 2 28 MWth Natural gas fired	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	140 mg/m^3	Periodic	Biannual	BS EN 14792
		Carbon monoxide	No Limit	Periodic	Biannual	MCERTS BS EN15058
A3 [Point A3 on site plan in Schedule 7]	Gas turbine 3 28 MWth Natural gas fired	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	140 mg/m^3	Periodic	Biannual	BS EN 14792
		Carbon monoxide	No Limit	Periodic	Biannual	MCERTS BS EN15058
A6 [Point A6 on site plan in Schedule 7]	Seed unloader via bag filter	Particulate matter	50 mg/m^3	Periodic	Annually	BS EN13284-1
A8 [Point A8 on site plan in Schedule 7]	Raw seed screeners, dry ingredients store and bleaching filter aspiration via bag filter	Particulate matter	10 mg/m^3	Average over sampling period	Annually	BS EN13284-1
A9 [Point A9 on site plan in Schedule 7]	Flaking roll aspiration via bag filter	Particulate matter	10 mg/m^3	Average over sampling period	Annually	BS EN13284-1
A10 [Point A10 on site plan in Schedule 7]	Seed prep rotary tube conditioner and expellers via bag filter	Particulate matter	10 mg/m^3	Average over sampling period	Annually	BS EN13284-1
		TVOC	No limit set	30-minute average	Biannually	EN 12619

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**
A12 [Point A12 on site plan in Schedule 7]	Brake fan cake conveyor aspirator **[Note 5]**	TVOC	No limit set	30-minute average	Annually	EN 12619
		Particulate matter	10 mg/m^3	Average over sampling period	Annually	BS EN13284-1
A14 [Point A14 on site plan in Schedule 7]	Drying and cooling decks via biofilter **[Note 5]**	Particulate matter	20 mg/m^3	Average over sampling period	Annually	BS EN13284-1
		TVOC	No limit set	30-minute average	Annually	EN 12619
A16 [Point A16 on site plan in Schedule 7]	Talc storage vent via bag filter	Particulate matter	No limit set	--	--	--
A17 [Point A17 on site plan in Schedule 7]	Extraction purge fan vent **[Note 4]**	Hexane	2 kg/hour	Rolling monthly average	Annually	BS CEN/TS 13649 or as agreed in writing by the Environment Agency
A18a,b; A19a,b; A20a,b [Points A18a,b; A19a,b and A20a,b on site plan in Schedule 7]	Diesel driven emergency fire pumps number 1, 2 and 3	Combustion gases	No limit set	--	--	--
A21 [Point A21 on site plan in Schedule 7] **[Note 1]**	Boiler – high pressure 2.2 MWth Natural gas fired	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3	Periodic	Every three years	BS EN 14792
		Carbon monoxide	No limit set	Periodic	Every three years	MCERTS BS EN15058
A22 to A27 [Points A22 to A27 on site plan in Schedule 7]	Meal silos 1 to 12 aspiration vents via bag filters	Particulate matter	No limit set	--	--	--
A28 [Point A28 on site plan in Schedule 7]	Thermal oxidiser stack via wet scrubber **[Note 2]**	TVOC	50 mg/m^3	30-minute average	Biannually	BS EN 12619
		Carbon monoxide (CO)	50 mg/m^3	Hourly	Biannually	BS EN 15058

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**
		Sulphur dioxide (SO_2)	220 mg/m^3	Hourly	Biannually	BS CEN/TS 13649
		Hydrogen sulphide (H_2S)	100 mg/m^3	--	--	--
Installation	Installation overall	Hexane usage	0.65 kg loss per tonne of rapeseeds processed	Average over sampling period	Annually	As specified by Solvent Management Plan **[Note 3]**
Note 1: Emission limit and/or monitoring requirement are applicable from 01 January 2030, and after 500 operating hours have elapsed and no less frequent than every 5 years from date of acceptance of first monitoring measurements under condition 3.1.4. unless otherwise advised by the Environment Agency. Note 2: Subject to completion of improvement condition IC 22, revised and/or additional parameters and ELVs will be considered for emission points A12 and A28. Note 3: Subject to completion of improvement condition IC24 and written agreement of the Environment Agency. Note 4: Following completion of improvement condition IC 26 and written agreement of the Environment Agency. Note 5: Following completion of improvement condition IC 27 and written agreement of the Environment Agency.						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W1 on site plan in schedule 7 emission to River Thames	Uncontaminated surface run-off and cooling water	Temperature	30 ^{O}C	Spot sample	Monthly	--
		pH	6 – 9	Spot sample	Monthly	BS 6068-2.50
W2 on site plan in schedule 7 emission to pond	Uncontaminated surface water run-off	No parameter set	No limit set	--	--	--

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S1 [Point S1 on site plan in schedule 7] emission to Thames Water sewer	Treated process effluent from onsite effluent treatment plant	Sulphide	No limit set	Spot sample	Monthly	ISO 13358

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	**Particulate matter** A6, A8, A9, A10, A12, A14, A17	Every 12 months	1 January
	MCPD – Boiler A21	First monitoring undertaken in accordance with Condition 3.1.4 to be reported within 3 months, and then every 3 years thereafter.	From first monitoring requirements in accordance with Condition 3.1.4
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	W1	Quarterly	1 January, 1 April, 1 July & 1 October

Table S4.2: Annual production/treatment	
Parameter	**Units**
Production of crude rape oils from rapeseed	tonnes
Production of rape meal from rapeseed	tonnes
Total production of edible oils from crude rape	tonnes
Production of edible rape oils from crude rape oil	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Energy consumption per tonne of rapeseed input processed	Annually	MWh
Waste disposed and/or recovered per tonne of rapeseed input processed	Annually	tonnes
Waste disposal and/or recovery per tonne of total edible oils produced	Annually	tonnes
Hexane consumption per tonne of rapeseed input processed	Annually	t/t rapeseed input
COD loss efficiency	Annually*	COD te/te product
Food waste	Annually	tonnes
*COD efficiency to be calculated on a weekly frequency, reported annually.		

Table S4.4 Reporting forms		
Parameter	**Reporting form**	**Form version number and date**
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Food waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1 06/02/2023
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

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

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

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

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

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

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

“emissions to land” includes emissions to groundwater.

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

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

“Food waste” reporting: Reporting of food waste to use a methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard) , WRAP’s Target Measure Act initiative or similar.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“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.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW. An “existing medium combustion plant” is combustion plant operating before 20 December 2018.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Pests” means Birds, Vermin and Insects.

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

“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.

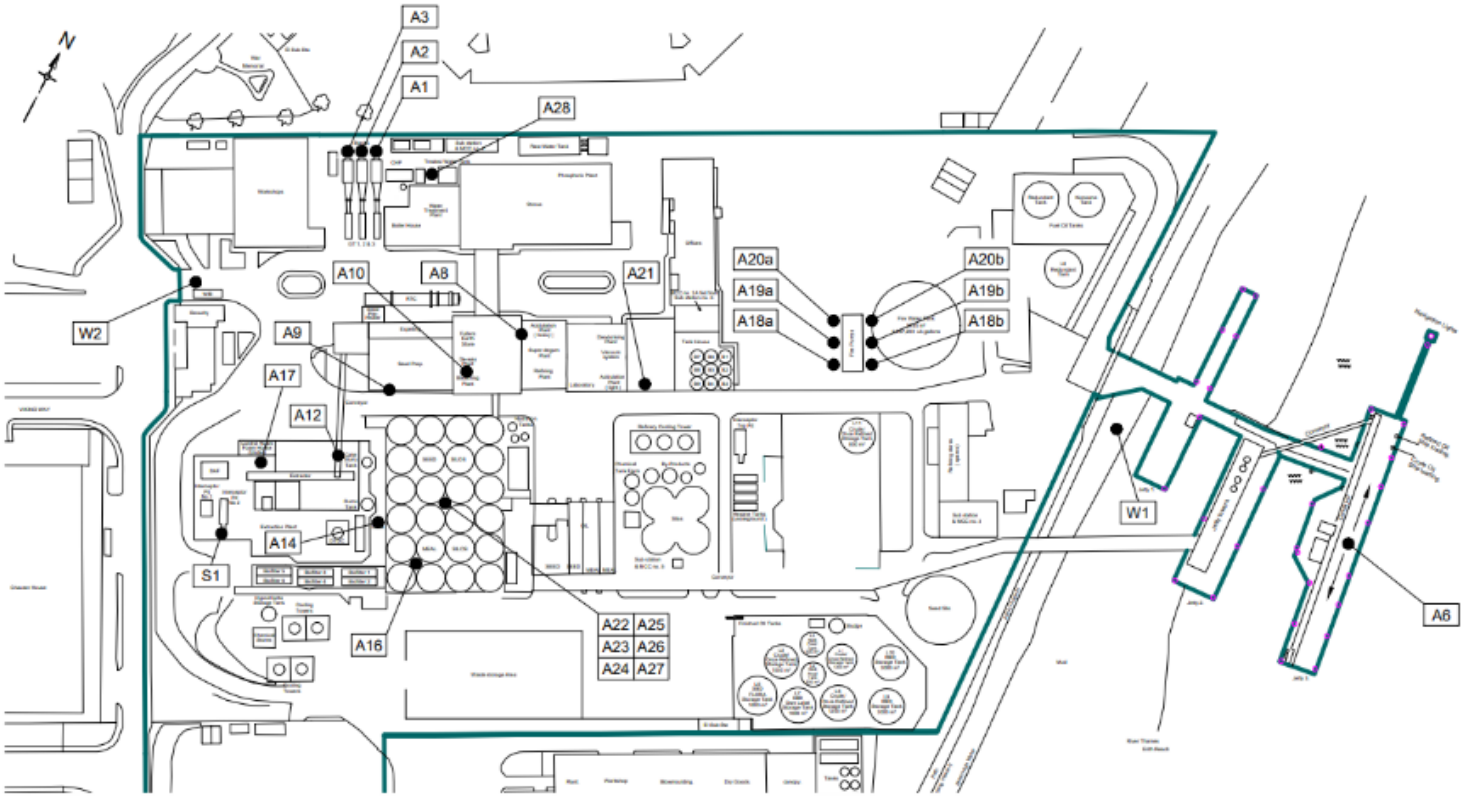
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- 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 other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

“year” means calendar year ending 31 December.

Schedule 7 – Site plan

Figure A6 - ADM Erith LTD Emission Points to Air, Sewer & Regulated Waters (River Thames)



TAG	ITEM	LOCATION
A1	GT 1 Gas Turbine & Waste Heat Boiler	CHP Boiler House
A2	GT 2 Gas Turbine & Waste Heat Boiler	CHP Boiler House
A3	GT 3 Gas Turbine & Waste Heat Boiler	CHP Boiler House
A6	Vigan Seed Unloader	Outer Jetty Vigan Unloader
A8	Raw seed processing	Penthouse Roof
A9	Flaking Roll Aspiration	Seed Prep.
A10	Seed Prep RTC Expellers	Seed Prep.
A12	Brake Fan Cake Conveyor Aspiration	Conveyor Tower (Extraction End)
A14	DC Main Stack	Extraction
A16	Talc Silo Aspiration Vent	Silos
A17	Extractor Purge Fan	Extraction
A18a	Fire Pump No 1 - Diesel Pump	Fire Pump House
A18b	Fire Pump No 1 - Diesel Pump	Fire Pump House
A19a	Fire Pump No 2 - Diesel Pump	Fire Pump House
A19b	Fire Pump No 2 - Diesel Pump	Fire Pump House

TAG	ITEM	LOCATION
A20a	Fire Pump No 3 - Diesel Pump	Fire Pump House
A20b	Fire Pump No 3 - Diesel Pump	Fire Pump House
A21	HP Steam Boiler - Refinery High Pressure Boiler	Refinery
A22	Meal Silos 1 and 2 aspiration vent	Silos
A23	Meal Silos 3 and 4 aspiration vent	Silos
A24	Meal Silos 5 and 6 aspiration vent	Silos
A25	Meal Silos 7 and 8 aspiration vent	Silos
A26	Meal Silos 9 and 10 aspiration vent	Silos
A27	Meal Silos 11 and 12 aspiration vent	Silos
A28	New Thermal Oxidiser Stack	CHP Boiler House
S1	Wastewater to sewer	Extraction Plant
W1	Launder Line - surface water	River Thames prior to Jetty
W2	Drain to Pond	Front of Site Workshops

TZ2-GEN-

END OF PERMIT