

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Cargill plc
45 Morley Street
Stoneferry
Kingston upon Hull
HU8 8DL

Permit number

EPR/ZP3931YU

45 Morley Street

Permit number EPR/ZP3931YU

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows:

Cargill plc, the operator, has applied for a bespoke EPR permit for their vegetable oil seed processing facility in Hull (NGR TA 10268 31023). The installation has previously operated under a Local Authority Part B authorisation (reference: EPA/6092/Rev5) however since the production capacity has exceeded 300 tonnes per day a Part A EPR permit is now required.

The installation is permitted for the following listed activity:

S6.1 Part A(1)(d)(ii) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging) – only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year.

The installation is also permitted for various directly associated activities (DAAs), these include: steam raising and heat generation, bulk seed storage, hexane storage, cooling activities, meal storage and product oil storage.

The on-site process operates as follows: seed is delivered at the installation daily by covered truck and is discharged into an intake pit awaiting conveyance to a storage silo or flat store. After storage, the seed is internally conveyed and undergoes conditioning, flaking and expelling. The expelling process involves the extraction of oil from flaked seeds. At this point two thirds of the oil content is removed from the seed, the remaining dry product is expeller cake which has an oil content of approximately 20%. The expeller cake then undergoes solvent extraction – this removes the residual oil through the application of hexane. The two products from this stage are solvent containing meal and full miscella – these are further treated via two different streams. The meal passes through a desolventiser toaster drier cooler to flash off the remaining hexane from the meal and toast it to improve palatability as animal feed. It is then dried off and cooled prior to storage in dedicated silos pending collection by third parties. Meanwhile, the miscella undergoes distillation and is pumped through a series of evaporators and heaters followed by a live steam stripper column and final high vacuum drying step to remove residual oil.

The hexane used in the process is recovered by condensation and absorption which is currently considered BAT as per the Food and Drink BREF. Hexane storage tanks and delivery discharge areas are fully bunded. This permit includes condition 4.2.5 which requires the operator to submit an annual solvent management plan to demonstrate compliance with the IED.

The final oil product is stored in one of the site's two tank parks. All oil storage tanks are subject to routine scheduled maintenance and are equipped with bunding and secondary containment.

There are six point source emissions to air. There is also a point source discharge to water – this is for process cooling water return to the River Hull. The site has historically discharged to the River Hull under an EPR Consent to Discharge (reference: WRA 7125) however they cannot currently discharge to the river due a suspension on discharge activities. The operator does, however, wish to discharge back to the river once the suspension of discharge activities is lifted. The exact same parameters and associated emission limits from the pre-existing consent have therefore been incorporated into this installation permit. Since Part A installations have to self-monitor, the discharge of process cooling water to the River Hull will not be permitted until pre-operational measure for future development 1 (POFD 1) has been complied with and the operator has submitted an appropriate monitoring regime to the Agency for approval. There is an additional point source discharge to sewer for which there is a trade effluent consent in place with Yorkshire Water.

There are sensitive human receptors within 50m of the site, there is also one Special Area of Conservation/Special Protection Area/Ramsar site and thirty-two Local Wildlife Sites within the relevant screening distances of the installation. All emissions from the installation have been assessed against the aforementioned sensitive human and ecological receptors and the potential impacts from all emissions have been found not to be significant.

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

Status log of the permit		
Description	Date	Comments
Application EPR/ZP3931YU/A001	Duly made 24/10/17	New bespoke application for a vegetable oil processing facility.
Additional information requested by Schedule 5 notice, dated 16/11/17	Received 08/12/17	Additional information regarding the odour management plan, trade effluent discharge consent, dust suppression systems, accidental releases, oil storage, secondary containment, solvent storage, risk assessment and hexane recovery systems.
	18/12/17	Site drainage plan.
	11/01/17	Odour management plan and fire mitigation measures.
Additional information requested by request for information email, dated 19/02/18	Received 16/03/18	Additional information regarding a revised site plan.
Permit determined EPR/ZP3931YU (PAS Billing ref. ZP3931YU).	26/03/18	Permit issued to Cargill plc.

End of introductory note.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/ZP3931YU

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Cargill plc (“the operator”),

whose registered office is

Velocity V1

Brooklands Drive

Weybridge

Surrey

KT13 0SL

company registration number 01387437

to operate an installation at

45 Morley Street

Stoneferry

Kingston upon Hull

HU8 8DL

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

Name	Date
Claire Roberts	26/03/2018

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 red on the site plan at schedule 7 to this permit.

2.3 Operating techniques

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

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

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 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.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

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

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period

specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

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

3.5 Monitoring

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

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

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

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

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

3.6 Pests

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

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

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 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	Limits of specified activity
AR1	S6.8 Part A(1)(d)(ii) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging) – only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year.	Vegetable oil seed processing.	From the receipt of vegetable oil seed and other raw materials to the manufacture of vegetable oil and the associated storage of the finished product.
Other activities under the EP Regulations			
AR1	Activities under Schedule 14 of the Environmental Permitting Regulations.	Extraction of residual oil from vegetable oil seed using hexane.	From receipt of raw materials to disposal of waste solvent. Total emission limit value not to exceed 1 kg/tonne (hexane consumed/seed processed).
Directly Associated Activity			
AR2	Bulk vegetable oil seed storage.	Storage of vegetable oil seed pending processing.	Storage of vegetable oil seed only within the dedicated seed storage silos and flat store.
AR3	Hexane storage.	Storage of hexane for use in the oil extraction process.	From the receipt of hexane to its use in the solvent extraction process. Storage only within the dedicated fully bunded hexane storage tanks which are located on an impermeable surface. Maximum storage quantity of hexane, at any one time, is not to exceed 120m ³ .
AR4	Steam raising and heat generation.	8 MWth (input) gas boiler.	From the receipt of fuel to the dispatch of steam and heat to the process.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR5	Meal storage.	Storage of meal by-product.	Storage only inside the dedicated meal silos.
AR6	Product oil storage.	Storage of finished oil product.	From the receipt of output oil product from the process to its dispatch off site. Storage only within the dedicated fully bunded oil storage tanks which are located on an impermeable surface.
AR7	Cooling activities.	Cooling towers.	From the use of abstracted water from the River Hull for process cooling activities to the discharge of process cooling water back to the River Hull via the emission point "2 – river water return" as shown on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18. Water is to be emitted to the River Hull in line with the parameters and associated emission limits outlined by table S3.2.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/ZP3931YU/A001	Responses to questions 3 of part B3 of the application form and the referenced supporting documentation: <ul style="list-style-type: none"> • Environmental management system summary; and • Best Available Techniques Assessment. 	16/06/17
Response to request for information letter, dated 08/09/17	Responses to question 4 detailing the accident management plan.	12/10/17
Response to Schedule 5 Notice dated 17/11/17	Responses to questions 1), 3), 4), 5), 6), 7), 8) and 11) of the Schedule 5 Notice questions regarding: <ul style="list-style-type: none"> • Dust suppression systems • Accidental releases of oil or hexane • Oil storage • Bunds and secondary containment • Solvent storage • Hexane recovery 	08/12/17
	• Site drainage plan	18/12/17
	• Odour management plan	11/01/18

Table S1.2 Operating techniques		
Description	Parts	Date Received
Response to request for information email, dated 19/02/18	<ul style="list-style-type: none"> Revised site plan 	16/03/18

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>Within 6 months of permit issue the operator shall ensure that a review of the design, method of construction and integrity of the site's secondary containment surrounding the bulk oil storage tanks, in the Morley Street and Gate 14 tank parks, is carried out by a qualified civil or structural engineer. The review shall compare the constructed secondary containment against the standards set out in CIRIA C736 – Containment Systems for the Prevention of Pollution – secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard or such other subsequent guidance as may be agreed in writing from the Environment Agency.</p> <p>The review shall include:</p> <ul style="list-style-type: none"> The physical condition of the secondary containment; The suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure; Any work required to ensure compliance with the standards set out in CIRIA C736 or other relevant industry standard; Timescales for any improvement necessary; and A preventative maintenance and inspection regime. <p>The written report of the review shall be submitted to the Environment Agency for approval including timescales for the implementation of any remedial works proposed. The operator shall implement the improvements to the approved timescales.</p>	24/09/18
IC2	<p>Within 6 months of permit issue, the operator shall undertake a review of the effectiveness of the installation's existing odour abatement technologies (prep odour scrubber and extraction odour scrubber).</p> <p>This review shall be carried out with reference to the Environment Agency's H4 Odour Management Guidance.</p> <p>The review shall include the following:</p> <ul style="list-style-type: none"> A characterisation of the constituent chemicals making up the exhaust gases which are to be treated by the scrubbers; The design capacity of each scrubber (Nm³/hr); The volumetric flow rate of the gas passing through each scrubber (Nm³/hr); A description of the chosen scrubber liquid and a justification as to why this is the best available for removal of unwanted odour in the exhaust gas; The circulation rate of the chosen scrubber liquid around the scrubber (litres/hr); The scrubber liquid exchange rate (litres/hr); A description of the packing media including detail on how often it is changed; 	24/09/18

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<ul style="list-style-type: none"> • The parameters at which the scrubber liquid is maintained (for example pH, temperature, total suspended solids); • What monitoring is undertaken to ensure that the scrubbers effectively remove odour; • Consideration of a surrogate parameter to provide a quantitative indication of scrubber effectiveness; and • A description of the optimum conditions under which the maximum amount of unwanted odour is removed from the gases by the existing odour abatement technologies. This should include such parameters as temperature, pH, Total Suspended Solids (TSS), liquid circulation rate. <p>On completion of the review, a written report shall be submitted to the Environment Agency for approval including details of the wet scrubbers, any deficiencies identified, any improvements proposed and the time scales for their implementation. The operator shall implement the improvements to the approved timescales.</p>	
IC3	<p>Within 6 months of permit issue, the operator shall provide a BAT review of the measures to prevent and minimise emissions from the site's uncontrolled (fugitive) sources of odour, as identified by the site's odour management plan.</p> <p>This review shall be carried out with reference to the Environment Agency's H4 Odour Management Guidance.</p>	24/09/18
IC4	<p>Within 14 months of permit issue, the operator shall undertake an environmental impact assessment for nitrogen oxide emissions from all combustion plants at the installation, using the information obtained through the emissions monitoring.</p> <p>The environmental impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review. As a minimum, two separate monitoring campaigns in a year shall be completed (one monitoring survey to be undertaken six months following issue of the permit).</p> <p>The environmental impact assessment shall include:</p> <ul style="list-style-type: none"> • Reports showing details of the monitoring undertaken and the results obtained; • Results of the assessment of long and short term impacts from the emissions in accordance with Environment Agency Guidance – Air emissions risk assessment for your environmental permit; and • An updated air dispersion modelling report. <p>In the event the process contribution exceeds 1% of the long term environmental standard and 10% of the short term environmental standard, the operator shall propose additional measures for reducing the impact of emissions of nitrogen oxides on human receptors.</p> <p>Where any improvements are identified, the operator shall submit proposals for their implementation including timescales to be agreed in writing by the Environment Agency. The operator shall implement the improvements to the approved timescales.</p>	27/05/19

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
POFD 1	Discharge of process cooling	The operator shall develop and implement a monitoring programme for the process cooling water released to the River Hull for the following parameters:

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
	water into the River Hull.	<ul style="list-style-type: none"> • Incremental biochemical oxygen demand (BOD); • Incremental ammoniacal nitrogen; • Incremental suspended solids; • Visible oil or grease; • Hexachlorocyclohexane (HCH)(gamma isomer); • Incremental temperature; • Volume of discharge; and • Rate of discharge. <p>The monitoring programme and associated methodologies shall be agreed in writing with the Environment Agency having regard to the Environment Agency M18 Guidance Note: Monitoring of discharges to water and sewer. The operator shall submit the collected monitoring data in writing to the Environment Agency according to agreed reporting periods.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Point marked “A” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Prep odour scrubber	Particulate matter	20 mg/m ³	Hourly average	Annually	BS EN 13284-1
Point marked “B” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Extraction odour scrubber	Particulate matter	20 mg/m ³	Hourly average	Annually	Indicative, non-isokinetic method (HSE MDHS Method 14 or similar)
Point marked “C” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Cooling towers – evaporation	No parameters set	No limit set	---	---	---
Point marked “D” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Extraction final vent from hexane recovery process	No parameters set	No limit set	---	---	---
Point marked “E” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Boiler flue	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	70 mg/m ³	Hourly average	Annually ^[Note 1]	BS EN 14792
Point marked “F” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Solvent extraction plant building fan vent	No parameters set	No limit set	---	---	---

Note 1: upon completion of IC4 the monitoring frequency requirements shall be annually.

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
Point marked "2: river water return" on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18	Cooling water return.	Incremental biochemical oxygen demand (BOD) [Note 1]	+ 40 mg/l			To be agreed upon completion of POFD 1
Point marked "2: river water return" on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18	Cooling water return.	Incremental ammoniacal nitrogen [Note 1]	+ 3 mg/l			To be agreed upon completion of POFD 1
Point marked "2: river water return" on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18	Cooling water return	Incremental suspended solids [Note 1]	+ 60 mg/l			To be agreed upon completion of POFD 1
Point marked "2: river water return" on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18	Cooling water return	Visible oil or grease	No significant trace present so far as is reasonably practicable			To be agreed upon completion of POFD 1
Point marked "2: river water return" on the drawing titled "Figure 2 Site Layout Plan Morley Street, Hull" – received 16/03/18	Cooling water return	Hexachlorocyclohexane (HCH)(gamma isomer)	1.5 µg/l			To be agreed upon completion of POFD 1
Point marked "2: river water return" on the drawing titled	Cooling water return	Incremental temperature [Note 1]	+ 2°C			To be agreed upon completion of POFD 1

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
“Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18						
Point marked “2: river water return” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Cooling water return	Volume of discharge	5,000 m ³ in any 24 consecutive hours	To be agreed upon completion of POFD 1		
Point marked “2: river water return” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Cooling water return	Rate of discharge	57.9 l/s	To be agreed upon completion of POFD 1		

Note 1: Any reference to “incremental” means the difference between that parameter measured in the process cooling water return and the same parameter measured in the abstracted water from the River Hull on the same day.

Table S3.3 Point source emissions to sewer						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
Point marked “1: trade effluent to sewer” on the drawing titled “Figure 2 Site Layout Plan Morley Street, Hull” – received 16/03/18	Site process effluent	No parameters set	No limits set	None set		

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1	A: prep odour scrubber, B: extraction odour scrubber and E: boiler flue	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	2: river water return	To be agreed upon completion of POFD 1.	

Table S4.2: Annual production/treatment	
Parameter	Units
Rapeseed processed	tonnes
Rapeseed oil produced	litres

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Hexane consumption	Annually	kg hexane consumed/t rapeseed processed

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	26/03/18
Water	Form water 1 or other form as agreed in writing by the Environment Agency	26/03/18
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	26/03/18
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	26/03/18
Hexane consumption	Form hexane 1 or other form as agreed in writing by the Environment Agency	26/03/18

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

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

(c) Notification requirements for the 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.

“emissions to land” includes emissions to groundwater.

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

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

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

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

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

Pests” means Birds, Vermin and Insects.

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

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

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

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT.

Permit Number: EPR/ZP3931YU

Operator:

Cargill plc

Facility: 45 Morley Street

Form Number:

Air1 / 26/03/18

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

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A: prep odour scrubber	Particulate matter	20 mg/m ³	Hourly average		BS EN 13284-1		
B: extraction odour scrubber	Particulate matter	20 mg/m ³	Hourly average		Non-isokinetic method (HSE MDHS Method 14 or similar)		
E: boiler flue	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	70 mg/m ³	Hourly average		BS EN 14792		

1. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/ZP3931YU

Operator:

Cargill plc

Facility: 45 Morley Street

Form Number:

Water1 / 26/03/18

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

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[2]	Test Method ^[3]	Sample Date and Times ^[4]	Uncertainty ^[5]
2: river water return	Incremental biochemical oxygen demand (BOD) ^[1]	+ 40 mg/l					
2: river water return	Incremental ammoniacal nitrogen ^[1]	+ 3 mg/l					
2: river water return	Incremental suspended solids ^[1]	+ 60 mg/l					
2: river water return	Visible oil or grease	No significant trace present so far as is reasonably practicable					
2: river water return	Hexachlorocyclohexane (HCH)(gamma isomer)	1.5 µg/l					
2: river water return	Incremental temperature ^[1]	+ 2°C					

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[2]	Test Method ^[3]	Sample Date and Times ^[4]	Uncertainty ^[5]
2: river water return	Volume of discharge	5,000 m ³ in any 24 consecutive hours					
2: river water return	Rate of discharge	57.9 l/s					

1. Any reference to “incremental” means the difference between that parameter measured in the process cooling water return and the same parameter measured in the abstracted water from the River Hull on the same day.
2. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the ‘minimum – maximum’ measured values.
3. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
4. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
5. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/ZP3931YU

Operator: Cargill plc

Facility: 45 Morley Street

Form Number: WaterUsage1 / 26/03/18

Reporting of Water Usage for the year YYYY

Water Source	Usage (m³/year)	Specific Usage (m³/unit output)
Mains water		
River abstraction		
TOTAL WATER USAGE		

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: EPR/ZP3931YU

Operator: Cargill plc

Facility: 45 Morley Street

Form Number: Energy1 / 26/03/18

Reporting of Energy Usage for the year YYYY

Energy Source	Energy Usage		
	Quantity	Primary Energy (MWh)	Specific Usage (MWh/unit output)
Electricity *	MWh		
Natural Gas	MWh		
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/ZP3931YU

Operator: Cargill plc

Facility: 45 Morley Street

Form Number: Hexane1 / 26/03/18

Reporting of Water Usage for the year YYYY

Hexane consumed (kg)	Seed processed (tonnes)	Specific Usage (kg hexane/tonne seed)

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)