

.Review of an Environmental Permit for an Installation subject to Chapter II of the Industrial Emissions Directive under the Environmental Permitting (England & Wales) Regulations 2016 (as amended)

Decision document recording our decision-making process following review of a permit

The Permit number is: EPR/FP3845QK
The Operator is: Dairy Consumer Foods (UK) Limited
The Installation is: The Healey Complex
This Variation Notice number is: EPR/FP3845QK/V003

What this document is about

Article 21(3) of the Industrial Emissions Directive (IED) requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication by the European Commission of updated decisions on best available techniques (BAT) Conclusions.

We have reviewed the permit for this installation against the BAT Conclusions for the Food, Drink and Milk Industries published on 4th December 2019 in the Official Journal of the European Union. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the Operator in the operation and control of the plant and activities of the installation. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, it also modernises the entire permit to reflect the conditions contained in our current generic permit template.

The introduction of new template conditions makes the Permit consistent with our current general approach and with other permits issued to Installations in this sector. Although the wording of some conditions has changed, while others have been deleted because of the new regulatory approach, it does not reduce the level of environmental protection achieved by the Permit in any way. In this document, we therefore address only our determination of substantive issues relating to the new BAT Conclusions.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future.

How this document is structured

1. Our decision
2. How we reached our decision
3. The legal framework
4. Annex 1 – Review of operating techniques within the Installation against BAT Conclusions.
5. Annex 2 – Review and assessment of changes that are not part of the BAT Conclusions derived permit review
6. Annex 3 – Improvement Conditions

1 Our decision

We have decided to issue the Variation Notice to the Operator. This will allow the Operator to continue to operate the Installation, subject to the conditions in the Consolidated Variation Notice that updates the whole permit.

We consider that, in reaching our decision, we have taken into account all relevant considerations and legal requirements and that the varied permit will ensure that a high level of protection is provided for the environment and human health.

The Consolidated Variation Notice contains many conditions taken from our standard Environmental Permit template including the relevant annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Notice, we have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate. This document does, however, provide an explanation of our use of “tailor-made” or installation-specific conditions, or where our Permit template provides two or more options.

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 08/06/2022 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

The Notice required that where the revised standards are not currently met, the operator should provide information that:

- describes the techniques that will be implemented before 4 December 2023, which will then ensure that operations meet the revised standards, or
- justifies why standards will not be met by 4 December 2023, and confirmation of the date when the operation of those processes will cease within the Installation or an explanation of why the revised BAT standards are not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised BAT standards described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT-AEL) described in the BAT Conclusions Document, the Regulation 61 Notice required that the Operator make a formal request for derogation from compliance with that BAT-AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request.

The Regulation 61 Notice response from the Operator was received on 04/10/2022.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review but not that it necessarily contained all the information we would need to complete that determination.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 61 Notice response that appears to be confidential in relation to any party.

2.2 Review of our own information in respect to the capability of the Installation to meet revised standards included in the BAT Conclusions document

Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 6, 7, 8 and 9. The operator does not currently comply with the requirements of BATc 6. In relation to this BAT Conclusion, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Conditions IC2 and IC3 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 25/07/2023 regarding BATcs 3, 4, 5, 7, 8, 9, 10, 11, 12, AELs, 13, 14, 15, 30, MCPs, cooling towers, site plan. A copy of the further information request was placed on our public register.

3 The legal framework

The Consolidated Variation Notice will be issued under Regulations 18 and 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of other relevant legislation which also have to be addressed.

We consider that, in issuing the Consolidated Variation Notice, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusions for the Food, Drink and Milk Industries, were published by the European Commission on 4 December 2019.

There are 37 BAT Conclusions.

BAT 1 – 15 are General BAT Conclusions (Narrative BAT) applicable to all relevant Food, Drink and Milk Installations in scope.

BAT 16 – 37 are sector-specific BAT Conclusions, including Best Available Techniques Associated Emissions Levels (BAT-AELs) and Associated Environmental Performance Levels (BAT-AEPLs):

BAT 16 & 17	BAT Conclusions for Animal Feed
BAT 18 – 20	BAT Conclusions for Brewing
BAT 21 – 23	BAT Conclusions for Dairies
BAT 24	BAT Conclusions for Ethanol Production
BAT 25 & 26	BAT Conclusions for Fish and Shellfish Processing
BAT 27	BAT Conclusions for Fruit and Vegetable Processing
BAT 28	BAT Conclusions for Grain Milling
BAT 29	BAT Conclusions for Meat Processing
BAT 30 – 32	BAT Conclusions for Oilseed Processing and Vegetable Oil Refining
BAT 33	BAT Conclusions for Soft Drinks and Nectar/Fruit Juice Processed from Fruit and Vegetables
BAT 34	BAT Conclusions for Starch Production
BAT 35 – 37	BAT Conclusions for Sugar Manufacturing

This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the Consolidated Variation Notice.

The overall status of compliance with the BAT conclusion is indicated in the table as:

NA – Not Applicable

CC – Currently Compliant

FC – Compliant in the future (within 4 years of publication of BAT Conclusions)

NC – Not Compliant

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	<p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	CC	<p>The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.</p> <p>The Operator uses an EMS accredited to ISO14001 standard.</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The Operator declared that it is using:</p> <ul style="list-style-type: none"> • A simplified process diagram • Description of processes and techniques that identify emissions points • Monitoring of water inputs and outputs • Effluent quality monitored prior to sewer discharge • Identified waste gas streams and chemical composition • Information regarding energy consumption, resource used, and waste generation • Monitoring of inputs and outputs based on company's agreed KPIs and environmental targets
3	<p>Monitoring key process parameters at key locations for emissions to water.</p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	CC	<p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p> <p>The Operator declared that it is monitoring on-site treated process effluent prior to discharge to Yorkshire Water sewer via emission point S1 through an automated system located at the outflow from DAF plant.</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			<p>The site also has uncontaminated discharges to River Calder via emission points, W1 – hardstand run-off , W2 and W3 to soakaways 1 and 2. This discharge points use interceptors and/or oil separators.</p> <p>Monitoring taken in relation to W1 are COD, SS and mineral oils.</p>
4	<p>Monitoring emissions to water to the required frequencies and standards. BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this Installation.</p> <p>This BAT is concerned with effluent discharge to water and this installation does not have such discharges. Trade effluent is treated on-site and discharged to sewer. The only emissions to water are uncontaminated waters discharged via interceptors and/or oil separators through W1 to River Calder, and W2 and W3 to soakaways 1 and 2.</p>
5	<p>Monitoring channelled emissions to air to the required frequencies and standards. BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.</p>	NA	<p>We are satisfied that BATc 5 is not applicable to this Installation.</p> <p>This BAT is concerned with atmospheric discharges of dust laden flue gases released from drying, cooling, grinding and handling processes. This installation manufactures vegetable oil spreads that are produces predominantly from liquid raw materials to which flavouring and/or colorants are added. The cooling process is unlikely to release particulates therefore, we do not believe this BATc to be applicable.</p>
6	<p>Energy Efficiency In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	FC	<p>The operator did not provide any information to support compliance with BATc 6(a) in response to the Regulation 61 Notice dated 98/06/2022..</p> <p>However, in the RFI Response, the Operator declared future compliance with BATc 6(b) was made in error and provided the following energy efficiency information:</p>

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			<ul style="list-style-type: none"> • Variable speed drives have been installed on all electric motors in the production and refrigeration areas • LED lighting is being used • Economisers have been fitted • Heat pumps are utilised • Replaced pipe insulation across the site <p>We consider that the operator will be future compliant with BATc 6(a). Improvement condition IC2 has been included in the permit to achieve compliance (see Annex 3).</p>
7	<p>Water and wastewater minimisation</p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse</p> <p>(b) Optimisation of water flow</p> <p>(c) Optimisation of water nozzles and hoses</p> <p>(d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p> <p>(e) Dry cleaning</p> <p>(f) Pigging system for pipes</p> <p>(g) High-pressure cleaning</p> <p>(h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP)</p> <p>(i) Low-pressure foam and/or gel cleaning</p> <p>(j) Optimised design and construction of equipment and process areas</p> <p>(k) Cleaning of equipment as soon as possible</p>	FC	<p>The operator did not provide any information to support compliance with BATc 7 in response to the Regulation 61 Notice dated 08/06/2022..</p> <p>The Operator declared that plans to reduce water consumption and wastewater generation are in place.</p> <p>We do not consider this statement to satisfy the requirement of this BATc and we believe the Operator will be future compliant by 04/12/2023.</p> <p>As such, Improvement condition IC2 has been included in the permit to achieve compliance (see Annex 3).</p>
8	<p>Prevent or reduce the use of harmful substances</p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants</p> <p>(b) Reuse of cleaning chemicals in cleaning-in-place (CIP)</p> <p>(c) Dry cleaning</p>	CC	<p>The operator did not provide any information to support compliance with BATc 8 in response to the Regulation 61 Notice dated 08/06/2022.</p> <p>However, the Operator declared that it is currently working with the chemical supplier to reduce chemical usage in CIP.</p>

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	(d) Optimised design and construction of equipment and process areas		
9	<p>Refrigerants</p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	FC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The Operator declared that it is using Ammonia in the Central Plant Tank and Piolet Plant, along with the following high GWP gases:</p> <ul style="list-style-type: none"> • R404A 8° Chill and -10°C Freezer • R410A ICS Chiller and Daikin Chiller. <p>We consider that the operator will be future compliant with BATc 9. Improvement condition IC3 has been included in the permit to achieve compliance (see Annex 3).</p>
10	<p>Resource efficiency</p> <p>In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading 	CC	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The Operator declared that it is using the following resource efficiency technique:</p> <ul style="list-style-type: none"> • Separation of residues <p>Other efficiencies, not shown in this BATc, are:</p> <ul style="list-style-type: none"> • ETP automation (equipment on site to be fitted at a later date) • Water reduction through improved CIP • Reduction of food waste through reduced purge
11	<p>Waste water buffer storage</p> <p>In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>	CC	<p>The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 11.</p> <p>The Operator declared that all spillages from ETP and/or other parts of the installation are collected by</p>

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			the on-site drainage system and directed to the ETP sump to be treated prior to discharge to sewer.
12	<p>Emissions to water – treatment</p> <p>In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <p>(a) Equalisation</p> <p>(b) Neutralisation</p> <p>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</p> <p>(e) Nitrification and/or denitrification</p> <p>(f) Partial nitrification - anaerobic ammonium oxidation</p> <p>Phosphorus recovery and/or removal</p> <p>(g) Phosphorus recovery as struvite</p> <p>(h) Precipitation</p> <p>(i) Enhanced biological phosphorus removal</p> <p>Final solids removal</p> <p>(j) Coagulation and flocculation</p> <p>(k) Sedimentation</p> <p>(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)</p> <p>(m) Flotation</p>	CC	<p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The Operator declared that it is:</p> <ul style="list-style-type: none"> • Collecting effluent in the inlet sump • Primary screening • Balancing • DAF • Coagulation and flocculation • Sludge holding for biofuel or, • Final effluent sump, prior to <p>discharge to sewer leading to Yorkshire Water Treatment Works.</p>
12	<p>Emissions to water – treatment</p> <p>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</p>	NA	<p>We are satisfied that BAT-AELs are not applicable to this installation.</p> <p>This BATc is applicable only where there are discharges of process effluent to surface waters; this installation discharges its treated effluent to sewer via emission point S1 under consent from Yorkshire Water Municipal Plant.</p> <p>Other discharges via emission points W1, W2 and W3 consist only of uncontaminated run-off waters, but subject to the requirements of the BAT-AELs.</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement										
	<table border="1"> <thead> <tr> <th data-bbox="282 261 770 300">Parameter</th> <th data-bbox="770 261 1211 300">BAT-AEL (1) (2) (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="282 300 770 338">Chemical oxygen demand (COD) (3) (4)</td> <td data-bbox="770 300 1211 338">25-100 mg/l (5)</td> </tr> <tr> <td data-bbox="282 338 770 376">Total suspended solids (TSS)</td> <td data-bbox="770 338 1211 376">4-50 mg/l (6)</td> </tr> <tr> <td data-bbox="282 376 770 414">Total nitrogen (TN)</td> <td data-bbox="770 376 1211 414">2-20 mg/l (7) (8)</td> </tr> <tr> <td data-bbox="282 414 770 453">Total phosphorus (TP)</td> <td data-bbox="770 414 1211 453">0,2-2 mg/l (9)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (1) (2) (daily average)	Chemical oxygen demand (COD) (3) (4)	25-100 mg/l (5)	Total suspended solids (TSS)	4-50 mg/l (6)	Total nitrogen (TN)	2-20 mg/l (7) (8)	Total phosphorus (TP)	0,2-2 mg/l (9)		
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Total nitrogen (TN)	2-20 mg/l (7) (8)												
Total phosphorus (TP)	0,2-2 mg/l (9)												
13	<p>Noise management plan</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. 	NA	<p>We are satisfied that BATc 13 is not applicable to this Installation.</p> <p>A noise management plan is only required where noise nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated noise nuisances from the site therefore an NMP is not a requirement for this site.</p>										
14	<p>Noise management</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below.</p> <ul style="list-style-type: none"> (a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement 	CC	<p>The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.</p> <p>The Operator declared that it is using operational measures and low-noise equipment to manage noise generation.</p>										
15	<p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. 	NA	<p>We are satisfied that BATc 15 is not applicable to this Installation.</p> <p>An odour management plan is only required where odour nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated odour nuisance from the site recently, therefore this BATc is not applicable.</p>										

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	<ul style="list-style-type: none"> - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. 												
	OILSEED PROCESSING & VEGETABLE OIL REFINING SECTOR BAT CONCLUSIONS (BAT 30-32)												
30	<p>Energy efficiency – Oilseed processing and refining</p> <p>In order to increase energy efficiency, BAT is to use an appropriate combination of the techniques specified in BAT 6 and to generate an auxiliary vacuum.</p>	CC	<p>The operator has provided information to support compliance with BATc 30. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 30.</p> <p>The Operator declared that, in addition to the energy efficiencies shown in BATc 6, there are vacuum pumps on each of the 6 lines, driving the vacuum suction that is required to place lids, tubs and outer cases on to the lines.</p>										
31	<p>In order to reduce channelled dust emissions to air, BAT is to use one or a combination of the techniques given below.</p> <table border="1" data-bbox="277 895 1173 1184"> <thead> <tr> <th data-bbox="277 895 495 954">Technique</th> <th data-bbox="495 895 730 954">Description</th> <th data-bbox="730 895 1173 954">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 954 344 1042">(a) Bag filter</td> <td data-bbox="495 954 730 1042" rowspan="3" style="text-align: center;">See Section 14.2</td> <td data-bbox="730 954 1173 1042">May not be applicable to the abatement of sticky dust.</td> </tr> <tr> <td data-bbox="277 1042 344 1098">(b) Cyclone</td> <td data-bbox="730 1042 1173 1098" style="text-align: center;">Generally applicable.</td> </tr> <tr> <td data-bbox="277 1098 344 1184">(c) Wet scrubber</td> <td data-bbox="730 1098 1173 1184"></td> </tr> </tbody> </table>	Technique	Description	Applicability	(a) Bag filter	See Section 14.2	May not be applicable to the abatement of sticky dust.	(b) Cyclone	Generally applicable.	(c) Wet scrubber		NA	<p>We are satisfied that BATc 31 is not applicable to this installation.</p> <p>The production of vegetable oil spreads does not involve processes capable of generating dust emissions under the scope of this BAT that would require filtration. The manufacturing process consists of mixing liquid ingredients.</p>
Technique	Description	Applicability											
(a) Bag filter	See Section 14.2	May not be applicable to the abatement of sticky dust.											
(b) Cyclone		Generally applicable.											
(c) Wet scrubber													

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement																
AEL	<p>BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from handling and preparation of seeds as well as drying and cooling of meal.</p> <table border="1" data-bbox="275 368 1171 619"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th colspan="2">BAT-AEL (average over the sampling period)</th> </tr> <tr> <td>Dust</td> <td>mg/Nm³</td> <th>New plants</th> <th>Existing plants</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td><2-5 ⁽¹⁾</td> <td><2-10 ⁽¹⁾</td> </tr> <tr> <td colspan="4">(1) The upper end of the range is 20 mg/Nm³ for drying and cooling of meal.</td> </tr> </tbody> </table>	Parameter	Unit	BAT-AEL (average over the sampling period)		Dust	mg/Nm ³	New plants	Existing plants			<2-5 ⁽¹⁾	<2-10 ⁽¹⁾	(1) The upper end of the range is 20 mg/Nm ³ for drying and cooling of meal.				NA	<p>We are satisfied that BAT-AEL is not applicable to this installation.</p> <p>The production of vegetable oil spreads does not involve processes capable of generating dust emissions under the scope of this BAT that would require filtration. Therefore, there are no air emission points where the BAT-AEL would be applicable.</p>
Parameter	Unit	BAT-AEL (average over the sampling period)																	
Dust	mg/Nm ³	New plants	Existing plants																
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32	<p>In order to reduce the hexane losses from oilseed processing and refining, BAT is to use all of the techniques given below:</p> <table border="1" data-bbox="275 738 1216 1134"> <thead> <tr> <th></th> <th>Technique</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Countercurrent flow of meal and steam in the desolventiser-toaster</td> <td>Hexane is removed from the hexane-laden meal in a desolventiser-toaster, involving a countercurrent flow of steam and meal.</td> </tr> <tr> <td>(b)</td> <td>Evaporation from the oil/hexane mixture</td> <td>Hexane is removed from the oil/hexane mixture using evaporators. The vapours from the desolventiser-toaster (steam/hexane mixture) are used to provide thermal energy in the first stage of the evaporation.</td> </tr> <tr> <td>(c)</td> <td>Condensation in combination with a mineral oil wet scrubber</td> <td>Hexane vapours are cooled to below their dew point so that they condense. Uncondensed hexane is absorbed in a scrubber using mineral oil as a scrubbing liquid for subsequent recovery.</td> </tr> <tr> <td>(d)</td> <td>Gravitational phase separation in combination with distillation</td> <td>Undissolved hexane is separated from the aqueous phase by means of a gravitational phase separator. Any residual hexane is distilled off by heating the aqueous phase to approximately 80-95 °C.</td> </tr> </tbody> </table>		Technique	Description	(a)	Countercurrent flow of meal and steam in the desolventiser-toaster	Hexane is removed from the hexane-laden meal in a desolventiser-toaster, involving a countercurrent flow of steam and meal.	(b)	Evaporation from the oil/hexane mixture	Hexane is removed from the oil/hexane mixture using evaporators. The vapours from the desolventiser-toaster (steam/hexane mixture) are used to provide thermal energy in the first stage of the evaporation.	(c)	Condensation in combination with a mineral oil wet scrubber	Hexane vapours are cooled to below their dew point so that they condense. Uncondensed hexane is absorbed in a scrubber using mineral oil as a scrubbing liquid for subsequent recovery.	(d)	Gravitational phase separation in combination with distillation	Undissolved hexane is separated from the aqueous phase by means of a gravitational phase separator. Any residual hexane is distilled off by heating the aqueous phase to approximately 80-95 °C.	NA	<p>We are satisfied that BATc 32 is not applicable to this installation.</p> <p>This BATc is concerned with hexane losses from oilseed processes. However, this installation does not process any seeds for the scope of obtaining oil but uses oils imported to site and there is no use for hexane in manufacturing vegetable oil spreads. As such, BATc 32 is not applicable to this installation.</p>	
	Technique	Description																	
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AELS	<p>BAT-associated emission levels (BAT-AELs) for hexane losses from oilseed processing and refining:</p> <table border="1" data-bbox="275 1257 1223 1433"> <thead> <tr> <th>Parameter</th> <th>Type of seeds or beans processed</th> <th>Unit</th> <th>BAT-AEL (yearly average)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Hexane losses</td> <td>Soybeans</td> <td rowspan="2">kg/tonne of seeds or beans processed</td> <td>0,3-0,55</td> </tr> <tr> <td>Rapeseeds and sunflower seeds</td> <td>0,2-0,7</td> </tr> </tbody> </table>	Parameter	Type of seeds or beans processed	Unit	BAT-AEL (yearly average)	Hexane losses	Soybeans	kg/tonne of seeds or beans processed	0,3-0,55	Rapeseeds and sunflower seeds	0,2-0,7	NA	<p>We are satisfied that BAT-AELs are not applicable to this installation.</p> <p>The site does not process oilseeds nor uses hexane for oil extraction. The Operator imports to site already produced oils that are then used to produce vegetable oil spreads. As such, BAT-AELs are not applicable to this installation.</p>						
Parameter	Type of seeds or beans processed	Unit	BAT-AEL (yearly average)																
Hexane losses	Soybeans	kg/tonne of seeds or beans processed	0,3-0,55																
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BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement										
Oilseed processing & vegetable oil refining sector Environmental Performance Levels													
EPL	<p>Environmental Performance Level – Energy consumption</p> <table border="1" data-bbox="286 379 1218 587"> <thead> <tr> <th data-bbox="286 379 734 443">Specific process</th> <th data-bbox="734 379 976 443">Unit</th> <th data-bbox="976 379 1218 443">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="286 443 734 507">Integrated crushing and refining of rapeseeds and/or sunflower seeds</td> <td data-bbox="734 443 976 507" rowspan="3">MWh/tonne of oil produced</td> <td data-bbox="976 443 1218 507">0,45-1,05</td> </tr> <tr> <td data-bbox="286 507 734 547">Integrated crushing and refining of soybeans</td> <td data-bbox="976 507 1218 547">0,65-1,65</td> </tr> <tr> <td data-bbox="286 547 734 587">Stand-alone refining</td> <td data-bbox="976 547 1218 587">0,1-0,45</td> </tr> </tbody> </table>	Specific process	Unit	Specific energy consumption (yearly average)	Integrated crushing and refining of rapeseeds and/or sunflower seeds	MWh/tonne of oil produced	0,45-1,05	Integrated crushing and refining of soybeans	0,65-1,65	Stand-alone refining	0,1-0,45	NA	<p>We are satisfied that EPL for energy is not applicable to this installation.</p> <p>This EPL is concerned with energy consumption associated with oilseeds processing. This is not an activity present at this installation that uses already manufactured oils to produce vegetable oil spreads. The Operator, however, provided a recorded energy consumption of 0.3 MWh/t of product manufactured.</p>
	Specific process	Unit	Specific energy consumption (yearly average)										
	Integrated crushing and refining of rapeseeds and/or sunflower seeds	MWh/tonne of oil produced	0,45-1,05										
	Integrated crushing and refining of soybeans		0,65-1,65										
Stand-alone refining	0,1-0,45												
EPL	<p>Environmental Performance Level – Specific waste water discharge</p> <table border="1" data-bbox="286 826 1218 1034"> <thead> <tr> <th data-bbox="286 826 734 890">Specific process</th> <th data-bbox="734 826 976 890">Unit</th> <th data-bbox="976 826 1218 890">Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="286 890 734 954">Integrated crushing and refining of rapeseeds and/or sunflower seeds</td> <td data-bbox="734 890 976 1034" rowspan="3">m³/tonne of oil produced</td> <td data-bbox="976 890 1218 954">0,15-0,75</td> </tr> <tr> <td data-bbox="286 954 734 994">Integrated crushing and refining of soybeans</td> <td data-bbox="976 954 1218 994">0,8-1,9</td> </tr> <tr> <td data-bbox="286 994 734 1034">Stand-alone refining</td> <td data-bbox="976 994 1218 1034">0,15-0,9</td> </tr> </tbody> </table>	Specific process	Unit	Specific waste water discharge (yearly average)	Integrated crushing and refining of rapeseeds and/or sunflower seeds	m ³ /tonne of oil produced	0,15-0,75	Integrated crushing and refining of soybeans	0,8-1,9	Stand-alone refining	0,15-0,9	NA	<p>We are satisfied that EPL for wastewater discharge is not applicable to this installation.</p> <p>This EPL is concerned with wastewater discharge from activities associated with oilseeds processing. This is not an activity present at this installation that uses already manufactured oils to produce vegetable oil spreads. The Operator, however, provided a recorded wastewater discharge volume of 0.55 m³/t of finished product.</p>
	Specific process	Unit	Specific waste water discharge (yearly average)										
	Integrated crushing and refining of rapeseeds and/or sunflower seeds	m ³ /tonne of oil produced	0,15-0,75										
	Integrated crushing and refining of soybeans		0,8-1,9										
Stand-alone refining	0,15-0,9												

Annex 2: Review and assessment of changes that are not part of the BAT Conclusions derived permit review

Updating permit during permit review consolidation

- Introductory note updated
- Site plan
- Table S1.1 overhaul
 - Activity Reference (AR) renumbering
 - Updated listed activities
 - Addition of production capacity
 - Directly associated activities (DAAs) standardisation

We have updated permit conditions to those in the current generic permit template as a part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Production Threshold

The Environment Agency is looking to draw a “line in the sand” for permitted production capacity; a common understanding between the Operator and regulator for the emissions associated with a (maximum) level of production, whereby the maximum emissions have been demonstrated as causing no significant environmental impact.

We have included a permitted production level (capacity) within table S1.1 of the permit for the section 6.8 listed activity and we need to be confident that the level of emissions associated with this production level have been demonstrated to be acceptable.

The existing volume of raw material permitted at the site has not increased since the previous variation and therefore the assessment for emissions to water/sewer remain valid for capacity threshold now placed within table S1.1 of the permit.

Emissions to Air

We asked the operator to list all emission points to air from the installation in the Regulation 61 notice. And to provide a site plan indicating the locations of all air emission points.

The operator has provided an up to date air emission plan.

Implementing the requirements of the Medium Combustion Plant Directive

Existing Medium Combustion Plant (1MW-50MW)

We asked the Operator to provide information on all combustion plant on site in the Regulation 61 Notice as follows:

- Number of combustion plant (CHP engines, back-up generators, boilers);

- Size of combustion plant – rated thermal input (MWth)
- Date each combustion plant came into operation

The Operator provided the information in the table(s) below:

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	11.7 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler Bosch 1 – 2.5 MWth Boiler Bosch 2 – 2.5 MWth Boiler Bosch 3 – 2.5 MWth Boiler Bosch Steam – 3.0 MWth Boiler Fulton 1 – 0.6 MWth (Back-up) Boiler Fulton 2 – 0.6 MWth (Back-up)
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	All MCPs fired on 100% natural gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	Pre 2018

We have reviewed the information provided.

Although the Operator has not provided us with commissioning dates for the above listed Boilers, there are no indications that have been any changes in respect to the MCPs, and the original permit was issued prior to December 2018, respectively October 2018, we can therefore consider that the declared combustion plants qualify as “existing” medium combustion plants.

Note: because Boilers Fulton 1 and 2 have an individual capacity of under 1 MWth, these are exempt from complying with the MCPD requirement and, as such, no ELVs or monitoring requirements will be included in the consolidated permit.

For existing MCP with a rated thermal input of less than or equal to 5 MW, Boilers 1, 2, 3 and Bosh Steam, the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030.

We have included the appropriate emission limit values for existing medium combustion plant as part of this permit review. See Table S3.1 in the permit. We have also included a new condition 3.1.4 within the permit which specifies the monitoring requirements for the combustion plant in accordance with the MCPD.

Emissions to Water and implementing the requirements of the Water Framework Directive

We asked the Operator to provide information on all emissions to water at the installation in the Regulation 61 Notice as follows;

- Identify any effluents which discharge directly to surface or groundwater;
- Provide an assessment of volume and quality, including results of any monitoring data available;
- and for any discharges to water / soakaway whether a recent assessment of the feasibility of connection to sewer has been carried out.

The operator has previously provided assessments for all emissions to water at the installation. The operator declares there has been no change to activities and subsequent effluents generated at the installation since this risk assessment was taken. Consequently, we agree that the original risk assessments remain valid at this time.

Soil & groundwater risk assessment (baseline report)

The IED requires that the operator of any IED installation using, producing or releasing “relevant hazardous substances” (RHS) shall, having regarded the possibility that they might cause pollution of soil and groundwater, submit a “baseline report” with its permit application. The baseline report is an important reference document in the assessment of contamination that might arise during the operational lifetime of the regulated facility and at cessation of activities. It must enable a quantified comparison to be made between the baseline and the state of the site at surrender.

At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site’s current or approved future use. To do this, the Operator has to submit a surrender application to us, which we will not grant unless and until we are satisfied that these requirements have been met.

The Operator submitted a site condition report [Reference number 1278 issued on February 2014] at the time of permit application [duly made on 12/02.2018]. The Operator has also submitted a site baseline report [Report ref: Section B.2.3.C] as part of the Reg.61 Response Tool. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

Hazardous Substances

Hazardous substances are those defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures

The operator has confirmed there has been no change in the hazardous substances used, their capability of causing pollution and/or the pollution prevention measures at the installation since the risk assessment was submitted on 31/07/2017. Consequently, we are satisfied there has been no change to the assessment of risk for hazardous substances.

Climate Change Adaptation

The operator has considered if the site is at risk of impacts from adverse weather (flooding, unavailability of land for land spreading, prolonged dry weather / drought) .

The Operator has identified the installation as likely to be or has been affected by adverse weather including flooding, and considered the effects of prolonged dry weather conditions, which we consider to be a severe weather event.

Because the Operator has not submitted a CCA plan, we have included an improvement condition into the permit (IC4) to request a climate change adaptation plan is submitted by the Operator for approval from the Environment Agency.

Containment

We asked the Operator via the Regulation 61 Notice to provide details of the each above ground tanks which contain potentially polluting liquids at the site, including tanks associated with the effluent treatment process where applicable.

The Operator provided details of all tanks;

- Tank reference/name
- Contents
- Capacity (litres)
- Location
- Construction material(s) of each tank
- The bunding specification including
 - Whether the tank is bunded
 - If the bund is shared with other tanks
 - The capacity of the bund
 - The bund capacity as % of tank capacity
 - Construction material of the bund
 - Whether the bund has a drain point
 - Whether any pipes penetrate the bund wall
- Details of overfill prevention
- Drainage arrangements outside of bunded areas
- Tank filling/emptying mitigation measures (drips/splashes)
- Leak detection measures
- Details of when last bund integrity test was carried out
- Maintenance measures in place for tank and bund (inspections)
- How the bund is emptied
- Details of tertiary containment

and whether the onsite tanks currently meet the relevant standard in the Ciria “Containment systems for the prevention of pollution (C736)” report.

We reviewed the information provided by the operator. We are satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

Annex 3: Improvement Conditions

Based on the information in the Operator's Regulation 61 Notice response and our own records of the capability and performance of the installation at this site, we consider that we need to set improvement conditions so that the outcome of the techniques detailed in the BAT Conclusions are achieved by the installation. These improvement conditions are set out below - justifications for them is provided at the relevant section of the decision document (Annex 1 or Annex 2).

Previous improvement conditions marked as complete in the previous permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IC1	The Operator shall carry out a noise assessment for the installation in accordance with the requirements of BS4142:2014 – Method for Rating Industrial Noise affecting mixed Residential and Industrial Areas. The assessment shall include the impact of operations during day-time and night-time periods. A written report, summarising the outcome of the assessment, including a timetable for the implementation of any improvements identified, shall be submitted to the Environment Agency for approval.

The following improvement conditions have added to the permit as a result of the variation.

Improvement programme requirements		
Reference	Reason for inclusion	Justification of deadline
IC2	The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 6 and 7 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.	One month from permit issue
IC3	The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs. To demonstrate compliance against BAT 9, the operator shall develop a replacement plan for the refrigerant system(s) at the installation. This shall be incorporated within the existing environmental management system by the specified date. The plan should include, but not be limited to, the following: <ul style="list-style-type: none"> • Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. • An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest 	One month from permit issue

	practicable GWP. • An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.	
IC4	<p>The operator shall produce a climate change adaptation plan. The approved plan will form part of the EMS. The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p>	12 months from permit issue or other date agreed in writing with the Environment Agency