

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/CP3139GC
The Operator is: Refresco Drinks UK Limited
The Installation is: Refresco Nelson
This Variation Notice number is: EPR/CP3139GC/V006

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 03/10/2022 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 11/03/2022.

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 have no reason to consider that the Operator will not be able to comply with the techniques and standards described in the BAT Conclusions.

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 10/01/2024. We requested further information regarding BATc 1, 6 and filling in the Hazardous Substance section of RHS Baseline. 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 has a EMS externally accredited to the 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 has a EMS externally accredited to the ISO14001 standard. The Operator has also confirmed that the site has a strategy plan for improving efficiency including reducing energy, water consumption and raw material usage. During the course of 2023 the site implemented initiatives to reduce usage and increase efficiency. This includes an energy audit completed at central level identifying area where energy efficiency can be reduced further. The site currently have a Beat the Budget initiative that includes improving energy resources.</p>
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>

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
			The operator has stated that The site how now a new system for effluent streaming which includes continuous testing of pH, flow rate and temperature. The system alarms and has shut off valves stopping any flow discharge whilst not within specification. Automatic correction will then bring back to correct specification before the outlet valve will open for discharge.
4	<p>Monitoring emissions to water to the required frequencies and standards.</p> <p>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>The Operator doesn't discharge directly to watercourse.</p>
5	<p>Monitoring channelled emissions to air to the required frequencies and standards.</p> <p>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>There are no relevant emissions to air in relation to BAT 5.</p>
6	<p>Energy Efficiency</p> <p>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 has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 6.</p> <p>The operator has stated that actions for the site in 2022 include installing sub-metering on site and carrying out an energy audit to generate more robust process energy data and identify energy savings opportunities across the site. The operator has provided an Energy Efficiency Plan 2022 which was not a detailed plan, providing only bullet pointed statements rather than key site information</p>

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			<p>and target setting. We have therefore included IC7 in order to ensure compliance.</p> <p>The operator did not provide details of any energy saving techniques used on site.</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>	CC	<p>The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The operator has stated that they are implementing the following techniques:</p> <p>a) water recycling and/or reuse - Yes, final CIP rinse is recovered for CIP first flush</p> <p>(b) Optimisation of water flow - Yes, all water flow over process plant is optimised.</p> <p>(c) Optimisation of water nozzles and hoses - Foam cleaning and pistol grips in use at the installation</p> <p>(d) Segregation of water streams - Yes, treated process water (via V and filtration) and towns water segregated for use across the site.</p> <p>Techniques related to cleaning operations:</p> <p>(e) Dry cleaning - No, n/a for process</p> <p>(f) Pigging system for pipes - No, CIP system</p> <p>(g) High-pressure cleaning - No, n/a for process</p> <p>(h) Optimisation of chemical dosing and water use in cleaning-in-place – Yes, conductivity meters are calibrated periodically and installation has been CIP optimised where possible during the installation/maintenance of lines.</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>(i) Low-pressure foam and/or gel cleaning - Yes, foam cleaning is in place across the installation.</p> <p>(j) Optimised design and construction of equipment and process areas – Yes, all machinery/equipment is designed specifically for the intended product, process plants are also designed to be as efficient as possible for the intended products.</p> <p>(k) Cleaning of equipment as soon as possible - Yes, cleaning schedule set by product planning and cleaning matrix in use to ensure efficient cleaning and optimisation.</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> <p>(d) Optimised design and construction of equipment and process areas</p>	CC	<p>The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The operator has stated that they are implementing the following techniques:</p> <p>a) Proper selection of cleaning chemicals and/or disinfectants - Yes, all CIP chemicals are assessed regularly and maintained specific to the plant and products being produced - all food grade.</p> <p>(b) Reuse of cleaning chemicals in cleaning-in-place (CIP) - Yes, final CIP rinse is recovered for CIP first flush</p> <p>(c) Dry cleaning - No, n/a for this process</p> <p>(d) Optimised design and construction of equipment and process areas – Yes, all machinery/equipment is designed specifically for the intended product. Food grade product</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
			so food grade chemicals and lubricants used throughout.
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 this information and we are not satisfied the operator has demonstrated compliance with BATc 9.</p> <p>The Operator has stated that refrigerants have been reviewed and replacements have been completed during 2023 in line with refrigerant gas guidance. However, we haven't received any supporting documents. We have included improvement condition IC8 to achieve compliance.</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 has stated that they are implementing the following techniques:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion - Yes product waste is sent off site for anaerobic digestion. (b) Use of residues - No, n/a to this process. (c) Separation of residues - No. Only residues are from CIP - these go direct to onsite ETP for pH correction prior to release to sewer. (d) Recovery and reuse of residues from the pasteuriser - No, n/a as closed can pasteurisation; no residues emitted

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>(e) Phosphorus recovery as struvite - No, n/a to this process</p> <p>(f) Use of waste water for land spreading - No, n/a to this process - trade effluent discharged to sewer.</p>
11	<p>Waste water buffer storage 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 has stated that Three 10,000L buffer tanks are located on site prior to pH correction. Combined capacity of 30,000L can be isolated to contain emissions to be tanked away as required.</p>
12	<p>Emissions to water – treatment In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. Preliminary, primary and general treatment (a) Equalisation (b) Neutralisation (c) Physical separate (eg screens, sieves, primary settlement tanks etc) Aerobic and/or anaerobic treatment (secondary treatment) (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc) (e) Nitrification and/or denitrification (f) Partial nitrification - anaerobic ammonium oxidation Phosphorus recovery and/or removal (g) Phosphorus recovery as struvite (h) Precipitation</p>	NA	<p>We are satisfied that BATc 12 is not applicable to this Installation.</p> <p>The operator has stated that There are no emissions to water other than uncontaminated surface water drainage (via interceptor) at SW1 and SW2. No parameters are set for monitoring within the EP.</p> <p>Emissions to sewer undergo pH correction prior to release from the installation.</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										
	(i) Enhanced biological phosphorus removal Final solids removal (j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation												
12	<p>Emissions to water – treatment BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</p> <table border="1" data-bbox="277 676 1086 999"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL ⁽¹⁵⁾ ⁽¹⁶⁾ (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) ⁽¹⁷⁾ ⁽¹⁸⁾</td> <td>25-100 mg/l ⁽¹⁹⁾</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l ⁽²⁰⁾</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l ⁽²¹⁾ ⁽²²⁾</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l ⁽²³⁾</td> </tr> </tbody> </table> <p>(16) The BAT-AELs may not apply to the production of citric acid or yeast (17) No BAT-AEL applies for biochemical oxygen demand (BOD). As an indication, the yearly average BOD5 level in the effluent from a biological waste water treatment plant will generally be ≤ 20 mg/l. (18) The BAT-AEL for COD may be replaced by a BAT-AEL for TOC. The correlation between COD and TOC is determined on a case-by-case basis. The BAT-AEL for TOC is the preferred option because TOC monitoring does not rely on the use of very toxic compounds. (20) The lower end of the range is typically achieved when using filtration (e.g. sand filtration, microfiltration, membrane bioreactor), while the upper end of the range is typically achieved when using sedimentation only. (21) The upper end of the range is 30 mg/l as a daily average only if the abatement efficiency is ≥ 80 % as a yearly average or as an average over the production period. (22) The BAT-AEL may not apply when the temperature of the waste water is low (e.g. below 12 °C) for prolonged periods.</p>	Parameter	BAT-AEL ⁽¹⁵⁾ ⁽¹⁶⁾ (daily average)	Chemical oxygen demand (COD) ⁽¹⁷⁾ ⁽¹⁸⁾	25-100 mg/l ⁽¹⁹⁾	Total suspended solids (TSS)	4-50 mg/l ⁽²⁰⁾	Total nitrogen (TN)	2-20 mg/l ⁽²¹⁾ ⁽²²⁾	Total phosphorus (TP)	0,2-2 mg/l ⁽²³⁾	NA	<p>We are satisfied that BATc 12 is not applicable to this Installation.</p> <p>There is no direct discharge to a water body. All treated waste water is discharged directly to sewer.</p>
Parameter	BAT-AEL ⁽¹⁵⁾ ⁽¹⁶⁾ (daily average)												
Chemical oxygen demand (COD) ⁽¹⁷⁾ ⁽¹⁸⁾	25-100 mg/l ⁽¹⁹⁾												
Total suspended solids (TSS)	4-50 mg/l ⁽²⁰⁾												
Total nitrogen (TN)	2-20 mg/l ⁽²¹⁾ ⁽²²⁾												
Total phosphorus (TP)	0,2-2 mg/l ⁽²³⁾												
13	<p>Noise management plan 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</p>	NA	<p>We are satisfied that BATc 13 is not applicable to this Installation.</p> <p>The operator has stated that no noise nuisance issues recorded for the installation.</p>										

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	<p>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. 		<p>The Installation has not received any noise complaints during operation by Refresco; as such no noise nuisance at sensitive receptors is expected.</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 has stated that Equipment with potential for noise emissions is located internally with only FLT's, shunt vehicle, compactor and storage tanks outside. Low noise equipment specified for new installations. No noise nuisance issues recorded for the installation.</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. - 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. 	NA	<p>We are satisfied that BATc 15 is not applicable to this Installation.</p> <p>The operator has stated that No odour nuisance issues recorded for the installation. The Installation does not have any significant odour emission sources. The installation has not received any odour complaints during operation by Refresco; as such no odour nuisance at sensitive receptors is expected.</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												
SOFT DRINKS AND NECTAR/ JUICE MADE FROM PROCESSED FRUIT AND VEGETABLES BAT CONCLUSIONS (BAT 33)															
33	<p>Energy efficiency – Soft drinks and nectar/ juice made from processed fruit and vegetables</p> <p>In order to increase energy efficiency, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below.</p> <table border="1" data-bbox="277 544 1227 890"> <thead> <tr> <th data-bbox="277 544 439 592">Technique</th> <th data-bbox="439 544 725 592">Description</th> <th data-bbox="725 544 1227 592">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 592 439 683">(a)</td> <td data-bbox="439 592 725 683">Single pasteuriser for nectar/juice production</td> <td data-bbox="725 592 1227 683">Use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers.</td> </tr> <tr> <td data-bbox="277 683 439 820">(b)</td> <td data-bbox="439 683 725 820">Hydraulic sugar transportation</td> <td data-bbox="725 683 1227 820">Sugar is transported to the production process with water. As some of the sugar is already dissolved during the transportation, less energy is needed in the process for dissolving sugar.</td> </tr> <tr> <td data-bbox="277 820 439 890">(c)</td> <td data-bbox="439 820 725 890">Energy-efficient homogeniser for nectar/juice production</td> <td data-bbox="725 820 1227 890">See BAT 21b.</td> </tr> </tbody> </table> <p>Applicable in addition to BAT6</p> <p>See Tables below for the EPL figures</p>	Technique	Description	Applicability	(a)	Single pasteuriser for nectar/juice production	Use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers.	(b)	Hydraulic sugar transportation	Sugar is transported to the production process with water. As some of the sugar is already dissolved during the transportation, less energy is needed in the process for dissolving sugar.	(c)	Energy-efficient homogeniser for nectar/juice production	See BAT 21b.	CC	<p>The operator has provided information to support compliance with BATc 33. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 33.</p> <p>The operator has stated that Refresco accepts granulated sugar onto site which are stored in two silos. Solid sugar is then screw transferred to a dissolving tank before being pumped hydraulically to process. The installation operates a once through pasteurisation process. Only homogenisation on site is during syrup mixing - a specific element of the process.</p>
Technique	Description	Applicability													
(a)	Single pasteuriser for nectar/juice production	Use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers.													
(b)	Hydraulic sugar transportation	Sugar is transported to the production process with water. As some of the sugar is already dissolved during the transportation, less energy is needed in the process for dissolving sugar.													
(c)	Energy-efficient homogeniser for nectar/juice production	See BAT 21b.													
Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector Environmental Performance Levels															
EPL	<p>Environmental Performance Level – Energy consumption for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</p> <table border="1" data-bbox="277 1209 1182 1299"> <thead> <tr> <th data-bbox="277 1209 636 1257">Unit</th> <th data-bbox="636 1209 1182 1257">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 1257 636 1299">MWh/hl of products</td> <td data-bbox="636 1257 1182 1299">0.01 – 0.035</td> </tr> </tbody> </table>	Unit	Specific energy consumption (yearly average)	MWh/hl of products	0.01 – 0.035		<p>The current performance is 0.011 MWh/hl, which is within the specified range.</p>								
Unit	Specific energy consumption (yearly average)														
MWh/hl of products	0.01 – 0.035														

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				
EPL	<p>Environmental Performance Level – Specific waste water discharge for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</p> <table border="1" data-bbox="277 368 1182 459"> <tr> <td data-bbox="277 368 636 416">Unit</td> <td data-bbox="636 368 1182 416">Specific waste water discharge (yearly average)</td> </tr> <tr> <td data-bbox="277 416 636 459">m³/hl of products</td> <td data-bbox="636 416 1182 459">0.08 – 0.20</td> </tr> </table>	Unit	Specific waste water discharge (yearly average)	m ³ /hl of products	0.08 – 0.20		The current performance is 0.07 m ³ /hl, which is within the specified range.
Unit	Specific waste water discharge (yearly average)						
m ³ /hl of products	0.08 – 0.20						

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

Updating permit during permit review consolidation

- Activity name
- Introductory note
- 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.

Capacity 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 Operator has completed a H1 assessment of emissions for typical figures of production at the time of permitting.

The existing H1 assessment of emissions to water remains valid for the 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.	Boiler 1: 2.0 MWth Boiler 2: 3.8 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boilers
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural Gas 100%
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.	Boiler 1: Jul 01 Boiler 2: New – not yet installed

For existing MCP with a rated thermal input of less than or equal to 5 MW, 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 during the original application received on 11/03/2022. 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.

The Operator submitted a summary report which referenced the site condition report and baseline report. We have reviewed the information and we consider that it adequately describes the current condition of the soil and groundwater. Consequently, we are satisfied that the baseline conditions have not changed.

We consider the risk assessment is satisfactory as it adequately describes the current condition of the site.

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 not identified any hazardous substances used / stored at the installation.

The operator is required to submit a relevant hazardous substances monitoring plan for review to the Environment Agency via improvement condition IC6.

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 stated that the installation is not likely to be or has previously not been affected by climate change.

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	Date
IC5	During commissioning, the operator shall carry out tests to assess whether the air monitoring location for the new boiler A10 meet the requirements of BS EN 15259 and supporting Method Implementation Document (MID). A written report shall be submitted for approval setting out the results and conclusions of the assessment including where necessary proposals for improvements to meet the requirements. Where notified in writing by the Environment Agency that the requirements are not met, the operator shall submit proposals or further proposals for rectifying this in accordance with the time scale in the notification. The proposals shall be implemented in accordance with the Environment Agency’s written approval.	Complete

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
IC6	<p>The operator shall submit to the Environment Agency for approval a risk assessment considering the possibility of soil and groundwater contamination at the installation where the activity involves the use, production or release of a hazardous substances (as defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures).</p> <p>A stage 1-3 assessment should be completed (as detailed within the EC Commission Guidance 2014/C 136/-3) as follows; Stage 1 – Identify hazardous substance(s) used / stored on site. Stage 2 – Identify if the hazardous substance(s) are capable of causing pollution. If they are capable of causing pollution, they are then termed Relevant Hazardous Substances (RHS). Stage 3 – Identify if pollution prevention measures & drains are fit for purpose in areas where hazardous substances are used / stored.</p> <p>If the outcomes of Stage 3 identifies that pollution of soil / ground water to be possible. The operator shall produce and submit a monitoring plan to the Environment Agency for approval detailing how the substance(s) will be monitored to demonstrate no pollution. The operator shall commence monitoring of the RHS within a timescale as agreed by the Environment Agency.</p>	12 months from date of permit issue
IC7	The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the ‘Narrative’ BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following:	3 months from date of issue or as agreed in

	<ul style="list-style-type: none"> • Methodology applied for achieving BAT • Demonstrating that BAT has been achieved. <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 6 Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>writing by the Environment Agency</p>
<p>IC8</p>	<p>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.</p> <p>To demonstrate compliance against BAT 9, the operator shall produce a plan for the onsite refrigerant system(s) at the installation. The plan is to be assessed by the Environment Agency and shall be incorporated within the existing environmental management system.</p> <p>The plan should include, but not be limited to, the following:</p> <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. 	<p>3 months from date of issue or as agreed in writing by the Environment Agency</p>