

## Permitting Decisions- Variation

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We have decided to grant the variation for Coca-Cola Europacific Partners Wakefield, operated by Coca-Cola Europacific Partners Great Britain Limited (CCEP).

The variation number is EPR/SP3439BU/V008.

We have also carried out an Environment Agency initiated variation to the permit, referenced as EPR/SP3439BU/V007. We have updated some of the permit conditions following a statutory review of the permits in the Food, Drink & Milk industry sector.

### **Changes introduced by this variation made by the operator (V008)**

The changes applied for in V008 include the consolidation of EPR/BP3120PB (Previously EPR/KP3435SX – issued to Yorkshire Water) into the site permit EPR/SP3439BU. EPR/KP3435SX was operated by Yorkshire water and transferred to CCEP in March 2022 under the new permit number EPR/BP3120PB, this permit is now incorporated under EPR/SP3439BU and as such reference to EPR/BP3120PB has been removed from the introductory note of the permit.

In addition to the consolidated of the above permits CCEP proposed upgrading the existing ETP to modernise and improve the plant. There are 2 new emission point from a new biogas boiler (0.6 MWth) and scrubber to remove hydrogen chloride which will be operated infrequently. This is in addition to the incorporation of existing emission points from the transferred permit. Emission limit values for on-site medium combustion plants have also been altered due to bring them in line with the medium combustion plant directive due to this variation.

### **Changes introduced by this variation notice/statutory review (V007)**

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

We have implemented the requirements of the Medium Combustion Plant directive and incorporated post-dated requirements for 2030 for the existing back-up boiler, the main boiler is already subject to the requirements of the Medium Combustion Plant directive.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

## Purpose of this document

This decision document provides a record of the decision-making process. It

- 1) highlights [key issues](#) in the determination
- 2) summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account

**Points 1 and 2 relate to those aspects of the variation which have been applied for by the Operator (EPR/SP3439BU/V008), and are contained within Part 1 of this decision document**

- 3) explains why we have also made an Environment Agency initiated variation

**Point 3 relates to our statutory Food, Drink and Milk review of the permit (EPR/SP3439BU/V007) and is described in Part 2 of this decision document**

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.  
Read the permitting decisions in conjunction with the environmental permit and the variation notice.

# Key issues of the decision

## Air emissions and air quality

There has been an addition of 2 emission points to the site permit as well as the inclusion of the previous emissions from the existing effluent treatment plant. Treating the site as aggregated the overall thermal capacity of the site has not increased significantly (increase of 0.6 MWth) and the scrubber is to be operated infrequently as such the impact can be determined as negligible.

The operator submitted an air quality assessment to support their application for the inclusion of the new biogas boiler and scrubber. We have reviewed the assessment and discussed the outcomes with air quality technical specialists. We agree with the conclusions of the assessment that there will be no significant impact from the new biogas boiler and HCl scrubber. Our assessment also included the potential impact the addition of the bio-gas boiler could have on the Wakefield City AQMA, we determined that the addition of the small biogas boiler will not undermine the objectives set out in the plan.

The submitted Air Quality Assessment, titled “Wakefield Plant, air Quality Dispersion Modelling Report” dated March 2023, also looked to update the emission limit values (ELV's) for the existing combustion plant on site to match those as listed within the Medium Combustion Plant Directive. The table below sets out the current permit limit and the proposed limits as listed within the MCPD. The operator applied to have the emission limit values (ELVs) for oxides of nitrogen, on the on-site MCPs increased as shown in the table below:

Emission point	Source	Parameter	Existing Limit	Proposed New Limit
A1a	Boiler 3 – 6.45 MWth Natural gas boiler	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	67 mg/m <sup>3</sup>	200 mg/m <sup>3</sup>
A1b	Boiler 2 – 4.44 MWth Natural gas boiler	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	137 mg/m <sup>3</sup>	250 mg/m <sup>3</sup>
A1d	Boiler 1 – 2.15 MWth Natural gas boiler	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	124 mg/m <sup>3</sup>	250 mg/m <sup>3</sup>

In line with the Environment Agency's guidance ([Air emissions risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit)) we require applicants to submit detailed air dispersion modelling and impact assessment to assess the predicted impacts on both human receptors (for example dwellings, work places and parks) and ecological sites.

A methodology for risk assessment of point source emissions to air is set out in our guidance *Air emissions risk assessment for your environmental permit* and has the following steps:

- Describe emissions and receptors
- Calculate process contributions
- Screen out insignificant emissions that do not warrant further investigation using the Environment Agency's screening tool
- Decide if detailed air modelling is needed
- Assess emissions against relevant standards
- Summarise the effects of emissions.

We use this methodology to assess the impacts on air quality in the determination of applications.

The methodology uses a concept of “process contribution (PC)”, which is the estimated concentration of emitted substances after dispersion into the receiving environmental media at the point where the

magnitude of the concentration is greatest. The methodology provides a simple method of calculating PC, primarily for screening purposes, and for estimating process contributions where environmental consequences are relatively low. It is based on using dispersion factors. These factors assume worst case dispersion conditions with no allowance made for thermal or momentum plume rise and so the process contributions calculated are likely to be an overestimate of the actual maximum concentrations. More accurate calculation of process contributions can be achieved by mathematical dispersion models, which take into account relevant parameters of the release and surrounding conditions, including local meteorology.

Air dispersion modelling enables the PC to be predicted at any environmental receptor that might be impacted by the emissions from a plant. Once short-term and long-term PCs have been calculated in this way, they are compared with Environmental Standards (ES).

PCs are considered insignificant if:

- the long-term process contribution is less than 1% of the relevant ES; and
- the short-term process contribution is less than 10% of the relevant ES.

The long term 1% process contribution insignificance threshold is based on the judgements that:

- It is unlikely that an emission at this level will make a significant contribution to air quality; and
- the threshold provides a substantial safety margin to protect health and the environment.

The short term 10% process contribution insignificance threshold is based on the judgements that:

- spatial and temporal conditions mean that short term process contributions are transient and limited in comparison with long term process contributions; and
- the threshold provides a substantial safety margin to protect health and the environment.

Where an emission is screened out in this way, we would normally consider that the applicant's proposals for the prevention and control of the emission to be acceptable. However, where an emission cannot be screened out as insignificant, it does not mean it will necessarily be significant.

For those pollutants which do not screen out as insignificant, we determine whether exceedances of the relevant ES are likely. This is done through detailed audit and review of the applicant's air dispersion modelling, taking background concentrations and modelling uncertainties into account.

Where the PC is greater than these thresholds, the assessment must continue to determine the impact by considering the predicted environmental concentration (PEC). The PEC is the combination of the PC substance to air and the background concentration of the substance which is already present in the environment.

The PECs can be considered 'not significant' if the assessment has shown that both the following apply:

- proposed emissions comply with associated emission levels (AELs) or the equivalent requirements where there is no AEL; and
- the resulting PECs won't exceed 100% of the environmental standards.

For plant combusting natural gas as fuel, the key pollutant within the combustion gas that requires consideration is nitrogen dioxide. The applicant's model looks at the impacts from oxides of nitrogen. The findings can be seen below;

Concentrations of NO <sub>2</sub> at the sensitive receptor of maximum prediction					
Pollutant	ES (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PC as % of ES	Background (long term) (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> ) (PC + long-term background)
NO <sub>2</sub> (annual)	40	2.11 (Location R7) <small>Note 1</small>	5.3%	14.3	16.45
NO <sub>2</sub> (99.79th %ile of hourly average)	200	5.86 (Location R7) <small>Note 1</small>	2.9%	28.6 <small>note 2</small>	34.46
PC – Process Contribution; ES - Environment Standard; PEC – Predicted Environmental Concentration Note 1 – The location with the highest annual and short term predicted concentration is R7 (431453, 424841) Note 2 – the short term background concentration is considered to be twice the long term concentration.					

The table above shows that the long term (annual) process contributions (PC) are greater than 1% of the environmental standard (ES), however the short term PC is less than 10% of the short term ES. We can therefore consider the short term PC as being insignificant and no further assessment is required.

As the long term PC is greater than 1% of the ES further assessment is required to determine the impact of the long term emissions on the predicted environmental concentration (PEC). The long term PEC is below the ES, as such we consider that the long term emissions of NO<sub>2</sub> are unlikely to breach the long term ES.

We agree with the applicant’s conclusions that the lowering of ELVs for the onsite MCPs is unlikely to have a significant impact in obtaining the air quality standards for NO<sub>2</sub> at the discrete receptor locations in the area.

The new ELVs, in line with MCPD, have been incorporated into the permit under table S3.1. In addition the new limit for the CHP has also been included to bring it into compliance with MCPD by 2030.

# **Decision considerations**

## **Confidential information**

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

## **Identifying confidential information**

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

## **The regulated facility**

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation' and Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

## **The site**

The operator has provided a plan which we consider to be satisfactory. It shows the extent of the site of the facility.

The plan is included in the permit.

## **Nature conservation, landscape, heritage and protected species and habitat designations**

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

The site is within the screening distances of one local nature reserve and one local wildlife site, the impact on these has been considered. We consider that the impact from the new biogas boiler will be insignificant.

We have not consulted Natural England. The decision was taken in accordance with our guidance.

## **Environmental risk**

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

## **General operating techniques**

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

## **Changes to the permit conditions due to an Environment Agency initiated variation**

We have varied the permit as part of the Food, Drink & Milk Permit Review.

## **Improvement programme**

Based on the information on the application, we consider that we need to include an improvement programme.

As part of the Food, Drink & Milk Permit review we have included an improvement programme to ensure that the Operator performs a detailed CIRIA 736 risk assessment of the Primary, Secondary and Tertiary containment on site, specifically in relation to the bunding of the effluent treatment plant. Where the CIRA guidance cannot be met justification must be provided and alternative containment arrangements established, as agreed in writing by the Environment Agency. See Annex 3 below for further details.

## **Emission limits**

The ELV for the on-site CHP (A1c) has been amended to fall in line with the MCPD, the new emission limit value of 190 mg/m<sup>3</sup> will apply from 2030. All other ELV have been retained from the previous variation (V005). The new boiler is less than 1MWth and as such does not require monitoring as per the Medium combustion plant directive.

## **Monitoring**

We have decided that monitoring should be added for the emissions of Carbon Monoxide from the existing boilers (A1a-d, A11 and A12) as per the Medium combustion plant directive.

We have added the appropriate monitoring for the emergency flare (A15) associated with the Anaerobic digestion plant, this will be monitored if the flare should operate more than 10% of the year (876 hours).

All previous monitoring incorporated into the permit has been retained.

These monitoring requirements have been imposed in order for the operator to demonstrate compliance with the emission limits specified in the permit. The operator will carry out monitoring in accordance with the relevant methods specified in our guidance M5.

We made these decisions in accordance with MCP and SG technical guidance: Medium Combustion Plant guidance: <https://www.gov.uk/guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply>

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

## Reporting

We have added reporting in the permit for emissions of Carbon Monoxide from the existing boilers (A1a-d, A11 and A12).

We made these decisions in accordance with the requirements of the Medium Combustion Plant Directive for medium combustion plants with a rated thermal input equal to or greater than 1MW and less than or equal to 20MW.

We made these decisions in accordance with the MCP and SG technical guidance:

Medium Combustion Plant Guidance: <https://www.gov.uk/guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply>

We have added the appropriate reporting for the emergency flare (A15) associated with the Anaerobic digestion plant, this will be monitored if the flare should operate more than 10% of the year (876 hours).

## Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

## Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.



## Part 2

# 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/SP3439BU  
The Operator is:                        Coca-Cola Europacific Partners Great Britain Limited  
The Installation is:                    Coca-Cola Europacific Partners Wakefield  
This Variation Notice number is:   EPR/SP3439BU/V007

### 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 4<sup>th</sup> 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 and any changes to the operation of the installation.

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 09/11/2021 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 31/03/2022.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review.

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 22/06/2023, this was regarding: use of hazardous substances, production capacity and the site condition report. 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

In addition to the BAT Conclusions for the Food, Drink and Milk Industries; the following BAT Conclusions also apply (as “secondary” BREF BAT Conclusions) due to the site activities:

- Waste Treatment BAT Conclusions, published 10<sup>th</sup> August 2018 (relevant to FDM sites undertaking Anaerobic Digestion).

BAT 15, 16, 21 & 38.

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
<b>GENERAL BAT CONCLUSIONS (BAT 1-15)</b>			
1	<p><b>Environmental Management System - Improve overall environmental performance.</b></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><b>EMS Inventory of inputs &amp; outputs. Increase resource efficiency and reduce emissions.</b></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 an extensive EMS which covers resource efficiency and reducing emissions, this is accredited to ISO 140001</p>
3	<p><b>Monitoring key process parameters at key locations for emissions to water.</b></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 treats process effluent on site before discharging the treated effluent to sewer. In order to meet their discharge consent they continuously monitor and trend, pH, flow and TOC. pH is also monitored before entering they effluent treatment plant to enable pH correction.</p>
4	<p><b>Monitoring emissions to water to the required frequencies and standards.</b></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</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this 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
	not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.		No direct discharges are made to water of process effluent.
5	<p><b>Monitoring channelled emissions to air to the required frequencies and standards.</b></p> <p>BAT is to monitor channelled emissions to air with at least the frequency given (refer to BAT5 table in BATc) and in accordance with EN standards.</p>	<b>NA</b>	<p>We are satisfied that BATc 5 is not applicable to this Installation.</p> <p>None of the activities listed under BATc5 are carried out on site and thus is not applicable.</p>
6	<p><b>Energy Efficiency</b></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>	<b>CC</b>	<p>The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 6.</p> <p>The operator has submitted their energy efficiency plan and we have concluded that it meets the standard required for BATc 6. They use a variety of techniques as described in the BATCs table, this includes:</p> <ul style="list-style-type: none"> <li>• energy efficient motors,</li> <li>• heat recovery,</li> <li>• energy efficient lighting,</li> <li>• process control systems,</li> <li>• reducing compressed air leaks through annual audits,</li> <li>• reducing heat losses through insulation of pipework and equipment,</li> <li>• variable speed drives,</li> <li>• reuse of steam condensate.</li> </ul>
7	<p><b>Water and wastewater minimisation</b></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. for detail of each technique, refer BAT 7 table in BATc</p> <p>(a) water recycling and/or reuse</p> <p>(b) Optimisation of water flow</p>	<b>CC</b>	<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>

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>(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>		<p>The operator monitors their water usage regularly and use a range of techniques under BATc7 this includes:</p> <p>(a) water recycling and/or reuse</p> <p>(c) Optimisation of water nozzles and hoses</p> <p>(d) Segregation of water streams</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>
8	<p><b>Prevent or reduce the use of harmful substances</b></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> <p>for detail of each technique, refer BAT 8 table in BATc</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 demonstrated that they select their cleaning products properly and have CIP audits carried out regularly. CIP is automated and monitored in line with alarms allowing the recovery and reuse of cleaning chemicals. No chemicals are used that have been identified under WFD (2000/60/EC)</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
9	<p><b>Refrigerants</b></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>	CC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The operator has provided a list of refrigerants used on site, a number of these do have a high GWP however they have demonstrated that they are reducing the use of high GWP refrigerants and have a strict policy on purchasing, maintenance and training to reduce the use of high GWP and ODS. A robust plan is in place to ensure all high GWP fridges and freezers are replaced on site as soon as is practicable.</p>
10	<p><b>Resource efficiency</b></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"> <li>(a) Anaerobic digestion</li> <li>(b) Use of residues</li> <li>(c) Separation of residues</li> <li>(d) Recovery and reuse of residues from the pasteuriser</li> <li>(e) Phosphorus recovery as struvite</li> <li>(f) Use of waste water for land spreading</li> </ul>	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 uses anaerobic digestion on site.</p>
11	<p><b>Waste water buffer storage</b></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 has demonstrated that they have a number of procedures and equipment on site to prevent any uncontrolled emission to water, in addition these procedures enable the operator to control any leaks and or emissions that may arise. All key staff are appropriately trained in the use of spill kits and these are</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
			located across the site. Inspections are carried out frequently on site and interceptors are located in key positions. Tanks are fitted with high level probes and auto stop fill valves.
12	<p><b>Emissions to water – treatment</b></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> <p>for detail of each technique, refer BAT 12 table 1</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 uses pH correction to neutralize waste water before it is discharged to sewer for further treatment.</p>
12	<p><b>Emissions to water – treatment</b></p> <p><b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b></p>	NA	<p>We are satisfied that BATc 12 is not applicable to this Installation.</p> <p>The site does not discharge directly to a water body and thus the AELs are not applicable.</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" data-bbox="280 252 1086 571"> <thead> <tr> <th data-bbox="280 252 627 316">Parameter</th> <th data-bbox="627 252 1086 316">BAT-AEL <sup>(15)</sup> <sup>(16)</sup> (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 316 627 379">Chemical oxygen demand (COD) <sup>(17)</sup> <sup>(18)</sup></td> <td data-bbox="627 316 1086 379">25-100 mg/l <sup>(19)</sup></td> </tr> <tr> <td data-bbox="280 379 627 443">Total suspended solids (TSS)</td> <td data-bbox="627 379 1086 443">4-50 mg/l <sup>(20)</sup></td> </tr> <tr> <td data-bbox="280 443 627 507">Total nitrogen (TN)</td> <td data-bbox="627 443 1086 507">2-20 mg/l <sup>(21)</sup> <sup>(22)</sup></td> </tr> <tr> <td data-bbox="280 507 627 571">Total phosphorus (TP)</td> <td data-bbox="627 507 1086 571">0,2-2 mg/l <sup>(23)</sup></td> </tr> </tbody> </table> <p data-bbox="280 582 884 606">(16) The BAT-AELs may not apply to the production of citric acid or yeast</p> <p data-bbox="280 614 1220 654">(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.</p> <p data-bbox="280 662 1220 726">(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.</p> <p data-bbox="280 734 1176 774">(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.</p> <p data-bbox="280 782 1220 829">(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.</p> <p data-bbox="280 837 1220 877">(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 <sup>(15)</sup> <sup>(16)</sup> (daily average)	Chemical oxygen demand (COD) <sup>(17)</sup> <sup>(18)</sup>	25-100 mg/l <sup>(19)</sup>	Total suspended solids (TSS)	4-50 mg/l <sup>(20)</sup>	Total nitrogen (TN)	2-20 mg/l <sup>(21)</sup> <sup>(22)</sup>	Total phosphorus (TP)	0,2-2 mg/l <sup>(23)</sup>		
Parameter	BAT-AEL <sup>(15)</sup> <sup>(16)</sup> (daily average)												
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Total phosphorus (TP)	0,2-2 mg/l <sup>(23)</sup>												
13	<p data-bbox="280 901 593 925"><b>Noise management plan</b></p> <p data-bbox="280 933 1220 1061">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 data-bbox="280 1069 1220 1276" style="list-style-type: none"> <li>- a protocol containing actions and timelines;</li> <li>- a protocol for conducting noise emissions monitoring;</li> <li>- a protocol for response to identified noise events, eg complaints;</li> <li>- 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.</li> </ul>	NA	<p data-bbox="1523 901 2083 957">We are satisfied that BATc 13 is not applicable to this Installation.</p> <p data-bbox="1523 1005 2083 1101">There are no reports of noise nuisances at sensitive reports and thus a noise management plan is not required.</p>										
14	<p data-bbox="280 1300 526 1324"><b>Noise management</b></p> <p data-bbox="280 1332 1220 1396">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> <p data-bbox="280 1404 884 1428">(a) Appropriate location of equipment and buildings</p>	CC	<p data-bbox="1523 1300 2083 1444">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>										

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												
	(b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement for detail of each technique, refer BAT 14 table in BATCs		The operator utilizes a range of techniques to minimise noise and a noise assessment is carried out on site annually.												
15	<b>Odour Management</b> 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: - 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	We are satisfied that BATc 15 is not applicable to this Installation.  There are no reports of odour nuisances at sensitive reports and thus an odour management plan is not required.												
<b>SOFT DRINKS AND NECTAR/ JUICE MADE FROM PROCESSED FRUIT AND VEGETABLES BAT CONCLUSIONS (BAT 33)</b>															
33	<b>Energy efficiency – Soft drinks and nectar/ juice made from processed fruit and vegetables</b>  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. <table border="1" data-bbox="277 1098 1227 1442"> <thead> <tr> <th data-bbox="277 1098 439 1145">Technique</th> <th data-bbox="439 1098 725 1145">Description</th> <th data-bbox="725 1098 1227 1145">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 1145 439 1235">(a)</td> <td data-bbox="439 1145 725 1235">Single pasteuriser for nectar/juice production</td> <td data-bbox="725 1145 1227 1235">Use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers.</td> </tr> <tr> <td data-bbox="277 1235 439 1378">(b)</td> <td data-bbox="439 1235 725 1378">Hydraulic sugar transportation</td> <td data-bbox="725 1235 1227 1378">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 1378 439 1442">(c)</td> <td data-bbox="439 1378 725 1442">Energy-efficient homogeniser for nectar/juice production</td> <td data-bbox="725 1378 1227 1442">See BAT 21b.</td> </tr> </tbody> </table>	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	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.  The operator uses method (b) demonstrated in the table under BATc 33. As this is the only method which is applicable to the site we are satisfied that the operator is meeting the requirements for BATc 33, in addition to the techniques utilised under BATc 6.
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.													

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				
	Applicable in addition to BAT6  See Tables below for the EPL figures						
<b>Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector Environmental Performance Levels</b>							
EPL	<b>Environmental Performance Level – Energy consumption for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</b>  <table border="1" data-bbox="277 536 1182 628"> <thead> <tr> <th data-bbox="277 536 636 580">Unit</th> <th data-bbox="636 536 1182 580">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 580 636 628">MWh/hl of products</td> <td data-bbox="636 580 1182 628">0.01 – 0.035</td> </tr> </tbody> </table>	Unit	Specific energy consumption (yearly average)	MWh/hl of products	0.01 – 0.035	CC	<p>The operator has provided information to support compliance with BAT-EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BAT-EPL.</p> <p>The operator has a yearly average specific energy consumption of 0.0065 MWh/hl of product. This falls below the BAT target. The operator also undertakes monthly reviews to ensure they are meeting energy targets.</p>
	Unit	Specific energy consumption (yearly average)					
MWh/hl of products	0.01 – 0.035						
EPL	<b>Environmental Performance Level – Specific waste water discharge for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</b>  <table border="1" data-bbox="277 941 1182 1034"> <thead> <tr> <th data-bbox="277 941 636 986">Unit</th> <th data-bbox="636 941 1182 986">Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 986 636 1034">m<sup>3</sup>/hl of products</td> <td data-bbox="636 986 1182 1034">0.08 – 0.20</td> </tr> </tbody> </table>	Unit	Specific waste water discharge (yearly average)	m <sup>3</sup> /hl of products	0.08 – 0.20	CC	<p>The operator has provided information to support compliance with BAT-EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BAT-EPL.</p> <p>The operators currently has a Specific waste water discharge of 0.0262 m<sup>3</sup>/hl of product (yearly average). This demonstrates that they are well below the BAT target. In addition to this they undertake monthly reviews.</p>
	Unit	Specific waste water discharge (yearly average)					
m <sup>3</sup> /hl of products	0.08 – 0.20						

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												
	<b>Summary of BAT Conclusion requirement for Waste Treatment</b>														
15	<p>BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below.</p> <table border="1" data-bbox="277 434 1220 754"> <thead> <tr> <th data-bbox="277 434 333 474"></th> <th data-bbox="333 434 584 474">Technique</th> <th data-bbox="584 434 969 474">Description</th> <th data-bbox="969 434 1220 474">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 474 333 644">a.</td> <td data-bbox="333 474 584 644">Correct plant design</td> <td data-bbox="584 474 969 644">This includes the provision of a gas recovery system with sufficient capacity and the use of high-integrity relief valves.</td> <td data-bbox="969 474 1220 644">Generally applicable to new plants. A gas recovery system may be retrofitted in existing plants.</td> </tr> <tr> <td data-bbox="277 644 333 754">b.</td> <td data-bbox="333 644 584 754">Plant management</td> <td data-bbox="584 644 969 754">This includes balancing the gas system and using advanced process control.</td> <td data-bbox="969 644 1220 754">Generally applicable.</td> </tr> </tbody> </table>		Technique	Description	Applicability	a.	Correct plant design	This includes the provision of a gas recovery system with sufficient capacity and the use of high-integrity relief valves.	Generally applicable to new plants. A gas recovery system may be retrofitted in existing plants.	b.	Plant management	This includes balancing the gas system and using advanced process control.	Generally applicable.	NA	<p>We are satisfied that BATc 15 is not applicable to this Installation.</p> <p>As the Anaerobic digestion on site does not fall into the definition of anaerobic digestion under RGN2 the BAT conclusions are not applicable as the AD on site does not produce a stable sanitised material, note 5.4.4 in RGN2 states:</p> <p><i>“Section 1.2, The interpretation and application of Part A(1), 3. Says “anaerobic digestion” means the mesophilic and thermophilic biological decomposition and stabilisation of biodegradable materials which (a) is carried on under controlled anaerobic conditions, (b) produces a methane-rich gas mixture, and (c) results in stable sanitised material that can be applied to land for the benefit of agriculture or to improve the soil structure or nutrients in land.”</i></p> <p>Although the BATc does not apply we have to ensure that the operator is demonstrating that they have appropriate measures in place. The operator confirmed that the plant is of a modern design and is managed appropriately.</p>
	Technique	Description	Applicability												
a.	Correct plant design	This includes the provision of a gas recovery system with sufficient capacity and the use of high-integrity relief valves.	Generally applicable to new plants. A gas recovery system may be retrofitted in existing plants.												
b.	Plant management	This includes balancing the gas system and using advanced process control.	Generally applicable.												

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												
16	<p><b>In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below.</b></p> <table border="1" data-bbox="280 331 1211 842"> <thead> <tr> <th data-bbox="280 331 338 373"></th> <th data-bbox="338 331 584 373">Technique</th> <th data-bbox="584 331 965 373">Description</th> <th data-bbox="965 331 1211 373">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 373 338 533">a.</td> <td data-bbox="338 373 584 533">Correct design of flaring devices</td> <td data-bbox="584 373 965 533">Optimisation of height and pressure, assistance by steam, air or gas, type of flare tips, etc., to enable smokeless and reliable operation and to ensure the efficient combustion of excess gases.</td> <td data-bbox="965 373 1211 533">Generally applicable to new flares. In existing plants, applicability may be restricted, e.g. due to maintenance time availability.</td> </tr> <tr> <td data-bbox="280 533 338 842">b.</td> <td data-bbox="338 533 584 842">Monitoring and recording as part of flare management</td> <td data-bbox="584 533 965 842">This includes continuous monitoring of the quantity of gas sent to flaring. It may include estimations of other parameters (e.g. composition of gas flow, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions (e.g. NO<sub>x</sub>, CO, hydrocarbons), noise). The recording of flaring events usually includes the duration and number of events and allows for the quantification of emissions and the potential prevention of future flaring events.</td> <td data-bbox="965 533 1211 842">Generally applicable.</td> </tr> </tbody> </table>		Technique	Description	Applicability	a.	Correct design of flaring devices	Optimisation of height and pressure, assistance by steam, air or gas, type of flare tips, etc., to enable smokeless and reliable operation and to ensure the efficient combustion of excess gases.	Generally applicable to new flares. In existing plants, applicability may be restricted, e.g. due to maintenance time availability.	b.	Monitoring and recording as part of flare management	This includes continuous monitoring of the quantity of gas sent to flaring. It may include estimations of other parameters (e.g. composition of gas flow, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions (e.g. NO <sub>x</sub> , CO, hydrocarbons), noise). The recording of flaring events usually includes the duration and number of events and allows for the quantification of emissions and the potential prevention of future flaring events.	Generally applicable.	NA	<p>We are satisfied that BATc 16 is not applicable to this Installation.</p> <p>As the Anaerobic digestion on site does not fall into the definition of anaerobic digestion under RGN2 the BAT conclusions are not applicable.</p> <p>Although the BATc does not apply we have to ensure that the operator is demonstrating that they have appropriate measures in place. The operator confirmed that the plant is of a modern design and is managed appropriately with consistent monitoring.</p>
	Technique	Description	Applicability												
a.	Correct design of flaring devices	Optimisation of height and pressure, assistance by steam, air or gas, type of flare tips, etc., to enable smokeless and reliable operation and to ensure the efficient combustion of excess gases.	Generally applicable to new flares. In existing plants, applicability may be restricted, e.g. due to maintenance time availability.												
b.	Monitoring and recording as part of flare management	This includes continuous monitoring of the quantity of gas sent to flaring. It may include estimations of other parameters (e.g. composition of gas flow, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions (e.g. NO <sub>x</sub> , CO, hydrocarbons), noise). The recording of flaring events usually includes the duration and number of events and allows for the quantification of emissions and the potential prevention of future flaring events.	Generally applicable.												

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												
21	<p>In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1).</p> <table border="1" data-bbox="266 363 1238 919"> <thead> <tr> <th data-bbox="266 363 327 405"></th> <th data-bbox="327 363 607 405">Technique</th> <th data-bbox="607 363 1238 405">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="266 405 327 612">a.</td> <td data-bbox="327 405 607 612">Protection measures</td> <td data-bbox="607 405 1238 612">           These include measures such as:           <ul style="list-style-type: none"> <li>— protection of the plant against malevolent acts;</li> <li>— fire and explosion protection system, containing equipment for prevention, detection, and extinction;</li> <li>— accessibility and operability of relevant control equipment in emergency situations.</li> </ul> </td> </tr> <tr> <td data-bbox="266 612 327 743">b.</td> <td data-bbox="327 612 607 743">Management of incidental/accidental emissions</td> <td data-bbox="607 612 1238 743">Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.</td> </tr> <tr> <td data-bbox="266 743 327 919">c.</td> <td data-bbox="327 743 607 919">Incident/accident registration and assessment system</td> <td data-bbox="607 743 1238 919">           This includes techniques such as:           <ul style="list-style-type: none"> <li>— a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections;</li> <li>— procedures to identify, respond to and learn from such incidents and accidents.</li> </ul> </td> </tr> </tbody> </table>		Technique	Description	a.	Protection measures	These include measures such as: <ul style="list-style-type: none"> <li>— protection of the plant against malevolent acts;</li> <li>— fire and explosion protection system, containing equipment for prevention, detection, and extinction;</li> <li>— accessibility and operability of relevant control equipment in emergency situations.</li> </ul>	b.	Management of incidental/accidental emissions	Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.	c.	Incident/accident registration and assessment system	This includes techniques such as: <ul style="list-style-type: none"> <li>— a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections;</li> <li>— procedures to identify, respond to and learn from such incidents and accidents.</li> </ul>	NA	<p>We are satisfied that BATc 21 is not applicable to this Installation.</p> <p>As the Anaerobic digestion on site does not fall into the definition of anaerobic digestion under RGN2 the BAT conclusions are not applicable.</p> <p>Although the BATc does not apply we have to ensure that the operator is demonstrating that they have appropriate measures in place. The operator confirmed that the plant has appropriate protection measures, management system and accident recording.</p>
	Technique	Description													
a.	Protection measures	These include measures such as: <ul style="list-style-type: none"> <li>— protection of the plant against malevolent acts;</li> <li>— fire and explosion protection system, containing equipment for prevention, detection, and extinction;</li> <li>— accessibility and operability of relevant control equipment in emergency situations.</li> </ul>													
b.	Management of incidental/accidental emissions	Procedures are established and technical provisions are in place to manage (in terms of possible containment) emissions from accidents and incidents such as emissions from spillages, firefighting water, or safety valves.													
c.	Incident/accident registration and assessment system	This includes techniques such as: <ul style="list-style-type: none"> <li>— a log/diary to record all accidents, incidents, changes to procedures and the findings of inspections;</li> <li>— procedures to identify, respond to and learn from such incidents and accidents.</li> </ul>													
38	<p>In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters.</p> <p>Implementation of a manual and/or automatic monitoring system to:</p> <ul style="list-style-type: none"> <li>• ensure a stable digester operation;</li> <li>• minimise operational difficulties, such as foaming, which may lead to odour emissions;</li> <li>• provide sufficient early warning of system failures which may lead to a loss of containment and explosions.</li> </ul> <p>This includes monitoring and/or control of key waste and process parameters, e.g.:</p> <ul style="list-style-type: none"> <li>• pH and alkalinity of the digester feed;</li> <li>• digester operating temperature;</li> <li>• hydraulic and organic loading rates of the digester feed;</li> </ul>	NA	<p>We are satisfied that BATc 38 is not applicable to this Installation.</p> <p>As the Anaerobic digestion on site does not fall into the definition of anaerobic digestion under RGN2 the BAT conclusions are not applicable.</p> <p>Although the BATc does not apply we have to ensure that the operator is demonstrating that they have appropriate measures in place. The operator confirmed that the plant is monitored and key waste is controlled.</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
	<ul style="list-style-type: none"> <li>• concentration of volatile fatty acids (VFA) and ammonia within the digester and digestate;</li> <li>• biogas quantity, composition (e.g. H<sub>2</sub>S) and pressure;</li> <li>• liquid and foam levels in the digester.</li> </ul>		

## **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 updated
- 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.

In addition, treating trade effluent by pH adjustment – “Section 5.4 Part A1 (a) (ii) - disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day - (ii) physico-chemical treatment”. This was previously recorded as a directly associated activity however this has been corrected in table S1.1 as a schedule 1 activity.

### **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 remains valid for the revised capacity threshold now placed within table S1.1 of the permit.

### **Waste treatment**

The Operator uses anaerobic digestion (AD) to treat the process effluent from the production of soft drinks prior to discharge to the foul sewer. As a part of the permit review the Environment Agency has taken the opportunity to review the permit conditions for this activity. Where the permit doesn't already include the additional directly associated activities (DAAs) or processing monitoring requirements (Table S3.4) we have amended the permit to include them. The processing monitoring includes monitoring of biogas, leak detection and flare operation.

### **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

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:

#### Combined heat and power (CHP) engines

1. Rated thermal input (MW) of the medium combustion plant.	2.92 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP Engine
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	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.	April 2014

#### Boilers

1. Rated thermal input (MW) of the medium combustion plant.	Boiler 1 – 2.15 MWth	Boiler 2 – 4.44 MWth	Boiler 3 – 6.45 MWth	Steam Generator 1 – 3.924 MWth	Steam Generator 2 – 3.924 MWth	Biogas boiler 0.6 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boilers	Boilers	Boilers	Steam generator	Steam generator	Boiler
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Biogas

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 - July 1989	Boiler 2 – November 1988	Boiler 3 – 2011	Steam Generator 1 – 2019	Steam Generator 2 – 2019	2023
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We have reviewed the information provided and we consider that the declared combustion plant qualify as “existing” medium combustion plant.

Emission limit values for boiler 1, 2 and 3 have been altered due to the applied for variation (V008) to be in line with the MCPD. Furthermore we have included the monitoring and reporting of Carbon monoxide on all boilers in accordance with the MCPD. The new biogas boiler is below the threshold of the MCPD (0.6MWth) and as such no limits or monitoring is applied.

The CHP ELV has been amended to fall in line with the MCPD, the limit of 190 mg/m<sup>3</sup> will apply from 2030.

We have added the appropriate monitoring and reporting for the emergency flare (A15) associated with the Anaerobic digestion plant, this will be monitored if the flare should operate more than 10% of the year (876 hours).

**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 'Coca Cola Application Site Condition Report January 2005' during the original application received in 2005. 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.

### **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 the pollution prevention measures at the installation since the risk assessment was submitted in 2005. 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 prolonged dry weather/ drought, which we consider to be a severe weather event.

The operator has submitted a climate change adaptation plan, which considers, as a minimum the impact of severe weather on the operations within the installation. We consider the climate change adaptation plan to be appropriate for the installation.

### **Containment**

We asked the Operator via the Regulation 61 Notice to provide details of each of the 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 and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

Following discussions with the Area officer, and looking at the commissioning of the new ETP it has been established that a 110% bund wall around the whole plant would not be technically feasible. The operator has been instructed to carry out a detailed CIRIA 736 risk assessment, showing that the plant is low risk and the class of containment required.

In addition they will need to justify that the alternative containment arrangements that they are going to put in place will provide sufficient containment considering the source-pathway-receptor model. As such improvement condition IC8 has been included in the permit to ensure compliance and the completion of this risk assessment.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC8). See Improvement condition(s) in Annex 3 of this decision document.

## Annex 3: Improvement Conditions

Previous improvement conditions marked as complete in the previous permit.

<b>Superseded Improvement Conditions – Removed from permit as marked as “complete”</b>	
<b>Reference</b>	<b>Improvement Condition</b>
IC1	The Operator shall review the containment measures provided for the potentially polluting substances that are stored or held on site. The review shall ensure that all storage tanks, drums and containers within the installation are sited on an impermeable base and within sufficient bunding, as detailed in the Agency’s Pollution Prevention Guidance Note 11 (PPG 11). The assessment shall also take into account the requirements of section 2.2.5 of the Agency Guidance Note IPPC S6.10, Aug 2003, and PPG2. The Operator shall provide the Agency with a written copy of the review and shall implement identified improvements to a timescale agreed with the Agency.
IC2	The Operator shall provide the Agency with a report on the substitution of R22 Refrigerant with less hazardous alternatives. The Operator shall provide the Agency with a written report that includes a timescale for the implementation of any improvements that have been identified.
IC3	The Operator shall carry out a water efficiency audit of the Installation. The assessment shall have regard to the Agency Guidance Note S6.10, August 2003, Section 2.4.3. A summary of the audit shall be sent to the Agency in writing together with a timetable to implement any necessary changes identified.
IC4	The Operator shall notify the agency annually in writing, by means of a status report against the improvements
IC5	The operator shall carry out an assessment of the options for the monitoring and controlling of trade effluent before entry into the ETP. This shall include procedures for alerting YWS of abnormal effluent composition and for the handling/treatment of such effluent. The Operator shall provide the Agency with a written report of the findings of the assessment, that includes a timescale for the implementation of improvements that have been identified.
IC6	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S6.10, August 2003.
IC7	The operator shall undertake and submit to the Environment Agency for technical assessment and approval, an indirect surface water risk assessment for discharges of treated process waters to sewer using our H1 Tool or other similar method for ‘hazardous chemicals and elements’ This should include any priority substances, priority hazardous substances or other pollutants, including specific pollutants listed in the 2015 Water Framework Directive Directions which have operational EQS’s and are likely to be contained within the discharged effluent. Specific substances not within these categories, but which have ecotoxic properties will need to be assessed against a confirmed PNEC (Predicted no effect concentration) to be agreed with the Environment Agency prior to the completion and submission of the H1 risk assessment.

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

<b>Improvement programme requirements</b>		
<b>Reference</b>	<b>Reason for inclusion</b>	<b>Justification of deadline</b>
IC8	<p>The Operator shall undertake a detailed risk assessment of the primary, secondary and tertiary containment at the site and review measures against relevant standard including:</p> <ul style="list-style-type: none"> <li>• CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary, and other measures for industrial and commercial premises.</li> <li>• current containment measures</li> <li>• any deficiencies identified in comparison to relevant standards,</li> <li>• improvements proposed and justifications</li> <li>• time scale for implementation of improvements.</li> </ul> <p>The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency.</p>	12 months from permit issue