

# **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/UP3935LR  
The Operator is:                         Encirc Limited  
The Installation is:                     Elton Beverages  
This Variation Notice number is:   EPR/UP3935LR/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.

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 09/06/2022 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

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

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

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

The Regulation 61 Notice response from the Operator was received on 07/10/2022.

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

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

The Operator initially claimed that certain information was commercially confidential and should be withheld from the public register. We considered the information and determined it was not material to our determination and therefore, was not required to be retained. This was confirmed to the operator and they provided an updated document on 02/11/2023 which removed the information which was not material for our determination.

## 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 further information request on 29/08/2023, relating to BAT6, RHS, MCP, production capacity threshold, and site plan. A copy of the further information request was placed on our public register.

# **3 The legal framework**

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

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

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

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

## Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

**NA – Not Applicable**

**CC – Currently Compliant**

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

**NC – Not Compliant**

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
<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>	<b>CC</b>	<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 an 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>	<b>CC</b>	<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 EMS externally accredited to the ISO14001 standard.</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>	<b>CC</b>	<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>Effluent from the beverages process on site fills the balance tank of the ETP, which controls the flow to the subsequent ETP process (aerobic biological treatment). Key process parameters are monitored at the ETP on three occasions during the day by ETP staff. Discharge of treated effluent from the ETP (via WFH7) flows to the attenuation pond, where it mixes with other site drainage (e.g. from onsite foul water ETPs and the glass manufacturing plant) and is then discharged, via the reed bed, at W7 where it leaves the installation.</p> <p>At both WFH1 and W7 flow and pH are monitored continuously with all other parameters being monitored on a monthly composite sample basis for assessment of compliance to the Environmental Permit consent limits.</p>

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			However, in reality, more frequent monitoring is undertaken by the operator, this additional monitoring data is used for internal monitoring and operational purposes.
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 not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	<b>NA</b>	<p>We are satisfied that BATc 4 is not applicable to this Installation.</p> <p>BAT4 is only applicable to direct discharges to a receiving body of water only. The operator discharges treated process effluent to ground via an attenuation pond and reedbed system, prior to the discharge reaching a water body. These are emission points WHF1 and W7 in the permit.</p> <p>The previous variation V006 addressed emissions to water and included monitoring in table S3.2. We have retained these monitoring requirements in table 3.2 as per the previous variation V006.</p>
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 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>There is no handling of malt and adjunct at the site.</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 an energy efficiency plan which also incorporates sustainability planning. The plan is a <i>CO2 Emissions Reduction and Energy Efficiency Improving Plan (2020-2024)</i>.</p>

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			<p>The plan covers gas and electricity use (reduction targets), capex projects, human factor related projects and strategic projects involving heat recovery systems and raw materials, and CO2 emissions reduction targets. The plan is based on a continuous improvement philosophy. It provides an Improvement Roadmap and a CAPEX plan for the improvement opportunities identified along with a reporting system within the EMS.</p> <p>The site implements the following techniques:</p> <ul style="list-style-type: none"> <li>- Burner regulation and control – this is applied to site boilers which are subject to a regular service contract;</li> <li>- Energy efficient motors - the vast majority of motors used in the process utilise VSDs and are highly efficient;</li> <li>- Economisers are fitted to the boilers to pre-heat the water using heat from the flue gas;</li> <li>- Most internal and external lighting has recently been subject to a programme of replacement with LEDs or other high efficiency equipment. The filling hall lighting is currently in the process of being upgraded;</li> <li>- Boiler blowdown is minimised and only occurs when required through testing of the boiler;</li> <li>- Steam distribution systems are optimised; steam is distributed a 5 bar then decreased locally to 2.5 bar for use which provides higher efficiencies;</li> <li>- The beverages processes controlled by a SCADA system which provides a high level of process control and maximises efficiencies;</li> <li>- Compressed air system leaks are minimised by regular inspection and maintenance with and leaks identified fixed in a timely manner; and</li> <li>- Most hot water / product and steam systems are insulated.</li> </ul>
7	<b>Water and wastewater minimisation</b>	<b>CC</b>	The operator has provided information to support compliance with BATc 7. We have assessed the



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	<p>In order to reduce water consumption and the volume of wastewater 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  (b) Optimisation of water flow  (c) Optimisation of water nozzles and hoses  (d) Segregation of water streams  Techniques related to cleaning operations:  (e) Dry cleaning  (f) Pigging system for pipes  (g) High-pressure cleaning  (h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP)  (i) Low-pressure foam and/or gel cleaning  (j) Optimised design and construction of equipment and process areas  (k) Cleaning of equipment as soon as possible</p>		<p>information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The site has implemented the following techniques to reduce water consumption and the volume of wastewater discharged:</p> <ul style="list-style-type: none"> <li>• Recirculation of water in pasteurisation units.</li> <li>• Cleaning in place (CIP) returns - all CIP loops have been optimised to recycle to agreed end points.</li> <li>• Plant scheduling and planning of processing campaigns so as to minimise the required frequency of CIP etc.</li> <li>• CIP liquor reuse - cleaner CIP liquids are reused for subsequent dirtier cleaning duties /stages of the CIP process in order to minimise water use and effluent generation.</li> <li>• Stream segregation within processing lines; to separate out high COD effluent streams and collect them into IBCs for offsite disposal. This prevents high COD materials from entering the ETP.</li> <li>• Product losses from wine filling activities are recaptured and re- used where possible.</li> <li>• Foam cleaning is used for manual clean down of production areas to minimise water use.</li> <li>• Site surface water stream runoff streams (i.e. rainwater) are segregated from process wastewater and are not transferred to the ETP.</li> </ul>
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  (b) Reuse of cleaning chemicals in cleaning-in-place (CIP)  (c) Dry cleaning  (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 undertakes CIP systems which include the use of industry standard cleaning and disinfection products. Products are recycled and reused within the closed loop cleaning systems where possible.</p>

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			<p>The operator also has systems in place to reduce and minimise the use of cleaning chemicals and/or disinfectants that are harmful to the environment. They utilise a 'Chemical Request Form' which has to be completed and approved by the EHS Manager. The form includes consideration of the required use of the chemical and, among other things, its environmental impact (harmful to aquatic receptors) and any controls that need to be put in place.</p> <p>The operator monitors the conductivity of the wash effluent to identify the interface between the caustic CIP wash liquid and the subsequent flush / wash water and will recover and recycle the caustic liquors and automatically divert to discharge, as effluent, the flush / wash water interface.</p> <p>The equipment and process areas are designed and constructed in a way that facilitates cleaning. When optimising the design and construction, hygiene requirements are taken into account.</p>
9	<p><b>Refrigerants</b> 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>	<b>CC</b>	<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 confirmed that no F-gases are used in refrigerant and coolant systems on site.</p> <p>Refrigerants used for process cooling, such as the chiller on site uses anhydrous ammonia.</p>
10	<p><b>Resource efficiency</b> In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below: (a) Anaerobic digestion (b) Use of residues (c) Separation of residues</p>	<b>CC</b>	<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>

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	<p>(d) Recovery and reuse of residues from the pasteuriser</p> <p>(e) Phosphorus recovery as struvite</p> <p>(f) Use of waste water for land spreading</p>		<p>The operator implements the following techniques on site:</p> <p>Residues (cake) from the ETP are removed from site and sent for anaerobic digestion plant.</p> <p>The site has implemented effluent segregation (separation of residues) within processing lines to separate out high COD effluent streams and collect them into IBCs for offsite disposal. Preventing high COD materials from entering the ETP. This effluent is removed from site for application to land as a soil conditioner and nutrient source.</p> <p>Where practicable, product losses from filling processes are recovered for reuse as product (e.g. wine filling lines).</p> <p>Waste end of line beers and wines and fermented wines are sent for land spreading, following bulk containment 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 sites drainage from the Beverages Plant is routed to the car park sump which provides containment for all processing areas. The operator has confirmed the car park sump pumps can be isolated to prevent transfer to the ETP to provided containment of the effluent if required.</p> <p>The feed into the ETP is directed to a buffer tank to allow the blending in of materials for subsequent treatment if this is viable. The ETP also has an</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
			appropriately sized balance tank to provide buffer storage capacity.
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 (e.g. screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (e.g. 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 (e.g. sand filtration, microfiltration, ultrafiltration)</p> <p>(m) Flotation</p>	<b>CC</b>	<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 site employs a combination of techniques such as:</p> <p>a) Equalisation. All drainage from the Beverages plant is routed to the Car Park Sump from where the effluent is pumped up to the ETP buffer tank, where it is held prior to entering the sequence batch reactor (SBR) tanks. These tanks and the pumped transfer between them act to provide mixing, buffering and equalisation of the flow entering the SBR tanks.</p> <p>b) Neutralisation. The effluent entering the ETP buffer tank is monitored for pH, and if necessary, the pH is corrected via acid / alkali addition prior to treatment in the SBR tanks. Effluent in the buffer tanks is held and mixed prior to transfer to the SBR tanks and will only be allowed to enter the treatment system if the pH is within the required specification.</p> <p>d) Activated sludge process is used in the ETP</p> <p>j) The ETP operates an SBR technology which includes a settlement stage prior to the discharge of the treated effluent. The biomass type within the SBR facilitates efficient settlement. The site doses ferric chloride for micronutrient addition (iron) into the process, and this also assists with flocculation and settlement.</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>	<b>NA</b>	<p>We are satisfied that this BAT - AEL is not applicable to this Installation.</p> <p>The BAT-AELs set out in BAT12 apply to direct discharges to a receiving body of water only. The operator discharges treated process effluent via to</p>

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	<table border="1" data-bbox="277 252 1088 571"> <thead> <tr> <th data-bbox="277 252 629 316">Parameter</th> <th data-bbox="629 252 1088 316">BAT-AEL <sup>(15)</sup> <sup>(16)</sup> (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 316 629 379">Chemical oxygen demand (COD) <sup>(17)</sup> <sup>(18)</sup></td> <td data-bbox="629 316 1088 379">25-100 mg/l <sup>(19)</sup></td> </tr> <tr> <td data-bbox="277 379 629 443">Total suspended solids (TSS)</td> <td data-bbox="629 379 1088 443">4-50 mg/l <sup>(20)</sup></td> </tr> <tr> <td data-bbox="277 443 629 507">Total nitrogen (TN)</td> <td data-bbox="629 443 1088 507">2-20 mg/l <sup>(21)</sup> <sup>(22)</sup></td> </tr> <tr> <td data-bbox="277 507 629 571">Total phosphorus (TP)</td> <td data-bbox="629 507 1088 571">0,2-2 mg/l <sup>(23)</sup></td> </tr> </tbody> </table> <p data-bbox="277 580 1245 628">(15) The BAT-AELs do not apply to emissions from grain milling, green fodder processing, and the production of dry pet food and compound feed.</p> <p data-bbox="277 635 1245 659">(16) The BAT-AELs may not apply to the production of citric acid or yeast</p> <p data-bbox="277 665 1245 713">(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="277 719 1245 783">(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="277 790 1245 837">(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="277 844 1245 892">(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="277 898 1245 946">(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>		<p data-bbox="1397 252 2089 339">ground via an attenuation pond and reedbed system, prior to the discharge reaching a water body. These are emission points WHF1 and W7 in the permit.</p> <p data-bbox="1397 395 2089 635">In the current permit W7 reaches the final receiving environment of Hoolpool Gutter however, the operator has stated in their R61 response that the final receiving environment is a different water body. This change is out of scope of the permit review however this can be resolved during the completion of IC16 which is retained from the previous variation. We have including wording to this effect in table S3.2.</p> <p data-bbox="1397 691 2089 802">The previous variation V006 addressed emissions to water and included limits in table S3.2. We have retained the limits in table 3.2 as per the previous variation V006.</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>												
13	<p data-bbox="277 954 1245 978"><b>Noise management plan</b></p> <p data-bbox="277 994 1245 1114">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="277 1129 1245 1329" 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, e.g. 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="1397 954 2089 1010">We are satisfied that BATc 13 is not applicable to this Installation.</p> <p data-bbox="1397 1066 2089 1153">There is no existing permit requirement and the site has no recent history of noise complaints therefore a noise management plan is not required.</p>										
14	<p data-bbox="277 1353 1245 1377"><b>Noise management</b></p> <p data-bbox="277 1393 1245 1449">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>	CC	<p data-bbox="1397 1353 2089 1465">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
	(a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement		<p>The Operator has implemented a number of measures, as detailed below:</p> <ul style="list-style-type: none"> <li>• The factory has been designed so that the louvers on both sides of the production facility can be opened or closed from the inside.</li> <li>• Sound proofing materials have been used to reduce the noise coming from the compressor rooms and the backup diesel generators.</li> <li>• The operator implements rules regarding the times at which the main production floor roller door and louvers can be opened. Noise spot checks are carried out by the Environment Manager to ensure that the rules are followed.</li> <li>• The operator has a sound meter so that readings can be taken after any reported instances of noise issues from the neighbours.</li> <li>• All complaints regarding noise are recorded on the External Communications Log.</li> <li>• A comprehensive quarterly site noise audit is carried out to identify any factory associated external noises and the results are recorded.</li> </ul>
15	<p><b>Odour Management</b></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"> <li>- a protocol containing actions and timelines;</li> <li>- a protocol for conducting odour monitoring.</li> <li>- a protocol for response to identified odour incidents e.g. complaints;</li> <li>- 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.</li> </ul>	<b>NA</b>	<p>We are satisfied that BATc 15 is not applicable to this Installation.</p> <p>There is no existing permit requirement, and the site has no recent history of odour complaints therefore an odour management plan is not required.</p>
<b>SOFT DRINKS AND NECTAR/ JUICE MADE FROM PROCESSED FRUIT AND VEGETABLES BAT CONCLUSIONS (BAT 33)</b>			

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												
33	<p><b>Energy efficiency – Soft drinks and nectar/ juice made from processed fruit and vegetables</b></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="277 427 1227 772"> <thead> <tr> <th data-bbox="277 427 439 475">Technique</th> <th data-bbox="439 427 725 475">Description</th> <th data-bbox="725 427 1227 475">Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 475 439 564">(a)</td> <td data-bbox="439 475 725 564">Single pasteuriser for nectar/juice production</td> <td data-bbox="725 475 1227 564">Use of one pasteuriser for both the juice and the pulp instead of using two separate pasteurisers.</td> </tr> <tr> <td data-bbox="277 564 439 702">(b)</td> <td data-bbox="439 564 725 702">Hydraulic sugar transportation</td> <td data-bbox="725 564 1227 702">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="277 702 439 772">(c)</td> <td data-bbox="439 702 725 772">Energy-efficient homogeniser for nectar/juice production</td> <td data-bbox="725 702 1227 772">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>a) Is not applicable as the site does not process pulp, only juice.</p> <p>b) The site only uses liquid sugar and liquid iso sweet.</p> <p>c) The operator confirmed there is one homogeniser on site, which is used on rare occasions (~once per year) the operator has confirmed it is energy efficient.</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.													
<b>Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector Environmental Performance Levels</b>															

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><b>Environmental Performance Level – Energy consumption for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</b></p> <table border="1" data-bbox="277 336 1182 427"> <thead> <tr> <th data-bbox="277 336 636 379">Unit</th> <th data-bbox="636 336 1182 379">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 379 636 427">MWh/hl of products</td> <td data-bbox="636 379 1182 427">0.01 – 0.035</td> </tr> </tbody> </table>	Unit	Specific energy consumption (yearly average)	MWh/hl of products	0.01 – 0.035	NA	<p>The site's soft drinks manufacturing only covers approximately 10% of the total sites production which involves pasteurising and filling bottles and packaging different drinks products. Given this the energy consumption for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector is not strictly applicable to the site. However, the operator has provided information to support relating to the energy EPL. We have assessed the information provided and we are satisfied with the information the operator has provided.</p> <p>The Operator has indicated the sites specific energy consumption was 0.028 MWh/hl/products for 2021 which is within the target range level of 0.01 – 0.035 MWh/hl.</p>
	Unit	Specific energy consumption (yearly average)					
MWh/hl of products	0.01 – 0.035						
EPL	<p><b>Environmental Performance Level – Specific waste water discharge for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector</b></p> <table border="1" data-bbox="277 986 1182 1077"> <thead> <tr> <th data-bbox="277 986 636 1029">Unit</th> <th data-bbox="636 986 1182 1029">Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 1029 636 1077">m<sup>3</sup>/hl of products</td> <td data-bbox="636 1029 1182 1077">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	NA	<p>The Operator has indicated the sites specific wastewater discharge was 0.572m<sup>3</sup>/hl of products for 2021 which is outside of the target range level of 0.08 – 0.20 m<sup>3</sup>/hl of products.</p> <p>The site's soft drinks manufacturing only covers approximately 10% of the total sites production which involves pasteurising and filling bottles and packaging different drinks products. Given this the specific wastewater discharge for the Soft Drinks and Nectar/ Juice made from processed fruit and vegetables sector is not strictly applicable to the site.</p> <p>The operator implements appropriate techniques in BATc7 and has also indicated they are working on efficiencies in this area on the site.</p>
	Unit	Specific waste water discharge (yearly average)					
m <sup>3</sup> /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 H1 assessment is not valid for the maximum capacity stated within the permit. However, the improvement condition within the permit IC16 will assess the emissions to water and ensure the emission to water and the limits in place are acceptable, for the capacity limit figure that is now stated 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 which has been included in the permit. Tank vents described in table S3.1 have been merged in the table.

## 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 below:

#### Boilers

1. Rated thermal input (MW) of the medium combustion plant.	6MWth	6MWth	6MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine, or other medium combustion plant).	Boilers	Boilers	Boilers
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural Gas	Natural Gas	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.	2005	2005	2005

#### Back-up generators

1. Rated thermal input (MW) of the medium combustion plant.	1.2MWth	1.2MWth	1.2MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine, or other medium combustion plant).	Diesel Engine	Diesel Engine	Diesel Engine
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Gas oil	Gas oil	Gas oil
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.	2004	2004	2004

We have reviewed the information provided and we consider that the declared combustion plant qualify as “existing” medium combustion plant.

For existing medium combustion plant with a rated thermal input greater than 5 MW, the emission limit values set out in tables 2 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2025.

For existing medium combustion plant with a rated thermal input greater than 5 MW, the emission limit values set out in tables 2 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 24/03/2006 and an update was provided in 2016 variation. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

### **Hazardous Substances**

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

The operator has provided a short risk assessment on the hazardous substances stored and used at the installation. The risk assessment was a stage 1-3 assessment as detailed within EC Commission Guidance 2014/C 136/03.

The stage 1 assessment identified the hazardous substances used / stored on site. The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

The outcomes of the three stage assessment identified that pollution of soil / groundwater to be possible and monitoring is required for these hazardous substances.

The operator has provided a monitoring plan for review, listing the relevant hazardous substances and the current/proposed monitoring to take place. This monitoring plan has been incorporated within table S1.2 Operating Techniques of the Permit.

### **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 flooding & prolonged dry weather/ drought, which we consider to be a severe weather event.

We do not consider the operator to have submitted a suitable climate change adaptation plan for the installation. We have included an improvement condition into the permit IC18 to request a climate change adaptation plan is submitted by the operator for approval from the Environment Agency.

### **Containment**

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

The Operator provided details of all tanks;

- Tank reference/name
- Contents
- Capacity (litres)
- Location
- Construction material(s) of each tank
- The bunding specification including
  - Whether the tank is bunded

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

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

We reviewed the information provided by the operator and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC19). As previous improvement condition IC13 has not be satisfied this improvement condition IC19 now supersedes this. See improvement conditions in Annex 3 of this decision document.

## 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 or superseded 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 produce an Energy Efficiency Plan having regard to the Sector Guidance (S6.10 section 2.7.2). Upon completion of the plan a summary of the document shall be submitted to the Environment Agency in writing	Completed
IC2	A written procedure shall be submitted to the Environment Agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.  The procedure shall be implemented by the operator from the date of approval in writing by the Environment Agency.	Completed
IC3	The operator shall carry out a Water Efficiency Audit in line with sector guidance (S6.10 section 2.4.3). Upon completion of the audit, a summary of the document shall be submitted to the Environment Agency in writing.	Completed
IC4	The operator shall carry out a Waste Minimisation Audit in line with sector guidance (S6.10 section 2.4.2). Upon completion of the audit, a summary of the document shall be submitted to the Environment Agency in writing.	Completed
IC5	The operator shall carry out a risk assessment of the impact of treated effluent discharge upon the receiving waters in Hoolpool Gutter. The assessment shall use 12 months of data collected from the sites effluent discharge point (W7) and upstream and downstream data from the receiving watercourse, Hoolpool Gutter.  The following parameters should be monitored: Biochemical Oxygen Demand, Chemical Oxygen Demand, pH, Suspended Solids, Ammoniacal	Completed 17/02/2023

	<p>Nitrogen expressed as N, Orthophosphate, Total Iron and Dissolved Iron as per Table S3.2. Environment Agency routine monitoring data is also available for consideration as part of the risk assessment.</p> <p>The assessment shall be carried out in accordance with the Environment Agency Horizontal Guidance H1 Surface water pollution risk assessment for your environmental permit. The operator shall submit the completed risk assessment to the Environment Agency for approval.</p>	
IC6	The operator shall propose limits to be set for all parameters listed within Table S3.2 for emission point W7.	Completed 17/02/2023
IC7	If the Environment Agency concludes that the risk assessment required by IC5 identifies that the discharge is impacting upon Hoolpool Gutter, the Operator shall submit a written Action Plan for W7 in table S3.2 to the Environment Agency for approval identifying what improvements to the treatment system shall be made and why and by when to address the impact(s).	Completed 03/03/2023
IC8	The Operator shall implement the improvements identified within any Action Plan approved by the Environment Agency under IC7 and provide written confirmation to the Environment Agency that the improvements have been made.	Completed 03/03/2023
IC9	The operator shall carry out a survey of the drainage system (including below ground pipework) to ensure soil and groundwater are adequately protected. The operator shall submit the completed survey to the Environment Agency for approval.	Completed 21/02/2018
IC10	If the Environment Agency concludes that the survey required by IC9 identifies that soil and groundwater is not adequately protected, the Operator shall submit a written Action Plan to the Environment Agency for approval identifying what improvements to the drainage system shall be made and why and by when to address the impact(s).	Completed 21/02/2018
IC11	The Operator shall implement the improvements identified within any Action Plan approved by the Environment Agency under IC10 and provide written confirmation to the Environment Agency that the improvements have been made.	Completed 22/05/2018
IC12	The operator shall provide a report setting out the inspection / maintenance procedures to be used to ensure the reed bed lining system remains fit for purpose in accordance with guidance document CIRIA C736. The operator shall submit the completed report to the Environment Agency for approval.	Completed 31/10/2022

IC13	The operator shall bund the chemical storage area in line with best available techniques including Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste and CIRIA C736 Containment systems for the prevention of pollution.	Superseded by IC19
IC14	The operator shall install appropriate infrastructure to meet the monitoring requirements for pH and flow listed in table S3.2 at discharge location W7.	Complete 21/04/2022

The following improvement conditions have been retained from the previous variations or 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>
IC15	The operator shall submit to the Environment Agency for agreement a consolidated version of the site's Site Condition Report. The report shall consolidate the main site condition report with any separate site condition reports and addendums produced for additional area of the permitted site, including those produced for the despatch yard and the new effluent treatment plant applied for under application EPR/UP3935LR/V006.	21/09/2023
IC16	<p>Based on discharging via emission point W7 in line with the limits outlined in Table S3.2, the operator shall carry out a risk assessment of the impact of treated effluent discharge upon the receiving waters in Hoolpool Gutter. The assessment shall be carried out in accordance with the Environment Agency Horizontal Guidance H1 Surface water pollution risk assessment for your environmental permit.</p> <p>The assessment shall use 12 months of data collected from the site's effluent discharge point (W7) and upstream and downstream data from the receiving watercourse, Hoolpool Gutter.</p> <p>The following parameters shall be monitored: Biochemical Oxygen Demand, Chemical Oxygen Demand, pH, Suspended Solids, Ammoniacal Nitrogen expressed as N, Orthophosphate, Total Iron, Total Phosphate and Dissolved Iron as per Table S3.2. Environment Agency routine monitoring data is also available for consideration as part of the risk assessment.</p> <p>The operator shall submit the completed risk assessment along with a report to the Environment Agency for approval.</p>	Within 12 months of commissioning of the new moving bed biofilm reactor effluent treatment plant



	The report shall demonstrate whether the limits stated in table S3.2 are appropriate. If the limits in table S3.2 are demonstrated not to be sufficient the operator shall propose revised limits in line with the conclusions of the risk assessment.	
IC17	The operator shall investigate the likely sources of phosphates, giving rise to elevated concentrations detected in the effluent discharge from emissions point W7. A report shall be provided in writing to the Environment Agency for approval on the findings of this investigation, together with a methodology of how the operator proposes to reduce the input from the phosphates sources.	01/09/2023
IC18	The operator shall produce a climate change adaptation plan, which will form part of the EMS. The plan shall include, but not be limited to: <ul style="list-style-type: none"> <li>• Details of how the installation has or could be affected by severe weather;</li> <li>• The scale of the impact of severe weather on the operations within the installation;</li> <li>• An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.</li> </ul> The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	01/12/2024 (12 months from permit issue) or other date as agreed in writing with the Environment Agency
IC19	The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including: <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>• EEMUA 159 - Above ground flat bottomed storage tanks</li> </ul> The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of	01/12/2024 (12 months from permit issue) or other date as agreed in writing with the Environment Agency

	<ul style="list-style-type: none"><li>• current containment measures</li><li>• any deficiencies identified in comparison to relevant standards,</li><li>• improvements proposed</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>	
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