

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/BO0649IR
The Operator is: Samworth Brothers Limited
The Installation is: Ginsters Callington
This Variation Notice number is: EPR/BO0649IR/V006

What this document is about

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

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

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

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

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

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

How this document is structured

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

1 Our decision

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

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

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

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 03/08/2022 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 16/12/2022.

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

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

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

Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 6. The operator currently hasn't demonstrated compliance with the requirements of BATc 6. In relation to this BAT Conclusion, the operator has committed to demonstrate in writing that the BAT requirements for this BAT Conclusion were in place on or before 4 December 2023. We have therefore included Improvement Condition IC25 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions were delivered before or by 4 December 2023.

2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 4 December 2023. We requested further information on the following BATc 6, 7, 9, 11 and 12. In addition the request for clarification also covered clarification of onsite combustion plant and the completion of a relative hazardous substances assessment. A response was received on 28/12/2023, a copy of the further information request and response was placed on our public register.

3 The legal framework

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

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

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

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

Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

NA – Not Applicable

CC – Currently Compliant

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

NC – Not Compliant

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	<p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	CC	<p>The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.</p> <p>The operator has a EMS externally accredited to the ISO14001 standard.</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The Operator has stated the following are in place to increase resource efficiency and reduce waste;</p> <ul style="list-style-type: none"> • Full Hazard Analysis Critical Control Point (HACCP) plan for food production areas are managed and updated regularly. • A simplified process flow diagram showing the origins of emissions from across the site. • A web based system 'Carbon Desktop' is in place and allows the submetering of utility feeds including water across the site. • Trade effluent is monitored in line with the trade effluent consent, daily concentrations and average loads are calculated. • Air emissions are monitored annually.

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"> • Energy consumption and usage data is compiled through the 'Carbon Desktop' system and assessed against KPI's before being reported monthly at board level. • Raw materials are controlled by the Material Resource Planning department. • The site tracks energy and water usage and efficiency in each area of the business and compared against site targets. Similarly food waste is monitored in specific areas and contributes to overall site performance.
3	<p>Monitoring key process parameters at key locations for emissions to water. 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 has stated that the trade effluent is discharged to sewer only. The following parameters are monitored at the various stages of the treatment process including effluent flow, COD and TSS. Emissions to sewer are monitored daily under the MCERTS self-monitoring of flow scheme, COD, Suspended Solids, Flow and pH all recorded daily and analysed for breaches of consent</p>
4	<p>Monitoring emissions to water to the required frequencies and standards. BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this installation.</p> <p>BATc 4 is applicable only to installations discharging process effluent to water and this site discharges only to sewer under consent therefore, BATc 4 is not applicable.</p>

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5	<p>Monitoring channelled emissions to air to the required frequencies and standards.</p> <p>BAT is to monitor channelled emissions to air with at least the frequency given refer to BAT5 table in BATc and in accordance with EN standards.</p>	NA	<p>We are satisfied that BATc 5 is not applicable to this installation.</p> <p>This BATc is applicable to installations where dust emissions from processes such as drying, cooling, grinding, or milling are used. None of these processes are carried out on site and here are no dust emissions generated therefore, BATc 5 is not applicable.</p>
6	<p>Energy Efficiency</p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	FC	<p>The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 6</p> <p>The Operator doesn't have a standalone Energy Efficiency Plan in place. The Operator uses 'Carbon Desktop' to effectively manage energy usage on site. The system allows the setting of energy targets with a planned reduction of 3% annually.</p> <p>The Operator uses the following techniques to reduce energy usage</p> <ul style="list-style-type: none"> • Upgrading of internal and external lighting to LEDs • Replacement of oven burners to low NOx units • Optimisation of compressors. <p>We consider that the operator will be future compliant with 6. Improvement condition (IC25) has been included in the permit to achieve compliance (see Annex 3).</p>
7	<p>Water and wastewater minimisation</p>	CC	<p>The operator has provided information to support compliance with BATc 7. We have</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>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 (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>assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>Due to food safety and hygiene regulations there is limited availability for water recycling onsite. However, the Operator has stated that final wash waters from the bin and tray washers is reused as wash water, this accounts for approx. 24m³/day of recycled water.</p> <p>In addition the Operator undertakes the following techniques to reduce the water consumption at the site;</p> <ul style="list-style-type: none"> c) Hose guns are attached to all cleaning hoses in order to optimise the flow of water and reduce the quantity of water used. e) Cleaning procedures include a 'gross debris' removal stage during which as far as possible, dry cleaning is carried out. g) High pressure cleaning is not possible within the bakery environment due to food safety controls. h) There are no full CIP systems at the site, however Vats and Spirals have semi-enclosed systems which optimise application of chemical and water to clean otherwise hard to reach sections of equipment. i) Foam detergents are used to clean effectively with minimal chemical j) New equipment is inspected by representatives from the hygiene team to assess suitability for cleaning.

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			<p>k) Line equipment is generally cleaned on a first in first out basis with the exception of instances in which a particular machine is required to be prioritised.</p>
8	<p>Prevent or reduce the use of harmful substances</p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants</p> <p>(b) Reuse of cleaning chemicals in cleaning-in-place (CIP)</p> <p>(c) Dry cleaning</p> <p>(d) Optimised design and construction of equipment and process areas</p> <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 undertakes the following techniques to prevent or reduce the use of harmful substances;</p> <p>a) Hygiene chemicals are provide by Holchem. A document is held on file with details of selection process and reasoning.</p> <p>c) Cleaning instructions include a 'gross debris' removal stage in which bulk debris is removed dry before chemical is applied.</p> <p>d) New bakery equipment is inspected by operation, engineering, hygiene and technical staff prior to purchase to ensure suitable design for operation, food safety, maintenance and cleaning.</p>
9	<p>Refrigerants</p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	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 confirmed that refrigerants with a high GWP are in use at the site, the site</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>has a programme to phase these out by 2030. The Operator has shared details of the plan, named 'Project Frosty' to move refrigeration from CHF to a CO₂ or ammonia system by 2030. Upgrade works started in 2023.</p> <p>As a plan is in place to replace the current refrigerants with ones with a lower GWP, we consider that the Operator is compliant with BATc 9.</p>
10	<p>Resource efficiency In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading 	CC	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The Operator utilises the following techniques to improve resource efficiency at the site;</p> <ul style="list-style-type: none"> • Where possible, finished products that are unsuitable for sale through normal routes due quality are redistributed through a number of routes (e.g. fareshare, Company Shop Group, Devon and Cornwall Food Action). • Finished products not suitable for human consumption are used to feed hounds, through authorised kennels. • Lastly any food waste unable to be redistributed, including effluent sludge is transported off site for anaerobic digestion.
11	<p>Waste water buffer storage In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>	CC	<p>The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 11.</p>

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>A 100m³ balance tank is situated on site and forms part of the onsite effluent treatment process. The volume of the balance tank is sufficient to hold half of the daily flow or approximately 12 hours of buffer storage.</p> <p>To prevent uncontrolled releases from the site the site has the following mechanisms in place, each of the three surface water discharge points are fitted with a drain closure device (2 inflatable bladders and 1 hydraulic valve). In the event any materials enter the surface water drains the drains can be isolated and contained prior to removal in a controlled manner. The site also have spill kits located around the site to clean up any spills should they occur.</p>
12	<p>Emissions to water – treatment</p> <p>In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <p>(a) Equalisation</p> <p>(b) Neutralisation</p> <p>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</p> <p>(e) Nitrification and/or denitrification</p> <p>(f) Partial nitrification - anaerobic ammonium oxidation</p> <p>Phosphorus recovery and/or removal</p> <p>(g) Phosphorus recovery as struvite</p> <p>(h) Precipitation</p> <p>(i) Enhanced biological phosphorus removal</p> <p>Final solids removal</p>	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>All process effluent is treated on site prior to discharge to the foul sewer under a trade effluent consent.</p> <p>The following techniques are used to treat the effluent prior to discharge;</p> <p>Grease traps are used to remove FOG (fats oils and grease) before pumping the effluent to the treatment plant where a rotary sieve is used to remove gross debris. Effluent is pH balanced and a coagulant and polymer are added to reduce solids. Effluent is then treated</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										
	(j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation		via a primary DAF (Dissolved Air Flotation) plant before treatment via a biological filter and a secondary DAF plant, prior to discharge.										
12	Emissions to water – treatment BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body <table border="1" data-bbox="282 571 1211 772"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (°) (°)</td> <td>25-100 mg/l (°)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (°)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (°) (°)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (°)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (°) (°) (daily average)	Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)	Total suspended solids (TSS)	4-50 mg/l (°)	Total nitrogen (TN)	2-20 mg/l (°) (°)	Total phosphorus (TP)	0,2-2 mg/l (°)	NA	<p>We are satisfied that the BAT-AELs in relation to BATc 12 are not applicable to this installation.</p> <p>The BAT-AELs are applied to process effluent discharged to water. This site does not have such discharges, all effluent being sent to sewer under consent therefore, the BAT-AELs are not applicable.</p>
Parameter	BAT-AEL (°) (°) (daily average)												
Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)												
Total suspended solids (TSS)	4-50 mg/l (°)												
Total nitrogen (TN)	2-20 mg/l (°) (°)												
Total phosphorus (TP)	0,2-2 mg/l (°)												
13	Noise management plan In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. Note: BAT13 is only applicable where a noise nuisance at sensitive receptors is expected and/or has been substantiated.	NA	<p>We are satisfied that BATc 13 is not applicable to this installation,</p> <p>BATc 13 is only applicable where a noise nuisance at sensitive receptors is expected and/or has been substantiated. The Operator has stated that there have been no noise complaints made through the Environment Agency at the site in the last 4 years. The site has an environmental complaints process and all complaints are recorded and actioned via the environmental management action log.</p>										
14	Noise management 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. (a) Appropriate location of equipment and buildings (b) Operational measures	CC	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.										

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	(c) Low-noise equipment (d) Noise control equipment (e) Noise abatement		<p>The Operator uses the following techniques at the site to reduce/prevent noise emissions.</p> <ul style="list-style-type: none"> a) The vast majority of equipment is within the bakery buildings, with external operations located behind the main buildings, away from the residential area. b) Equipment is subject to 'start up' checks and Planned preventative maintenance <ul style="list-style-type: none"> i. Windows to production areas, where present are not openable and doors are kept shut unless in direct use. This is monitored due to food safety requirements. ii. Only trained staff are to operate equipment iii. External forklift and HGV movements are limited over night c) No external maintenance activity is carried out overnight d) Noisy equipment is housed within buildings to reduce attenuation of sound. Where necessary, buildings are sound proofed to minimise noise, eg CHP plant. e) Equipment not enclosed within buildings is located toward the back of the site, utilising the main buildings as abatement. The majority of the site is also enclosed with hedges and trees, further abating residual sound.
15	<p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p>	NA	<p>We are satisfied that BATc 15 is not applicable to this installation.</p>

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	<ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. <p>BAT 15 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p>		<p>BATc 15 is only applicable where odour nuisance at sensitive receptors is expected and/or has been substantiated.</p> <p>The Operator has stated that there have been no odour complaints made through the Environment Agency at the site since 2007. A draft odour management plan was submitted to the Environment Agency in 2013, however this OMP wasn't approved by the Environment Agency.</p> <p>The site has an environmental complaints process and all complaints are recorded and actioned via the environmental management action log.</p> <p>As there have been no substantiated odour complaints since 2007 we are confident that the site is able to operate without the need to have an approved OMP and therefore BATc 15 isn't applicable.</p>

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

Updating permit during permit review consolidation

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.

This included some other administrative changes to the permit to ensure cross-sector consistency, including:

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

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.

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 removed obsolete emission points.

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:

Combined heat and power (CHP) engines

1. Rated thermal input (MW) of the medium combustion plant.	6.1 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP – Combined Heat and Power Plant
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.	January 2020

Boilers

	Steam Boiler 1	Steam Boiler 2	Andrews Boiler 1	Andrews Boiler 2
1. Rated thermal input (MW) of the medium combustion plant.	3.0 MWth	3.1 MWth	1.1 MWth	1.1 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler	Boiler	Boiler	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
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.	1999	2004	1998	1998

We have reviewed the information provided and we consider that the Steam Boiler 1, Steam Boiler 2, Andrews Boiler 1 and Andrews Boiler 2 qualify as “existing” medium combustion plant. We have retain the previous emission limit values for the Steam Boiler 1 and Steam Boiler 2, but have relaxed the monitoring requirements to match those of the MCPD.

For existing medium combustion plant with a rated thermal input less than 5 MW, the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030. This is applicable to the two Andrews boilers.

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.

The CHP is considered to be a new combustion plant, we have retained the limits as per the previous variation (V005, issued December 2019) but have relaxed the monitoring requirements to match those of 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 [Site Survey Report, Document Red BO 0649/1/3 dated 14 May 2004] during the original application received on 13/08/2004. 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 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 and/or ground water to be unlikely.

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 hasn't submitted a climate change adaptation plan for the installation. We have included an improvement condition into the permit (IC 26) 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 banded

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

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

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

Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IP1	The operator shall provide a report in writing to the Agency detailing the current monitoring method used to determine effluent flow at release point S1. The monitoring method shall be agreed in writing with the Agency.
IP2	The operator shall ensure that the Environment Management System (EMS) reflects the need to contact the sewerage undertaker, when a spillage may affect the sewer discharge or the foul water drains or there is likelihood of overflow from the Tavistock Road pumping station. The operator shall notify the Agency that the EMS has been updated by the date given in this programme.
IP3	The operator shall notify the Agency that a procedure is in place to ensure that the liquor in the scrubber on the hydrochloric acid storage tank is replaced at least after each tank filling operation.
IP4	The operator shall notify the Agency that procedures for recording and investigating incidents and complaints have been included within the EMS.
IP5	The operator shall propose measures to contain untreated effluent from the overflow from the Tavistock Road pumping station within the boundaries of the site. The measures shall be submitted as a report and agreed in writing by the Agency and shall include timescales for any improvement required.
IP6	The operator shall notify the Agency of the installation and commissioning of the Lynher Flour silo.
IP7	The operator shall assess the efficiency of the boilers at release point A1, A2 and A3 in order to optimise energy used and release of nitrogen oxides and carbon monoxide. The findings shall be reported to the Agency and shall include recommendations and timescales for any improvements.
IP8	The operator shall submit the procedures in place to control the abatement at release points A40 and A41 to ensure that no release to air of flour takes place.
IP9	The operator shall submit a written Accident Management Plan that shall be agreed with the Agency. The Plan shall have regard to the requirements set out in section 2.8 of General Sector Guidance for Food and Drink S6.10, Issue 1, August 2003.
IP10	The operator shall undertake detailed dispersion modelling for NO _x as a human health receptor for release points A1 to A39. A report shall be submitted in writing to the Agency as well as an electronic copy of the model input files.
IP11	The operator shall submit a written Closure Plan that shall be agreed with the Agency. The Plan shall have regard to the requirements set out in section 2.11 of General Sector Guidance for Food and Drink S6.10, Issue 1, August 2003.
IP12	The operator shall provide the following for the newly located Lynher flour silo –

	<p>i. Measure the noise level from the silo at a given distance (as agreed with the Agency) to give a 5-minute LA_{eq} under normal operations.</p> <p>ii. Provide a 1/3 octave frequency spectra for the Lynher flour silo at a given distance (as agreed with the Agency) and show the estimated percentage on-time for this source.</p> <p>iii. Measure the Ambient Noise Levels [expressed as dB(A), LA₉₀] with the silo operating at suitable noise sensitive receptors in Tavistock Road (as agreed with the Agency).</p> <p>iv. Measure or predict the Specific Noise Levels [expressed as dB(A), LA_{eq}] with the silo operating at suitable noise sensitive receptors in Tavistock Road (as agreed with the Agency).</p> <p>v. Measure the background noise levels [expressed as dB(A), LA₉₀] at suitable noise sensitive receptors on Tavistock Rad (as agreed with the Agency), either with the installation shut down or at a suitable proxy location as agreed with the Agency.</p> <p>vi. Using the measurements obtained from (iii) and (iv) above, compare these to the Background Noise Levels provided in (v). Measurements and comparison are to be made in accordance with the relevant parts of BS4142:1997 'Method for rating industrial noise affecting mixed residential and industrial areas'. The definitions of terms used above, together with details of the information to be reported can also be found in BS 4142:1997.</p> <p>vii. The operator shall report the results of the above comparison as a difference between the rating level and background level as outlined in BS4142:1997. Using this comparison, identify whether or not the operation of the Lynher flour silo represents BAT as regards the noise impact due to this item of plant on the adjacent noise sensitive receptors in Tavistock Road.</p> <p>viii. If the operation of the Lynher flour silo does not represent BAT, provide the Agency with suitable proposals that shall be agreed with the Agency, to ensure that the output from this source is attenuated at the noise-sensitive receptors in Tavistock Road in order to meet BAT.</p>
IP13	The operator shall submit a report to the Agency, demonstrating whether the wastewater automatic sampler used for sample collection on the effluent discharge to sewer S1, meets with the performance standards given in the MCERTs document 'Continuous Water Monitoring Equipment Part 1, v1 February 2003'. The report shall include an assessment of the automatic samplers' performance with the criteria given in the standard and where these are not met, proposals and timescales required to achieve the standard.
IP14	The operator shall install meters to measure water usage on unit operations within each bakery as detailed in section B2.4.17 of the application.
IP15	The operator shall carry out an assessment of the options available for recycling 'general black bag' wastes having regard to the guidance given in section 2.6 of General Sector Guidance for Food and Drink S6.10, Issue 1, August 2003.
IP16	<p>The operator shall submit a written report detailing proposals for recycling effluent streams including but not limited to:</p> <ul style="list-style-type: none"> • Effluent from vegetable peeling • Effluent from vehicle washing • Trade effluent <p>This report shall include timescales for implementation of any proposed changes that shall be agreed in writing with the Agency.</p>
IP17	The operator shall submit a written report detailing the operational controls in place for refrigeration and accounting for usage and disposal of refrigerants.

IP18	<p>The operator shall have an EMS that is accredited to ISO 14001 in place at the site. The operator shall notify the Agency that the following procedures are in place:</p> <ul style="list-style-type: none"> • Environmental training of staff and contractors • Auditing of the EMS • Reporting installation performance against Installation Environmental Policy and preparation of an annual report • For operation of interceptors.
IP19	The operator shall monitor the VOC release from A4 to A13 and A22 to A39 by methods agreed with the Agency. A report of the results shall be submitted and agreed with the Agency and shall include proposals for a monitoring programme.
IP20	The operator shall in writing the installation 'Energy Efficiency Strategy' to the Agency. This shall include any timescales for implementation of improvements that shall be agreed in writing with the Agency.
IP21	The operator shall assess the current method for effluent flow as agreed in IP1 with the requirements given in the MCERTs standard 'Minimum requirement for the self-monitoring of effluent flow' version 2, Aug 2004. A written report shall be provided to the Agency detailing how this standard is to be achieved and shall include timescales for implementation.
IP22	The operator shall submit a written report to the Agency detailing how the indicative benchmark for mercury release to sewer as given in General Sector Guidance for Food and Drink S6.10, Issue 1, August 2003 shall be achieved. The report shall include timescales for implementation of any necessary improvements that shall be agreed with the Agency.
IP23	The operator shall submit a site plan showing the location of all air emission points.
IP24	The operator shall monitor the NO _x and VOC release from the Tamar Band Oven 4 emission points A60(a) to A63 by methods agreed by the Agency. A report of the results shall be submitted to the Agency.

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

Improvement programme requirements		
Reference	Reason for inclusion	Justification of deadline
IC25	The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 6 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.	1 month from date of permit issue or other date as agreed in writing with the Environment Agency

IC26	<p>The operator shall produce a climate change adaptation plan, which will form part of the EMS.</p> <p>The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p>	<p>12 months from date of permit issue or other date as agreed in writing with the Environment Agency</p>
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