

# **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/BW9255IU  
The Operator is:                        Cavaghan & Gray Limited  
The Installation is:                    Eastern Way Food Factory  
This Variation Notice number is:   EPR/BW9255IU/V005

### **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 30/07/2021 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

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

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

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

The Regulation 61 Notice response from the Operator was received on 22/10/2021.

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.

### 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 11/12/2023 requesting additional information and evidence on BATc 2, 6, IED baseline and hazardous substances, emission point plans, climate change adaptation and a follow up request on the 01/02/2024 requiring further clarification on some of the previous points. A copy of each 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>	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 an EMS that incorporates the features as described within BATc 1.</p>
2	<p><b>EMS Inventory of inputs &amp; outputs. Increase resource efficiency and reduce emissions.</b></p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The operator has confirmed energy, water and finished product are reviewed on a weekly, monthly and yearly basis. A mass balance of incoming water and waste water is calculated on a weekly basis. Raw material consumption is continuously analysed through operations and continuous improvement as part of material variances of the installation. Waste gases from the boilers are monitored through the maintenance programme by a third party contractor.</p>
3	<p><b>Monitoring key process parameters at key locations for emissions to water.</b></p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	CC	<p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p> <p>The operator confirms the Effluent Treatment Plant (ETP) monitors/trends flow which is set at 48 or 52m<sup>3</sup>/hour (max under the discharge consent) depending on the level in the balance</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
			tanks and does not run continuously. The ETP/automatic dosing equipment continuously monitors and trends turbidity, pH and temperature of the final effluent.
4	<p><b>Monitoring emissions to water to the required frequencies and standards.</b> 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>N/A</b>	<p>BATc 4 applies in the case of direct discharge of effluent to a water body. All process effluent from the site is discharged to sewer.</p> <p>We are therefore satisfied that BATc 4 is not applicable for this site</p>
5	<p><b>Monitoring channelled emissions to air to the required frequencies and standards.</b> BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.</p>	<b>N/A</b>	<p>BATc 5 sets out air emissions monitoring requirements applicable to specific FDM sub-sectors. None of these monitoring requirements are applicable to this site as the activities undertaken (ready meal manufacture) are not specified in the sector and specific processes set out in BATc 5.</p> <p>We are therefore satisfied that BATc 5 is not applicable to this site.</p>
6	<p><b>Energy Efficiency</b> 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 Energy Efficiency Plan meets the requirements of BAT 6a. The plan identifies the utility usage per tonne of finished product against improvement targets.</p> <p>The operator has confirmed the following energy saving techniques are used on site:</p> <ul style="list-style-type: none"> <li>• Replacement of steam traps and valves.</li> </ul>

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			<ul style="list-style-type: none"> <li>• Pre-heat boiler feed water</li> <li>• Programme to re-insulate pipework as required</li> <li>• Compressed air leaks rectified.</li> <li>• Automatic shut off for compressed air on the Cook Quench Cool blanching equipment</li> <li>• LED lighting in appropriate spaces</li> <li>• Variable speed drives fitted where there is a requirement for motors to speed up and slow down</li> <li>• Energy efficiency motors fitted to new equipment</li> </ul>
7	<p><b>Water and wastewater minimisation</b></p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse</p> <p>(b) Optimisation of water flow</p> <p>(c) Optimisation of water nozzles and hoses</p> <p>(d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p> <p>(e) Dry cleaning</p> <p>(f) Pigging system for pipes</p> <p>(g) High-pressure cleaning</p> <p>(h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP)</p> <p>(i) Low-pressure foam and/or gel cleaning</p> <p>(j) Optimised design and construction of equipment and process areas</p> <p>(k) Cleaning of equipment as soon as possible</p>	CC	<p>The operator has provided information to support compliance with BATc 7. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The operator has confirmed they have implemented the following water and waste water minimisation techniques;</p> <ul style="list-style-type: none"> <li>• One cooling belt blancher has a water recirculation system.</li> <li>• Water control systems on major plant have been installed on large water users to deliver the exact amount as required by the manufacturers.</li> <li>• Rainwater diversion scheme included to divert roof water to the river rather than the ETP.</li> <li>• Dry cleaning.</li> <li>• Low pressure cleaning and hose guns.</li> <li>• Two Cleaning in Place CIP plants in operation. Lack of space prevents all compatible equipment utilising CIP.</li> <li>• Low pressure foaming used for open</li> </ul>



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>plant cleaning across the site.</p> <ul style="list-style-type: none"> <li>• Cleaning is a continuous process on site.</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</p> <p>(b) Reuse of cleaning chemicals in cleaning-in-place (CIP)</p> <p>(c) Dry cleaning</p> <p>(d) Optimised design and construction of equipment and process areas</p>	CC	<p>The operator has provided information to support compliance with BATc 8. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The operator has provided a list of cleaning chemicals used on site and confirmed the following:</p> <ul style="list-style-type: none"> <li>• They choose chemicals for the material/soiling being removed, ie fats, oils, greases, proteins, carbon in conjunction with an industry approved cleaning chemical supplier.</li> <li>• Reuse of chemicals occurs within the CIP system detailed above.</li> <li>• Dry cleaning is carried out with cloths &amp; alcohol trigger sprays to minimise the amount used, alcohol is used to disperse and lift grease and debris.</li> <li>• Machines and the food manufacturing environment are routinely cleaned with the cleaning chemicals selected at the optimum concentrations, which is done by controlled dosing and trained staff.</li> <li>• The two CIP plants are subject to two yearly audit by the chemical supply company.</li> <li>• Dosing of caustic and temperature is automatically controlled which ensures recovery of hot water and chemical.</li> </ul>
9	<p><b>Refrigerants</b></p> <p>In order to prevent emissions of ozone-depleting substances and of substances</p>	CC	<p>The operator has provided information to support compliance with BATc 9. 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
	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>assessed this information and are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The Operator provided details of the refrigeration systems associated with production processes, a number of which use high GWP refrigerants R407A, R413A, R507, R410A and R404A.</p> <p>They confirmed that the two systems running on R404A and R507 are both to be replaced in 2024/25 with R449A which can be fitted to the existing equipment and is the lowest GWP gas used at the installation. A plan is also in place to ensure other systems are topped up with either reclaimed F Gas, retro filled with lower GWP F Gases or fully replaced.</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:</p> <ul style="list-style-type: none"> <li>(a) Anaerobic digestion</li> <li>(b) Use of residues</li> <li>(c) Separation of residues</li> <li>(d) Recovery and reuse of residues from the pasteuriser</li> <li>(e) Phosphorus recovery as struvite</li> <li>(f) Use of waste water for land spreading</li> </ul>	<b>CC</b>	<p>The operator has provided information to support compliance with BATc 10. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The operator has confirmed the following techniques are used on site:</p> <ul style="list-style-type: none"> <li>• Clean cardboard, plastic, metal tins and mixed metal are recycled.</li> <li>• Food waste and dissolved air flotation (DAF) Plant sludge is sent to Anaerobic Digester Plant.</li> <li>• Sludge from DAF Plant balance tank cleaning is sent for land spreading</li> <li>• General waste which includes plastic packaging is sent to a Refuse Derived Fuel plant.</li> <li>• Animal Fat and Rapeseed Oil is</li> </ul>

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
			recovered and sent to produce Biofuel.
11	<p><b>Waste water buffer storage</b> 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 this information and are satisfied that the operator has demonstrated compliance with BATc 11.</p> <p>The operator has confirmed the DAF Plant has two 300m<sup>3</sup> balance tanks feeding it with only one tank running at a time with the levels set at 20% off, 30%. The second clean tank is left empty. If required the second tank can be brought on line such as in the case of very severe weather conditions.</p> <p>A surface water diversion system is in place to divert clean roof and main car park water (via interceptor) away from the ETP. The system is designed for a worst case 1 in 100 year rainfall event. The tanks are designed to empty and discharge the water at a prior agreed rate.</p>
12	<p><b>Emissions to water – treatment</b> In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. Preliminary, primary and general treatment (a) Equalisation (b) Neutralisation (c) Physical separate (eg screens, sieves, primary settlement tanks etc) Aerobic and/or anaerobic treatment (secondary treatment) (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc) (e) Nitrification and/or denitrification (f) Partial nitrification - anaerobic ammonium oxidation Phosphorus recovery and/or removal</p>	CC	<p>The operator has provided information to support compliance with BATc 12. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The site discharges waste water to sewer under Trade Effluent Consent.</p> <p>Prior to discharge waste water (including cooling tower water) is screened to remove solids prior to pumping into the balance tanks for treatment using coagulant and polymer.</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										
	(g) Phosphorus recovery as struvite (h) Precipitation (i) Enhanced biological phosphorus removal Final solids removal (j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation		Water from roofs is diverted directly to River.  Effluent sludge goes to Anaerobic Digestion plant or the small quantity from the balance tank cleaning goes for land spreading.										
12	<b>Emissions to water – treatment</b> <b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b>  <table border="1" data-bbox="264 762 1196 967"> <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 (°)	N/A	The site discharges process effluent to the foul sewer, there are no direct discharges to the water course, as such BAT-AELs do not apply.  We are therefore satisfied that BAT AELs associated with BATc 12 is not applicable for this site.
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	<b>Noise management plan</b> 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: - 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.	CC	The operator has provided information to support compliance with BATc 13. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 13.  The installation lies within 50m of housing. A noise management plan was implemented in July 2019 which includes: <ul style="list-style-type: none"> <li>Description of the installation and surroundings, Overview of the</li> </ul>										

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>installations operations, sources, releases and impacts, historical mitigation measures implemented, emissions monitoring, complaints monitoring.</p> <ul style="list-style-type: none"> <li>Noise Management Plan record sheet which records each individual noise source highlighting receptor/nature of noise or vibration/ contribution to overall emissions/abatement and actions taken to meet BAT.</li> </ul>
14	<p><b>Noise management</b></p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Appropriate location of equipment and buildings</p> <p>(b) Operational measures</p> <p>(c) Low-noise equipment</p> <p>(d) Noise control equipment</p> <p>(e) Noise abatement</p>	CC	<p>The operator has provided information to support compliance with BATc 14. We have assessed this information and are satisfied that the operator has demonstrated compliance with BATc 14.</p> <p>The operator has confirmed the following noise reduction measures are in place:</p> <ul style="list-style-type: none"> <li>Relocation of plant items away from areas close to housing.</li> <li>Cooling towers retrofitted and moved inside the building.</li> <li>Replacement and relocation of refrigerated trailers with portable cold store and use electric rather than diesel power source.</li> <li>Limit deliveries and forklift movements to daytime working only.</li> <li>Soundproofing, blocking and equipment selection to reduce noise.</li> <li>Replace wooden screening with sound proof materials.</li> <li>Sound monitoring of extraction fans.</li> <li>Replacing old external refrigeration equipment with modern quieter plant.</li> </ul>
15	<p><b>Odour Management</b></p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions,</p>	CC	<p>The operator has provided information to support compliance with BATc 15. We have</p>

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	<p>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 eg 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>		<p>assessed this information and are satisfied that the operator has demonstrated compliance with BATc 15.</p> <p>Due to the sites proximity to housing and historic odour complaints an odour management plan was approved in January 2016. There however appeared to be no further updates and when questioned the operator submitted a revised document to the local team as the R61 review was being undertaken.</p> <p>This document is not considered sufficient, providing no operational details. We have therefore included IC9 requiring the operator to submit a revised odour management plan.</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**

- 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.

### **Production/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.

### **Implementing the requirements of the Medium Combustion Plant Directive**

The site has 2 x 0.465MWth and 2 x 0.233MWth thermal oil boilers which run on natural gas. These were installed in June 1986.

For the existing combustion plant with a rated thermal input less than 1 MW we will not be including any emission limit values or monitoring requirements within the permit, unless any site specific conditions require us to do this.

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

- Number of combustion plant (CHP engines, back-up generators, boilers);
- Size of combustion plant – rated thermal input (MWth)
- Date each combustion plant came into operation

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

**Boilers**

	Boiler 1	Boiler 2	Boiler 3
1. Rated thermal input (MW) of the medium combustion plant.	1.563 MWth	1.563MWth	3.947MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Steam boiler	Steam Boiler	Steam boiler
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.	January 1986	January 1986	January 1993

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

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

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

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

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

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



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

### **Soil & groundwater risk assessment (baseline report)**

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

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

The Operator submitted a site condition report during the original application received on March 2004 which was reviewed and updated July 2021. 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 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 unavailability of land for land spreading of waste/ prolonged dry weather/ drought, which we consider to be a severe weather event. They provided a number of documents in support of their climate change adaptation plans including assessment procedures, flood risk assessments risk assessment and action plan. The action plan however appears to be a general document, covering flooding not initially identified as an issue and providing only brief reference to landspreading. It may therefore need further development to ensure the key issues are fully covered.

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

We consider the climate change adaptation plan to be appropriate for the installation.

## **Containment**

We asked the Operator via the Regulation 61 Notice to provide details of 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 banded 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.

The Operator did not provide a response to the Regulation 61 Notice with respect to the existing tanks and their containment measures on site. The tab was missing from the spreadsheet.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC10). See Improvement condition(s) 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 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 develop and implement a documented system of management techniques, having regard to the Agency Guidance Note (IPPC S6.10 Section 2.3) for the Food and Drink Sector. The system shall be suitable for ISO14001 certification following implementation.  Confirmation in writing shall be submitted to the Agency to confirm the completion of the management system and that all documentation is available for inspection.
IC2	The Operator shall assess the options available for dealing with process effluent taking into account, cleaning, water efficiency measures and the resulting process effluent. The Operator shall compare the options to the requirements of Section 2.4 and 2.6 respectively of the Agency Guidance Note IPPC S6.10, and identify any necessary improvements. A written report summarising the options shall be sent to the Agency together with a timetable for implementing any improvements identified.
IC3	The Operator shall assess the options available to prevent or minimise the release of odorous emissions from the installation. The Operator shall compare the options to the requirements of Section 2.2.6 of Agency Guidance Note IPPC S6.10 and Agency Guidance H4 (parts 1 and 2). A written report summarising the options shall be sent to the Agency together with a timetable for implementing any improvements identified.
IC4	The Operator shall conduct a noise assessment of the installation having regard to BS4142:1997 after the addition of each new oven as described in the Application. The Operator shall submit a written report summarising the assessment together with any options available to reduce the impact of noise and a timetable for implementing any improvements identified. Reports shall be submitted within 6 months of each addition.
IC5	The Operator shall assess the options available for the energy efficiency measures at the installation. The Operator shall compare the options to the requirements of Section 2.7 of Agency Guidance Note IPPC S6.10. A written report summarising the options shall be sent to the Agency together with a timetable for implementing any improvements identified.
IC6	The Operator shall review and if necessary amend their accident management plan with regard to the requirements set out in Section 2.8 of the Agency Guidance Note (IPPC S6.10). Upon completion of the review, a summary of the amended plan shall be submitted to the Agency.
IC7	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S6.10, August 2003. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.
IC8	The Operator shall characterise and then assess options for the minimisation of the emission of volatile organic compounds to air from the operation of the ovens. A written report summarising the emission characterisation and options shall be sent to the Agency together with a timetable for implementing any improvements identified.

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

<b>Improvement programme requirements</b>
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Reference	Reason for inclusion	Justification of deadline
IC9	<p>The operator shall submit a revised odour management plan to the Environment Agency for assessment and written approval. The plan shall take into account the requirements of Environment Agency Guidance H4 - Odour Management. The report must contain but not be limited to:</p> <ul style="list-style-type: none"> <li>• Review of sources of odour on the site</li> <li>• Options available to reduce or eliminate odour from each identified source with the potential to result in significant emissions</li> <li>• Proposals for odour prevention measure along with timescale for implementation</li> </ul> <p>You must implement the proposals in the report in line with the timescales agreed with the Environment Agency</p>	3 months from date of permit issue
IC10	<p>"The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including:</p> <ul style="list-style-type: none"> <li>• CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises,</li> <li>• EEMUA 159 - Above ground flat bottomed storage tanks</li> </ul> <p>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</p> <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>	12 months from date of permit issue