

# **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/NP3537HM  
The Operator is:                        Forza Foods Limited  
The Installation is:                    Food Processing Unit 2000  
This Variation Notice number is:   EPR/NP3537HM/V004

### **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 01/08/2022 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 01/12/2022.

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 5, 6, 11, 29, and Containment onsite. The operator does not currently comply with the requirements of BAT Conclusions 5, 6, 11, 29 and Containment onsite. In relation to these BAT Conclusions, we do not fully agree with the Operator in respect of their current stated capability as recorded in their response to the Regulation 61 Notice. We have therefore included Improvement Conditions IP2, IP3, IP4 and IP5 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered within 3 months of the variation being issued.

### 2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued further information requests on 18/01/2024 regarding BATcs 1, 2, 3, 4, 5, 6, 8, 9, 11, 14, 29 and Environmental Performance Level – energy consumption, Environmental Performance Level – waste water discharge, along with supplementary information requested in relation to a labelled site plan, MCP description, boiler blowdown discharge point, list of hazardous substances onsite and onsite tank compliance. Then on 13/02/2024 regarding BATc 7 and clarification of previously requested information. 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 declared that sectoral benchmarking is not currently used at his site. However, because the environmental management system (EMS) is accredited to ISO45001 standard and is partly certified for ISO 14001 standard, we consider the Operator to be compliant with 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 provided:</p> <ul style="list-style-type: none"> <li>- A simplified process diagram to identify waste water and gas minimisation opportunities</li> <li>- Information about water, energy and raw material consumption and waste streams</li> <li>- Monitoring effluent composition</li> <li>- Energy usage monitored</li> <li>- Monitoring of waste, energy and water is used to inform objective setting</li> </ul>
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>

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>The operator stated that minimally treated effluent is discharged directly to the foul sewer under a Trade Effluent Discharge Consent issued by the local sewerage undertaker. The operator relies on monthly effluent monitoring undertaken by the sewerage undertaker. No onsite monitoring for key parameters of emissions to water are undertaken by the operator currently.</p>
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 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 BATc4 is not applicable to this installation.</p> <p>The operator discharges waste water to Yorkshire Water sewage treatment works and does not have any process water discharges to controlled waters. No proactive monitoring takes place on site by the operator.</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>	FC	<p>The operator has provided information to support compliance with BATc 5. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 5.</p> <p>The Operator does not currently monitor emissions of total volatile organic compounds (TVOC), nitrogen oxides (NOx) and carbon monoxide (CO) released from the smoke chambers, as requested by this BATc.</p> <p>BATc 5 is asking the Operator to monitor emissions from the smoke chamber at the following standards and frequencies:            TVOC – EN 12619 – once every year            NOx – EN 14792 – once every year            CO – EN 15058 – once every year</p> <p>We have included in the permit Improvement Programme (IP2) for the Operator to</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
			demonstrate compliance is achieved (See Annex 3).
6	<p><b>Energy Efficiency</b></p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	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>There is a good overview of the energy efficiency pathway, but this is not included in a standalone, site specific energy efficiency plan. Consequently, an improvement programme has been included.</p> <p>We consider that the operator will be future compliant with BATc 6. Improvement Programme (IP2) has been included in the permit to achieve compliance (see Annex 3).</p>
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 the information provided and are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The Operator declared that it using the following minimisation techniques:</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>



BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			The operator is unable to recycle or reuse water onsite due to the requirements of food standards and hygiene.
8	<p><b>Prevent or reduce the use of harmful substances</b></p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants  (b) Reuse of cleaning chemicals in cleaning-in-place (CIP)  (c) Dry cleaning  (d) Optimised design and construction of equipment and process areas</p>	CC	<p>The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The operator declared:</p> <ul style="list-style-type: none"> <li>- The proper selection of cleaning chemicals and/or disinfectants, taking food safety requirements into account</li> <li>- CIP utilised in smoker chamber.</li> </ul>
9	<p><b>Refrigerants</b></p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	CC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The operator provided the F-Gas register through the RFI, which states R410A (67.4kg with GWP of 2088) and R32 (GWP 675) refrigerant is used only in air conditioning equipment on site. Process refrigeration uses ammonia primarily (confirmed through COSHH register).</p>
10	<p><b>Resource efficiency</b></p> <p>In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <p>(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</p>	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 declared:</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			<ul style="list-style-type: none"> <li>- Use of residues (jelly / cook out and meat waste) for off-site Anaerobic Digestion</li> <li>- Separation of residues for further processing</li> <li>- Where possible, materials sent for reuse or recovery</li> </ul>
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>	FC	<p>The operator has limited buffer storage capacity. Currently this is in the form of a new replacement tank that has been installed on site, with a capacity of 11m<sup>3</sup>. Consequently, we have included an Improvement Programme to ensure consideration is given to the prevention of uncontrolled emissions to water.</p> <p>We consider that the operator will be future compliant with BATc 11. Improvement Programme (IP3) has been included in the permit to achieve compliance (see Annex 3).</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</p> <ul style="list-style-type: none"> <li>(a) Equalisation</li> <li>(b) Neutralisation</li> <li>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</li> </ul> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <ul style="list-style-type: none"> <li>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</li> <li>(e) Nitrification and/or denitrification</li> <li>(f) Partial nitrification - anaerobic ammonium oxidation</li> </ul> <p>Phosphorus recovery and/or removal</p> <ul style="list-style-type: none"> <li>(g) Phosphorus recovery as struvite</li> <li>(h) Precipitation</li> </ul>	CC	<p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The operator declared:</p> <ul style="list-style-type: none"> <li>c) Physical separation via 3 macerators in a pumping station, waste water is then pumped to the Separator which acts as a weir to separate fats.</li> <li>m) Flotation of separated fats which are pumped offsite and sent for processing</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										
	(i) Enhanced biological phosphorus removal Final solids removal (j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation												
12	<p><b>Emissions to water – treatment</b>  <b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b></p> <table border="1" data-bbox="304 647 1234 847"> <thead> <tr> <th data-bbox="304 647 792 687">Parameter</th> <th data-bbox="792 647 1234 687">BAT-AEL (1) (2) (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="304 687 792 727">Chemical oxygen demand (COD) (1) (2)</td> <td data-bbox="792 687 1234 727">25-100 mg/l (2)</td> </tr> <tr> <td data-bbox="304 727 792 767">Total suspended solids (TSS)</td> <td data-bbox="792 727 1234 767">4-50 mg/l (2)</td> </tr> <tr> <td data-bbox="304 767 792 807">Total nitrogen (TN)</td> <td data-bbox="792 767 1234 807">2-20 mg/l (2) (2)</td> </tr> <tr> <td data-bbox="304 807 792 847">Total phosphorus (TP)</td> <td data-bbox="792 807 1234 847">0,2-2 mg/l (2)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (1) (2) (daily average)	Chemical oxygen demand (COD) (1) (2)	25-100 mg/l (2)	Total suspended solids (TSS)	4-50 mg/l (2)	Total nitrogen (TN)	2-20 mg/l (2) (2)	Total phosphorus (TP)	0,2-2 mg/l (2)	NA	<p>We are satisfied that BATc 12 is not applicable to this installation.</p> <p>BATc 12 is only applicable to sites that have a direct discharge to a receiving water body.</p>
Parameter	BAT-AEL (1) (2) (daily average)												
Chemical oxygen demand (COD) (1) (2)	25-100 mg/l (2)												
Total suspended solids (TSS)	4-50 mg/l (2)												
Total nitrogen (TN)	2-20 mg/l (2) (2)												
Total phosphorus (TP)	0,2-2 mg/l (2)												
13	<p><b>Noise management plan</b></p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> <li>- a protocol containing actions and timelines;</li> <li>- a protocol for conducting noise emissions monitoring;</li> <li>- a protocol for response to identified noise events, e.g. complaints;</li> <li>- a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.</li> </ul>	NA	<p>We are satisfied that BATc 13 is not applicable to this Installation.</p> <p>A noise management plan is only required where noise nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated noise nuisance from the site therefore an NMP is not a requirement for this site.</p>										
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>	CC	<p>The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.</p>										

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement															
	(b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement		The operator is using: <ul style="list-style-type: none"> <li>- Appropriate location of equipment and buildings</li> <li>- Operational measures – avoidance of noisy activities at night</li> </ul>															
15	<b>Odour Management</b> In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: <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>	NA	We are satisfied that BATc 15 is not applicable to this Installation. An odour management plan is only required where odour nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated odour nuisance from the site therefore an OMP is not a requirement for this site.															
<b>Meat processing sector BAT conclusions</b>																		
29	<b>Emissions to air – Meat Processing Sector</b> In order to reduce channelled emissions of organic compounds to air from meat smoking, BAT is to use one or a combination of the techniques given below. <table border="1" data-bbox="315 1066 1211 1342" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 15%;">Technique</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Adsorption</td> <td>Organic compounds are removed from a waste gas stream by retention on a solid surface (typically activated carbon).</td> </tr> <tr> <td>(b)</td> <td>Thermal oxidation</td> <td>See Section 14.2.</td> </tr> <tr> <td>(c)</td> <td>Wet scrubber</td> <td>See Section 14.2. An electrostatic precipitator is commonly used as a pretreatment step.</td> </tr> <tr> <td>(d)</td> <td>Use of purified smoke</td> <td>Smoke generated from purified primary smoke condensates is used to smoke the product in a smoke chamber.</td> </tr> </tbody> </table>		Technique	Description	(a)	Adsorption	Organic compounds are removed from a waste gas stream by retention on a solid surface (typically activated carbon).	(b)	Thermal oxidation	See Section 14.2.	(c)	Wet scrubber	See Section 14.2. An electrostatic precipitator is commonly used as a pretreatment step.	(d)	Use of purified smoke	Smoke generated from purified primary smoke condensates is used to smoke the product in a smoke chamber.	CC	The operator has provided information to support compliance with BATc 29. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 29.  The site operates a meat smoker. The operator has confirmed emissions pass through an integrated catalytic after burning system, which falls under the definition of a thermal oxidiser (section 14.2, of the BREF conclusions) prior to discharge to atmosphere via point A12. This process converts emissions to carbon dioxide and water primarily.
	Technique	Description																
(a)	Adsorption	Organic compounds are removed from a waste gas stream by retention on a solid surface (typically activated carbon).																
(b)	Thermal oxidation	See Section 14.2.																
(c)	Wet scrubber	See Section 14.2. An electrostatic precipitator is commonly used as a pretreatment step.																
(d)	Use of purified smoke	Smoke generated from purified primary smoke condensates is used to smoke the product in a smoke chamber.																

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						
29	<p>BAT-associated emission level (BAT-AEL) for channelled TVOC emissions to air from a smoke chamber.</p> <table border="1" data-bbox="322 316 1216 416"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>BAT-AEL (average over the sampling period)</th> </tr> </thead> <tbody> <tr> <td>TVOC</td> <td>mg/Nm<sup>3</sup></td> <td>3-50 <sup>(1)</sup> <sup>(2)</sup></td> </tr> </tbody> </table> <p><sup>(1)</sup> The lower end of the range is typically achieved when using adsorption or thermal oxidation.  <sup>(2)</sup> The BAT-AEL does not apply when the TVOC emission load is below 500 g/h.</p> <p><b>Associated monitoring is given in BAT 5.</b></p>	Parameter	Unit	BAT-AEL (average over the sampling period)	TVOC	mg/Nm <sup>3</sup>	3-50 <sup>(1)</sup> <sup>(2)</sup>	FC	<p>The operator has provided information to support compliance with BATc 29. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 29.</p> <p>The operator has provided a statement for TOCs of “approximately 200g/hour”. No accurate TVOC emissions have been provided. The smoker emission point is included in the current permit (emission point A12), but there are no limits set and no monitoring requirements. We have included annual monitoring for:</p> <ul style="list-style-type: none"> <li>• Total Volatile Organic Compounds (TVOC) with an ELV of 50g/m<sup>3</sup> when the emission load is above 500g/h.</li> <li>• NOx</li> <li>• CO</li> </ul> <p>Improvement Programme (IP4) (TVOC Monitoring) has been added to the permit to ensure compliance. If monitoring demonstrates that TVOC emission load is below 500g/h, the ELV monitoring in the permit will not apply.</p>
Parameter	Unit	BAT-AEL (average over the sampling period)							
TVOC	mg/Nm <sup>3</sup>	3-50 <sup>(1)</sup> <sup>(2)</sup>							
<b>Meat Processing Sector Environmental Performance Levels</b>									

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement				
EPL	<p><b>Environmental Performance Level – Energy consumption for the meat processing sector</b></p> <table border="1" data-bbox="309 336 1216 432"> <thead> <tr> <th data-bbox="309 336 763 392">Unit</th> <th data-bbox="763 336 1216 392">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="309 392 763 432">MWh/tonne of raw materials</td> <td data-bbox="763 392 1216 432">0,25-2,6 <sup>(f)</sup> <sup>(f)</sup></td> </tr> </tbody> </table> <p data-bbox="309 440 1216 464"><sup>(f)</sup> The specific energy consumption level does not apply to the production of ready meals and soups.</p> <p data-bbox="309 464 1216 488"><sup>(f)</sup> The upper end of the range may not apply in the case of a high percentage of cooked products.</p>	Unit	Specific energy consumption (yearly average)	MWh/tonne of raw materials	0,25-2,6 <sup>(f)</sup> <sup>(f)</sup>	CC	<p>The operator has provided information to support compliance with BATc 29 EPL for specific energy consumption. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 29 EPL.</p> <p>The data provided by the Operator, obtained for 2022, demonstrates that the specific energy consumption for the site, 0.18MWh/t of raw materials, falls within the specified range. Although the whole figure for raw materials to site has been used (as the operator was unable to separate out meat for processing as opposed to meat that doesn't change form), the figures are within the permitted limits.</p>
Unit	Specific energy consumption (yearly average)						
MWh/tonne of raw materials	0,25-2,6 <sup>(f)</sup> <sup>(f)</sup>						
EPL	<p><b>Environmental Performance Level – Specific waste water discharge for the meat processing sector</b></p> <table border="1" data-bbox="309 847 1216 935"> <thead> <tr> <th data-bbox="309 847 763 887">Unit</th> <th data-bbox="763 847 1216 887">Specific waste water discharge(yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="309 887 763 935">m<sup>3</sup>/tonne of raw materials</td> <td data-bbox="763 887 1216 935">1,5-8,0 <sup>(f)</sup></td> </tr> </tbody> </table> <p data-bbox="309 943 1216 983"><sup>(f)</sup> The specific waste water discharge level does not apply to processes using direct water cooling and to the production of ready meals and soups.</p>	Unit	Specific waste water discharge(yearly average)	m <sup>3</sup> /tonne of raw materials	1,5-8,0 <sup>(f)</sup>	CC	<p>The operator has provided information to support compliance with BATc 29 EPL for specific waste water discharge. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 29 EPL.</p> <p>The data provided by the Operator, obtained for 2022, demonstrates that the specific waste water discharge for the site, 1.22 m<sup>3</sup>/t of raw materials, falls within the specified range. Although the whole figure for raw materials to site has been used (as the operator was unable to separate out meat for processing as opposed to meat that doesn't change form), the figures are within the permitted limits.</p>
Unit	Specific waste water discharge(yearly average)						
m <sup>3</sup> /tonne of raw materials	1,5-8,0 <sup>(f)</sup>						

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

### **Updating permit during permit review consolidation**

- Introductory note updated
- Site plan
- Table S1.1 overhaul
  - Activity Reference (AR) renumbering
  - Updated listed activities

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 (2011).

The existing H1 assessment (of 2011) of particulate emissions to air remains valid for the current capacity threshold placed within table S1.1 of the permit.

### **Emissions to Air**

We asked the operator to list all emission points to air from the installation in the Regulation 61 notice. And to provide a site plan indicating the locations of all air emission points.

The operator has not provided an up to date air emission plan.

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

#### **Existing small combustion plant (<1MW)**

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.

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

**Boilers.**

1. Rated thermal input (MW) of the medium combustion plant.	0.706MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler A1: 0.353 MWth Boiler A2: 0.353MWth
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.	A1: 2010 A2: 2010

**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.

There is no external discharge of boiler blowdown onsite.

**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 (Envirocheck Report 14/09/2010 and Sitecheck Report 09/11/2009, both resubmitted as part of the Reg61 response) during the original application received on 23/02/2011. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

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

### **Hazardous Substances**

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

The operator has confirmed there has been no change in the hazardous substances used, their capability of causing pollution and/or the pollution prevention measures at the installation since the risk assessment and spill procedure was submitted on 01/12/2022, as part of the Reg61 'RHS Baseline' tab.

### **Climate Change Adaptation**

The operator has considered if the site is at risk of impacts from adverse weather (flooding, unavailability of land for land spreading, prolonged dry weather / drought).

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

### **Containment**

We asked the Operator vis 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 and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IP5). See Improvement Programmes 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 submit a written statement to the Agency acknowledging the full implementation of their Environmental Management System, in line with Agency guidance 'How to comply with your Environmental Permit April 2011', on or before the stated date.

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

<b>Improvement programme requirements</b>		
<b>Reference</b>	<b>Reason for inclusion</b>	<b>Justification of deadline</b>
IP2	<p>The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Methodology applied for achieving BAT</li> <li>• Demonstrating that BAT has been achieved.</li> </ul> <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 5 and 6 Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>Within 3 months from date of permit issue or as agreed in writing by the Environment Agency</p>
IP3	<p>The operator shall confirm, achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved with respect to BATc 11. Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>Within 3 months from date of permit issue or as agreed in writing by the Environment Agency</p>
IP4	<p>The operator shall submit a copy of the monitoring results for TVOC emissions from the smoke chamber (A12) to the Environment Agency. The monitoring shall show the TVOC emission load in g/h and mg/Nm<sup>3</sup> to establish whether the BAT-AEL for TVOC (BAT 29 from the BAT Conclusions from the Food, Drink and Milk Industries, Dec 2019) is applicable for emission point A12.</p>	<p>Within 3 months of permit issue or other date as agreed in writing with the Environment Agency</p>

IP5	<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>	<p>Within 12 months of permit issue or other date as agreed in writing with the Environment Agency</p>
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