

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/DP3631RA
The Operator is: Danish Crown UK Limited
The Installation is: Danish Crown Bugle
This Variation Notice number is: EPR/DP3631RA/V003

What this document is about

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

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

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

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

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

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

How this document is structured

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

1 Our decision

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

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

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

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 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 1, 2, 5, 6 and 9. 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 Condition IC9 and IC10 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 07/06/2024 in relation to Reg.61 response tool concerning BATc 1, 2, 3, 5, 6, 7, 11, 15, 29, medium combustion plant, climate change adaption, containment, site plan, and site name, and 16/07/2024 in relation to Reg.61 response tool concerning BATc 7. A copy of each further information requests was placed on our public register.

3 The legal framework

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

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

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

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

Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

NA – Not Applicable

CC – Currently Compliant

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

NC – Not Compliant

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the Operator to demonstrate compliance with the BAT Conclusion requirement
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	<p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	FC	<p>The Operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are not satisfied that the Operator has demonstrated compliance with BATc 1.</p> <p>The Operator has an EMS which covers all the topics set out in BATc 1 except for an energy efficiency plan as laid out in BATc 6a. A revised EMS is required which incorporates an energy efficiency plan as per BATc 1 iv). We have added improvement condition IC9 to achieve compliance.</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	FC	<p>The Operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are not satisfied that the Operator has demonstrated compliance with BATc 2.</p> <p>The Operator declared:</p> <ul style="list-style-type: none"> • Carbon Desktop software employed with captures relevant data. Automatic sub-metering is included in this process which is verified by MCERTS. • Detailed process flows are held by the Operators food safety team. • Operator employs high pressure cleaning, low pressure foam cleaning, clean as you go policy depending on equipment. <p>The Operator has an EMS which covers all the topics set out in BATc 2 except for an energy efficiency plan as laid out in BATc 6a. A</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
			revised EMS is required which incorporates an energy efficiency plan for the purpose of outlining procedures to maintain and review energy consumption and efficiency. We have added improvement condition IC9 to achieve compliance.
3	<p>Monitoring key process parameters at key locations for emissions to water. For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	CC	<p>The Operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 3.</p> <p>The Operator monitors waste water and records values for flow, pH, and suspended solids daily. The sewerage authority, South West Water inspects the chemical oxygen demand (COD) with additional monitoring parameters set by the sewer authority.</p>
4	<p>Monitoring emissions to water to the required frequencies and standards. BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this installation.</p> <p>BATc 4 is applicable only to installations discharging process effluent to water and this site discharges only to sewer under consent therefore, BATc 4 is not applicable.</p>
5	<p>Monitoring channelled emissions to air to the required frequencies and standards. 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 installation operates three smoke chambers for the purpose of smoking meat. There is currently no monitoring in place. We</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
			have added improvement condition IC9 to achieve compliance.
6	<p>Energy Efficiency</p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	FC	<p>The Operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the Operator has demonstrated compliance with BATc 6.</p> <p>The Operator confirmed that they have no energy efficiency plan which correctly represents the installation. The Operator is currently in development of an updated energy efficiency plan. We have added improvement condition IC9 to ensure compliance.</p> <p>The Operator does not employ any techniques that were listed for BAT 6(b) but is aware that together with the BAT 6(a) energy efficiency plan, they will need to comply with one or more techniques in BAT 6(b).</p>
7	<p>Water and wastewater minimisation</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> <ul style="list-style-type: none"> (a) water recycling and/or reuse (b) Optimisation of water flow (c) Optimisation of water nozzles and hoses (d) Segregation of water streams <p>Techniques related to cleaning operations:</p> <ul style="list-style-type: none"> (e) Dry cleaning (f) Pigging system for pipes (g) High-pressure cleaning 	CC	<p>The Operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are not satisfied that the Operator has demonstrated compliance with BATc 7.</p> <p>The Operator is using the following techniques:</p> <ul style="list-style-type: none"> (a) Water reuse – Water within tray washing process and packing shrinking stains on productions lines 1,2, and 3 are reused. (e) Dry cleaning – Clean as you go policy in force using dry techniques where possible.

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
	(h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP) (i) Low-pressure foam and/or gel cleaning (j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible		(i) low-pressure foam – Also high pressure cleaning techniques employed where required.
8	<p>Prevent or reduce the use of harmful substances</p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> (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	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's cleaning procedures specify the use of products that are non-hazardous to the aquatic environment unless authorised by a hygiene department supervisor. These procedures are recorded in the third-party 'Holchem' gateway portal.</p> <p>New equipment and plant design considers the cleaning at the point of specification. Day to day floor waste is cleaned up by shovel and then a squeegee of liquid residue to avoid the use of detergents.</p> <p>The Operator is using the following techniques:</p> (a) Proper selection of cleaning chemicals and disinfectants. (c) Dry cleaning (d) Optimised design and construction of equipment and process areas
9	<p>Refrigerants</p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use</p>	FC	The Operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are

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
	refrigerants without ozone depletion potential and with a low global warming potential.		<p>not satisfied that the Operator has demonstrated compliance with BATc 9.</p> <p>The Operator provided details of all the refrigerants used through the production process. Currently the installation uses the below refrigerants in their production process:</p> <ul style="list-style-type: none"> • R-448a – x1 400kg • R-407A – x2 540kg • R-404a – x3 1850kg <p>The Operator has declared: While the current F-gases in use are of high global warming potential (GWP), refrigerants are being changed in a phased approach as the site is upgraded. The Operator has exchanged a 404a refrigerant with 448a on one system in 2022.</p> <p>Improvements are moving towards glycol systems with the F-Gas 2030 deadline however, no plan for this is in place. IC10 has been included to ensure compliance.</p>
10	<p>Resource efficiency In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading 	CC	<p>The Operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 10.</p> <p>The Operator is using the following techniques:</p> <ul style="list-style-type: none"> b) Use of residues – Animal byproducts are sold on for animal feed or re-processing

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11	<p>Waste water buffer storage In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>	CC	<p>The Operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 11.</p> <p>The installation's waste water is processed in the on-site effluent treatment plant (ETP). The Dissolved air flotation (DAF) balance tanks stores excess waste water not discharged to sewer. DAF tank 1 has a capacity of 8,000 litres and DAF tank 2 has a capacity of 3,000 litres.</p> <p>In addition, spill response procedures in place in the event of a yard spillage. Storm water runoff drainage can be held in reed bed by penstock. If necessary this can be tankered off site. There are spill kits located on site with spill response guidance and spill kit location map documentation to prepare staff in the event of a leak/spill.</p>
12	<p>Emissions to water – treatment 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</p>	CC	<p>The Operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 12.</p> <p>The Operator declared: From the sump, raw untreated water passes through the rotary filter to remove any large debris present. It then passes to the holding tanks ready for processing. From the holding tanks, water is pumped into DAF tank one via</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
	(f) Partial nitrification - anaerobic ammonium oxidation Phosphorus recovery and/or removal (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		<p>a number of tubes (flocculator) where chemicals are added to aid the separation of organic compounds (sludge) from the water. This sludge is then sent to the sludge tank for later removal by tanker.</p> <p>The cleaner water is then pumped into the selector tank where bacteria are present to digest the remaining compounds. The water is transferred to the aeration tank where the process continues. Water from the aeration tank is pumped into DAF tank two where the bacteria and sludge are removed and sent either to another sludge tank, back to the selector tank, or direct to the aeration tank depending on how well the plant is performing.</p> <p>The clean water is then discharged to the sewer under consent with the South West Water sewerage authority.</p> <p>The Operator has implemented the use of biological treatment but is not permitted to do so. This change is out of scope of the FDM review and requires a separate variation application to assess potential risks and changes in permitted activities.</p>
13	<p>Noise management plan</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"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; 	NA	<p>We are satisfied that BATc 13 is not applicable to this installation.</p> <p>There have been no substantiated noise complaints for this installation. There was a sound complaint in 2022 but it was caused by a refrigerated vehicle operating in high heat in</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the Operator to demonstrate compliance with the BAT Conclusion requirement
	<p>- a 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.</p>		<p>the summer. It was not part of any fixed machinery used in the production process.</p> <p>The Operator has created internal documents for 'noise monitoring', 'inventory of noise sources and controls', tracker to record non-conformance', and a 'aspect and impact register'.</p>
14	<p>Noise management</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 the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 14.</p> <p>The Operator is using the following techniques:</p> <p>(a) Appropriate location of equipment and buildings - Noisy trailers relocated to the back of the building where it is better shielded against noise.</p> <p>(b) Operational measures - Noise management procedures employed, 'noise monitoring', 'inventory of noise sources and controls', tracker to record non-conformance', and a 'aspect and impact register'.</p>
15	<p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; 	CC	<p>The Operator has provided information to support compliance with BATc 15. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 15.</p> <p>The Operator has an up to date odour management plan (OMP) which assesses the potential risk of odour to sensitive receptors</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>- an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures.</p>		<p>through its production process, primarily through the smoking of meats. While the plan is not formally approved by the EA, it incorporates all elements required of a OMP and is incorporated into the Installation's EMS.</p> <p>The installation has received four complaints, submitted either directly to the Installation or the via the Environment Agency between January 2012 to December 2023. All complaints regarding odour have been from one complainant, none of which have been substantiated.</p>						
Meat Processing sector BAT conclusions									
29	<p>Emissions to air – Meat Processing sector</p> <p>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.</p> <ul style="list-style-type: none"> a) Adsorption b) Thermal oxidation c) Wet scrubber d) Use of purified smoke <p style="text-align: center;"><i>Table 18</i></p> <p>BAT-associated emission level (BAT-AEL) for channelled TVOC emissions to air from a smoke chamber</p> <table border="1" data-bbox="280 1236 1205 1342"> <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/Nm³</td> <td>3-50 ⁽¹⁾ ⁽²⁾</td> </tr> </tbody> </table> <p>⁽¹⁾ The lower end of the range is typically achieved when using adsorption or thermal oxidation. ⁽²⁾ The BAT-AEL does not apply when the TVOC emission load is below 500 g/h.</p>	Parameter	Unit	BAT-AEL (average over the sampling period)	TVOC	mg/Nm ³	3-50 ⁽¹⁾ ⁽²⁾	CC	<p>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.</p> <p>The smokers use afterburner and hermetically sealed condensation process for smoke elimination which is an equivalent technique that falls under the technique of adsorption.</p> <p>The Operator was not able to provide an exact TVOC value but confirmed in their most recent monitoring that it was below 50 mg/m³ measured as a half-hour average. The smoker afterburners only discharges low levels (below 500 g/h) of total volatile organic compounds (TVOC) for 10-20 seconds per 3-4 hour cycle. While a limit of 50 mg/m³ is included in the</p>
Parameter	Unit	BAT-AEL (average over the sampling period)							
TVOC	mg/Nm ³	3-50 ⁽¹⁾ ⁽²⁾							

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>permit, BAT 29 AEL's do not apply if the TVOC emission load is below 500 g/h.</p> <p>There is currently no continuous monitoring in place for the smokers and IC9 regarding BATc 5 has been included to achieve compliance.</p>				
Meat Processing Sector Environmental Performance Levels							
EPL	<p>Environmental Performance Level – Specific energy consumption for the Meat Processing sub-sector</p> <p style="text-align: center;"><i>Table 16</i></p> <p style="text-align: center;">Indicative environmental performance level for specific energy consumption</p> <table border="1" data-bbox="280 715 1198 813"> <thead> <tr> <th data-bbox="280 715 741 774">Unit</th> <th data-bbox="741 715 1198 774">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 774 741 813">MWh/tonne of raw materials</td> <td data-bbox="741 774 1198 813">0,25-2,6 ⁽¹⁾ ⁽²⁾</td> </tr> </tbody> </table> <p>⁽¹⁾ The specific energy consumption level does not apply to the production of ready meals and soups. ⁽²⁾ 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 ⁽¹⁾ ⁽²⁾	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 for specific energy consumption.</p> <p>The Operator confirmed that their production process results in 0.17 MWh/tonnes of raw material (01/09/2021 to 31/08/2022).</p>
Unit	Specific energy consumption (yearly average)						
MWh/tonne of raw materials	0,25-2,6 ⁽¹⁾ ⁽²⁾						
EPL	<p>Environmental Performance Level – Specific waste water discharge for the Meat Processing sub-sector</p> <p style="text-align: center;"><i>Table 17</i></p> <p style="text-align: center;">Indicative environmental performance level for specific waste water discharge</p> <table border="1" data-bbox="280 1139 1198 1238"> <thead> <tr> <th data-bbox="280 1139 741 1182">Unit</th> <th data-bbox="741 1139 1198 1182">Specific waste water discharge(yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 1182 741 1238">m³/tonne of raw materials</td> <td data-bbox="741 1182 1198 1238">1,5-8,0 ⁽¹⁾</td> </tr> </tbody> </table> <p>⁽¹⁾ 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 ³ /tonne of raw materials	1,5-8,0 ⁽¹⁾	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 for specific waste water discharge.</p> <p>The Operator confirmed that their production process results in 0.98 m³/tonnes of raw material (01/09/21 to 31/08/22).</p>
Unit	Specific waste water discharge(yearly average)						
m ³ /tonne of raw materials	1,5-8,0 ⁽¹⁾						

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

We have updated permit conditions to those in the current generic permit template as a part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Capacity Threshold

The Environment Agency is looking to draw a “line in the sand” for permitted production capacity; a common understanding between the Operator and regulator for the emissions associated with a (maximum) level of production, whereby the maximum emissions have been demonstrated as causing no significant environmental impact.

We have included a permitted production level (capacity) within table S1.1 of the permit for the section 6.8 listed activity and we need to be confident that the level of emissions associated with this production level have been demonstrated to be acceptable.

The Operator has completed a H1 assessment of emissions for typical figures of production at the time of permitting.

The H1 assessment is no longer valid for the maximum capacity stated within the permit as it is likely that the production is now higher. We have included an improvement condition within the permit (IC11) which requires the Operator to revisit their H1 risk assessment for particulate emissions to air at the capacity limit figure that is now stated within table S1.1 of the permit.

Emissions to Air

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

The Operator has provided an up to date air emission plan.

Point sources for emission points A3 and A8 have been decommissioned and have been removed from the environmental permit and emission point plan.

Monitoring requirements and limits have been set for emission points A1, A4, A6. And A7 as listed in table S3.1 of the Environmental permit.

Implementing the requirements of the Medium Combustion Plant Directive

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 below:

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	1.2 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Gas oil (diesel)
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.	01/04/1998

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.

“Gas oil” includes diesel and is defined in Article 3(19) of the MCPD.

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

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

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

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

Soil & groundwater risk assessment (baseline report)

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

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

The Operator submitted a site condition report ‘*Complete App (H7)*’ during the original application received on ‘17/08/2005’. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

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

Hazardous Substances

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

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

The stage 1 assessment identified the hazardous substances used / stored on site. The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution

prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

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

The Operator is required to submit a relevant hazardous substances monitoring plan for review to the Environment Agency via improvement condition (IC12).

Climate Change Adaptation

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

The Operator has identified the installation as likely to be or has been affected by prolonged dry weather and drought, which we consider to be a severe weather event.

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

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

Containment

We asked the Operator 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 of all tanks;

- Tank reference/name
- Contents details
- 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.

We reviewed the information provided by the Operator. We are satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736. The Operator has rebuilt bunding and containment during the Reg.61 review to rectify deficiencies previously reported to bring it into compliance. Bunding integrity to be tested soon after completion.

Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IC1	The Operator shall provide the Agency with an expanded accident management plan, to include at least but not limited to the following hazards: fire; failure of containment of any of the activities identified in the Application Site Report; subsurface pipe leak; accidental spillage or leak threatening contamination of the surface water drainage system; failure of the effluent treatment plant. The accident management plan shall address the indicative BAT requirements described in Sector Guidance Note IPPC S6.11, Version 1, July 2003.
IC2	The Operator shall provide the Agency with a detailed site drainage plan showing the routing of all surface drainage and effluent drainage, all manholes and other access points, and all interceptors or other active control measures.
IC3	The Operator shall provide the Agency with a written inventory of emissions to air from emission points A1, A4, A5 and A6 in Table 2.2.1 of the permit. The methodology for undertaking any emission measurements shall be approved in writing by the Agency prior to commencement.
IC4	Using the inventory developed under item IP3 above, the Operator shall assess the potential impact of air emissions from the installation using the H1 assessment tool or another equivalent assessment.
IC5	The Operator shall provide a written report reviewing how noise from the installation audible outside the site boundary shall be further reduced. The report shall include, but not be limited to, a review of the noise caused by reversing alarms and refrigeration lorries. The report shall include proposed timescales for any actions that shall be approved in writing by the Agency.
IC6	The Operator shall submit a report reviewing how odours from emission points A1, A4, A6 will be controlled such that they are not detectable beyond the site boundary. The report shall include, but not be limited to a review of the effectiveness of the existing odour abatement equipment and its maintenance and shall include a timescale for any improvements identified. Following submission of this report the Operator shall undertake any measures notified in writing by the Agency to the timescales in the notification.

IC7	The Operator shall implement measures to improve the storage and bunding of the fuel oil container S9 such that any spillage is contained and may be fully recovered, having regard to the requirements set out in section 2.2.5 of the Agency Guidance Note IPPC S6.10, August 2003. The Operator shall inform the Agency in writing of the measures undertaken.
IC8	The Operator shall submit a written report to the Agency detailing how the indicative benchmark for mercury release to sewer as given in General Sector Guidance for Food and Drink S6.10, issue 1, August 2003 shall be achieved. The report shall include time-scales for implementation of any necessary improvements that shall be agreed with the Agency.

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

Improvement programme requirements		
Reference	Reason for inclusion	Justification of deadline
IC9	<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"> • Methodology applied for achieving BAT • Demonstrating that BAT has been achieved. <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 1, 2, 5 and 6. Refer to BAT Conclusions for a full description of the BAT requirement.</p>	3 months from date of issue or as agreed in writing by the Environment Agency 27/11/2024
IC10	<p>The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs.</p> <p>To demonstrate compliance against BAT 9, the operator shall produce a plan for the onsite refrigerant system(s) at the installation. The plan is to be assessed by the Environment Agency and shall be incorporated within the existing environmental management system.</p>	3 months from date of issue or as agreed in writing by the Environment Agency 27/11/2024

	<p>The plan should include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. • An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP. 	
IC11	<p>The Operator shall review and update the H1 risk assessment for particulate emissions to air at the capacity levels stated within table S1.1 of this permit. The H1 shall be submitted to the Environment Agency for review.</p>	<p>12 months from date of issue or as agreed in writing by the Environment Agency 27/08/2025</p>
IC12	<p>The Operator shall produce a monitoring plan detailing how the management of relevant hazardous substances which did not screen out as low risk, based on the RHS baseline assessment, will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval, including timescales to undertake any infrastructure improvements.</p>	<p>12 months from date of issue or as agreed in writing by the Environment Agency 27/08/2025</p>