

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/DP3339GW
The Operator is: Mars Petcare UK
The Installation is: Batley Pet Foods
This Variation Notice number is: EPR/DP3339GW/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 31/01/2022 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 23/05/2022.

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 BAT-EPL for energy. The operator currently hasn't demonstrated compliance with the requirements of BAT-EPL for energy. In relation to this BAT Conclusion, 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 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 a further information request on 28/11/2023 concerning BATcs 1, 5, 6(a), 8, 11, BAT-EPL for energy, Climate Change Adaptation, containment, H1 Assessment, MCPs input, RHS baseline, air emission points for drying processes, cooling towers, site plan, range of products, and non-technical description. A copy of the further information request was placed on our public register.

3 The legal framework

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

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

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

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

Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

NA – Not Applicable

CC – Currently Compliant

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

NC – Not Compliant

BATC No	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	<p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	CC	<p>The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.</p> <p>The operator has an environmental management system (EMS) externally accredited to the ISO14001 standard.</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The Operator declared they are using:</p> <ul style="list-style-type: none"> • Process flow diagrams to identify emission points. • Information about water mass balance • Monitoring of wastewater before being discharged to sewer to identify its pollution load • Monitoring of waste gases before their release into the atmosphere • Monitoring of resources to identify efficiency opportunities • Manual and automated monitoring system of resource used to reduce waste
3	<p>Monitoring key process parameters at key locations for emissions to water.</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
			The Operator declared they are monitoring, in house or via 3 rd party contractors, effluent flow, temperature, chemical oxygen demand (COD), suspended solids (SS), and settleable solids.
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 concerned with monitoring of process effluent discharged to water and this installation does not have such discharges.</p> <p>The site's effluent is treated in the on-site effluent treatment plant (ETP) prior to its discharge to the foul sewer for further processing by Yorkshire water.</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>	NA	<p>We are satisfied that BATc 5 is not applicable to this installation.</p> <p>This BATc is concerned with monitoring of dust emissions from processes such as grinding, drying, and cooling. Dust laden gases are passed through bio-filter and no dust is released to air, therefore, BATc 5 is not applicable.</p>
6	<p>Energy Efficiency 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>	CC	<p>The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 6.</p> <p>The Operator provided a copy of the Energy Efficiency Plan consisting of an Excel spread sheet in which efficiencies are identified, project leaders, targets, Capex, costs, and savings. In addition, the 'Bristall Energy Management</p>

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			<p>Procedure' identifies responsible stakeholders, audit and review provisions along with energy control measures, objectives, and assets energy profile characterisation.</p> <p>The following energy efficiency techniques are used at this site:</p> <ul style="list-style-type: none"> • Line 1 and ovens burner regulation and control, reviewed biannually • Energy efficient motors • LED lighting • Preheated feed water • Automated control systems • Reducing compressed air leaks • Insulation of all pipes to reduce heat loss
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> <p>(a) water recycling and/or reuse (b) Optimisation of water flow (c) Optimisation of water nozzles and hoses (d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p> <p>(e) Dry cleaning (f) Pigging system for pipes (g) High-pressure cleaning (h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP) (i) Low-pressure foam and/or gel cleaning (j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible</p>	CC	<p>The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The water and wastewater minimisation techniques used are:</p> <ul style="list-style-type: none"> • Optimisation of water nozzles and hoses • Optimisation of chemical dosing in CIP • High pressure cleaning for cleaning of mechanical parts. • Dry cleaning <p>Because this is a dry pet food installation, the use of water in the production process is minimal, and there is little opportunity to reduce this further therefore, we do not consider that BATc 7(a) is appropriate for this installation.</p>
8	Prevent or reduce the use of harmful substances	CC	The operator has provided information to support compliance with BATc 8. We have assessed the

BATC No	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	<p>In order to 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> <ul style="list-style-type: none"> (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>information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The Operator declared that they are using, in addition to dry cleaning, a chemical assessment procedure designed in line with existing regulations and the Mars Global Standard for Hazardous Substances with the scope of selecting the appropriate cleaning chemicals and disinfectants.</p>
9	<p>Refrigerants</p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	CC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The Operator declared that gases with a high global warming potential (GWP) have been identified and their replacement has been included in the phasing out plan. The plan contains the affected refrigeration units, type of gas used, its mass, and proposed replacement year.</p>
10	<p>Resource efficiency</p> <p>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 declared that, where waste is unavoidable, product which does not meet the required standards is re-worked back into the raw material mix at up to 10% inclusion. Any product that is not reusable is disposed of via off-site anaerobic digestion.</p>

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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>Factory effluent is passed through a series of three 25 ton tanks, each of these tanks perform a different task (aeration, settlement and pH adjustment). All 3 tanks are within a bunded area to prevent uncontrolled releases. Operational controls and monitoring are conducted via the factory PLC factory network where alarms are set to monitor flow, pH and faulty equipment so it can be rectified.</p> <p>In addition all liquid raw material silos are stored within bunded areas with delivery points inside the bund and can only be emptied manually. All the liquid silos have flow alarms that automatically shut the valves if there is an unexpected drop in the amount of material in the silo (this would limit leaks from pipework).</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 (f) Partial nitrification - anaerobic ammonium oxidation</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 they are using the following water treatment techniques, prior to discharge to sewer:</p> <ul style="list-style-type: none"> • Maceration • Physical separation • Chemical dosing • Equalisation and neutralisation • Biofiltration

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										
	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		<ul style="list-style-type: none"> Sedimentation 										
12	Emissions to water – treatment BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body <table border="1" data-bbox="282 767 1211 967"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (°) (°)</td> <td>25-100 mg/l (°)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (°)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (°) (°)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (°)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (°) (°) (daily average)	Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)	Total suspended solids (TSS)	4-50 mg/l (°)	Total nitrogen (TN)	2-20 mg/l (°) (°)	Total phosphorus (TP)	0,2-2 mg/l (°)	NA	<p>We are satisfied that BAT-AELs are not applicable to this installation.</p> <p>BAT-AELs are applicable to sites discharging to water of process effluent and this site discharges only to foul sewer. In addition, Note 1 of Table 1 of the BAT-AELs exempt dry pet food installations from having ELVs on discharges to water.</p> <p>As part of the permit review process, we are removing existing emission limits associated with process water discharged to sewer under consent, as these limits are set and monitored by the sewage undertaker, Yorkshire Water.</p>
Parameter	BAT-AEL (°) (°) (daily average)												
Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)												
Total suspended solids (TSS)	4-50 mg/l (°)												
Total nitrogen (TN)	2-20 mg/l (°) (°)												
Total phosphorus (TP)	0,2-2 mg/l (°)												
13	Noise management plan In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the 	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>										

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
	contributions of the sources and to implement prevention and/or reduction measures.		
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 declared that, as measures to manage noise emissions, the site has chosen to locate building and machinery away from sensitive receptors. In addition, no deliveries are made between 9pm to 7am.</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; - 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. 	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 Odour Management Plan (OMP) that was Agency requested via Improvement Condition IC2, marked as completed.</p> <p>A copy of the OMP has been provided as part of the Reg.61 Response and contains the following sections:</p> <ul style="list-style-type: none"> • Definitions • Odour assessment impacts and receptors • Control measures • Monitoring provisions • Control of odour release and contingency planning • Complaints investigation and actions • Responsibilities for reporting, reviewing, and control procedures

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PET FOOD BAT CONCLUSIONS (BAT 16-17)			
16	<p>Energy efficiency – Green fodder only In order to increase energy efficiency in green fodder processing, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below. (a) Use of pre-dried fodder (b) Recycling of waste gas from the dryer (c) Use of waste heat for pre-drying Applicable in addition to BAT6</p>	NA	<p>We are satisfied that BATc 16 is not applicable to this installation.</p> <p>This site produces only dry pet food, therefore, this BATc in not applicable.</p>
17	<p>Emissions to air – particulates In order to reduce channelled dust emissions to air, BAT is to use one of the techniques given; a. bag filter, b. cyclone.</p> <p>Note: There is no BAT-AEL for dry pet food production. However, we want to set an ELV to ensure this parameter is adequately controlled. These should be based on what the operator can achieve (if monitoring data is available) and should be in line with the compound animal feed BAT-AELs (10mg/m3 for grinding and/or 20mg/m3 for cooling). However, as it is not a BAT-AEL, no derogation in required if the operator cannot achieve this. We will ensure they have the correct abatement and set an appropriate ELV with an IC.</p>	NA	<p>We are satisfied that BATc 17 is not applicable to this site.</p> <p>The site does not have emissions of dust from grinding, drying, or cooling processes therefore, BATc 7 is not applicable.</p>
Animal Feed Environmental Performance Levels			

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>Environmental Performance Level – Energy Consumption for Pet Food</p> <table border="1" data-bbox="286 280 1173 600"> <thead> <tr> <th data-bbox="286 280 607 363">Product</th> <th data-bbox="607 280 920 363">Unit</th> <th data-bbox="920 280 1173 363">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="286 363 607 405">Compound food</td> <td data-bbox="607 363 920 405" rowspan="3">MWh/tonne of products</td> <td data-bbox="920 363 1173 405">0.01-0.10 ⁽¹⁾⁽²⁾⁽³⁾</td> </tr> <tr> <td data-bbox="286 405 607 446">Dry pet food</td> <td data-bbox="920 405 1173 446">0.39-0.50</td> </tr> <tr> <td data-bbox="286 446 607 488">Wet pet food</td> <td data-bbox="920 446 1173 488">0.33-0.85</td> </tr> <tr> <td colspan="3" data-bbox="286 488 1173 600"> <p>(1) The lower end of the range can be achieved when pelleting is not applied.</p> <p>(2) The specific energy consumption level may not apply when fish and other aquatic animals are used as raw material.</p> <p>(3) The upper end of the range is 0.12 MWh/tonne of products for installations located in cold climates and/or when teat treatment is used for Salmonella decontamination.</p> </td> </tr> </tbody> </table>	Product	Unit	Specific energy consumption (yearly average)	Compound food	MWh/tonne of products	0.01-0.10 ⁽¹⁾⁽²⁾⁽³⁾	Dry pet food	0.39-0.50	Wet pet food	0.33-0.85	<p>(1) The lower end of the range can be achieved when pelleting is not applied.</p> <p>(2) The specific energy consumption level may not apply when fish and other aquatic animals are used as raw material.</p> <p>(3) The upper end of the range is 0.12 MWh/tonne of products for installations located in cold climates and/or when teat treatment is used for Salmonella decontamination.</p>			<p>CC</p>	<p>The operator has provided information to support compliance with BATc 17. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 17.</p> <p>The operator reports that between during 2021 the site achieved a specific energy consumption of 1.18 MWh/tonne, which is outside the EPL range.</p> <p>The Operator submitted 2 copies of Climate Change Agreements (CCA) in support of the exemption with EPL limits invoked by the Operator. However, these documents submitted in 2012, CCA1 and CCA2 issued in 2001 and 2009, have an expiry date set for 2013 therefore, the non-applicability of BAT-EPL for energy invoked by the Operator cannot be considered.</p> <p>An updated CCA has been submitted in response to our request for further information, designed for the period 2021-2022 with the target of reducing energy consumption by 1.27%. This target has been achieved.</p> <p>However, having a CCA cannot be seen as a derogation from meeting the EPL requirements, and the Operator must propose a site specific EPL for energy consumption.</p> <p>We have included IC9 for the Operator to explain why the standard EPL cannot be achieved, and propose a site-specific EPL (see Annex 3).</p>
	Product	Unit	Specific energy consumption (yearly average)													
Compound food	MWh/tonne of products	0.01-0.10 ⁽¹⁾⁽²⁾⁽³⁾														
Dry pet food		0.39-0.50														
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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	Environmental performance level – Waste water discharge for Pet Food			NA	<p>We are satisfied that BAT-EPL for wastewater discharge is not applicable to this site.</p> <p>This EPL is applicable only to site producing wet pet food and this installation produces only dry pet food therefore, the BAT-EPL is not applicable.</p>
	Product	Unit	Specific waste water discharge (yearly average)		
	Wet pet food	m3/tonne of products	1.3-2.4		

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 not valid for the maximum capacity stated within the permit or if production is now higher. In addition, the Operator has identified that their effluent contains hazardous substances but an H1 Assessment has not been carried out. We have included an improvement condition within the permit (IC8) which requires the operator to revisit their H1 risk assessment for wastewater discharge and 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.

Implementing the requirements of the Medium Combustion Plant Directive

Existing Medium Combustion Plant (1MW-50MW)

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

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

The Operator provided the information in the table below:

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	9.2 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler 1 – 4.6 MWth Boiler 2 – 4.6 MWth
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural gas 100%
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.	Both boilers commissioned in June 2012

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, Boilers 1 and 2, the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030.

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

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

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

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

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

Soil & groundwater risk assessment (baseline report)

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

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

The Operator submitted a site condition report [Geo-environmental Study ref: 251252-01(00)] carried out in 2011 and submitted as part of the permit variation V002 duly made 04/07/2012. 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 not identified any hazardous substances used / stored at the installation.

Climate Change Adaptation

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

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

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

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

Containment

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

The Operator provided details of all tanks;

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

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

We reviewed the information provided by the operator and Area Officer, and no concerns have been raised. We are satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IC1	The Operator shall develop a written accident management plan having regard to the requirements set out in Section 2.8 of the Agency technical guidance note SGN IPPC S6.10, Issue 1, August 2003, and shall submit the plan in writing to the Agency.
IC2	The Operator shall develop and implement an Odour Management Plan for the Installation, having regard for the techniques described in the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003 and Technical Guidance Note IPPC H4, Horizontal Guidance for Odour Part 1 (Regulations and Permitting) and Part 2 (Assessment and Control). A copy of the Odour Management plan shall be submitted to the Agency.
IC3	The Operator shall develop a written Site Closure Plan having regard for the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003 and submit a copy to the Agency for approval.
IC4	The Operator shall carry out an assessment of the options available for dealing with process effluent with regard to Section 2.4 and 2.6 respectively of the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003, taking into account cleaning, water efficiency measures and options for dealing with the resulting process effluent. A written report summarising the techniques and options shall be submitted to the Agency. The report shall include a timescale for implementation of any improvements and shall be agreed in writing with the Agency.
IC5	The Operator shall develop and implement an Emissions Monitoring Programme based on the requirements of Table 2.10.1 in this Permit. The Programme shall have regard for the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003 and Technical Guidance Note M18, version 1, July 2004. The Programme shall have due regard for the Agency's requirement for the commence of all monitoring methods and procedures with appropriate monitoring standards such as CEN, BSI, ISO, etc. The Emissions Monitoring Programme shall be agreed in writing with Agency prior to implementation.
IC6	The Operator shall carry out a review of all available monitoring data for the release to sewer, including those generated by the Emissions Monitoring Programme implemented under Improvement Condition IC5. The review shall be submitted to the Agency and shall propose ELVs for the release to sewer, taking into account any variation to the discharge consent implemented by the Sewage Undertaker. Where

	the proposed ELVs deviate from those consistent with the application of BAT, the Operator shall justify any such deviation in conjunction with the requirements of Improvement Condition IC4. The Agency shall consider the proposals submitted and may set such ELVs as it considers appropriate for the control of the releases to sewer.
IC7	The Operator shall review the control options for the boiler combustion units, with the purpose of maintaining and maximising combustion efficiency whilst minimising emissions, having regard for the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. A report of the findings and proposed actions, with timescales for implementation, shall be supplied to the Agency.

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

Improvement programme requirements		
Reference	Reason for inclusion	Justification of deadline
IC8	The operator shall review and update the H1 risk assessment for emissions to water at the capacity levels stated within table S1.1 of this permit. The H1 shall be submitted to the Environment Agency for review.	12 months from permit issue or other date as agreed in writing with the Environment Agency
IC9	The operator shall confirm in writing to the Environment Agency that they have achieved the specific Environmental Performance Levels (EPLs) for specific energy consumption, where compliance with the EPL was not demonstrated at the time of R61 submission. Where an operator cannot achieve the EPL, they should provide a justification and derive a site-specific benchmark. Refer to BAT Conclusions for a full description of the requirements.	3 months from date of issue or as agreed in writing by the Environment Agency