

# **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/RP3604PT  
The Operator is:                         Fold Hill Foods Liverpool Limited  
The Installation is:                     Aintree Petfood Plant  
This Variation Notice number is:   EPR/RP3604PT/V004

### **What this document is about**

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

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

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

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

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

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

## **How this document is structured**

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

# 1 Our decision

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

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

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

## 2 How we reached our decision

### 2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 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 27/05/2022.

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 1, 5, 6, AELs to air and EPLs for the sector. The operator does not currently comply with the requirements of BATc 1, 5, 6, AELs to air and EPL. In relation to these BAT Conclusions, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Conditions 8, 9 and 10 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

## 2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 06/04/2023 concerning BATc 3, 5, 6, 9, 17, EPL for specific energy consumption, updated site plan including air emission points. A clarification request was made on 11/05/2023 regarding the air emission point associated with grinding/extruder and/or cooling activities, EPL for energy, and products range. 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
<b>GENERAL BAT CONCLUSIONS (BAT 1-15)</b>			
1	<p><b>Environmental Management System - Improve overall environmental performance.</b></p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	<b>FC</b>	<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><b>The Operator has declared future compliance in relation to BATc 1 (ii)(x)(xvi)(xvii) to meet the requirement for the EMS to contain all aspects listed in this BATc.</b></p> <p>The operator does not have an EMS externally accredited to the ISO14001 standard.</p> <p>We consider that the operator will be future compliant with BATc 1. Improvement condition 8 has been included in the permit to achieve compliance (see Annex 3).</p>
2	<p><b>EMS Inventory of inputs &amp; outputs. Increase resource efficiency and reduce emissions.</b></p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	<b>CC</b>	<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 demonstrated compliance by providing the following:</p> <ul style="list-style-type: none"> <li>• Simplified process diagram</li> <li>• Information about water usage</li> <li>• Average wastewater sewer discharge flow</li> <li>• Energy consumption monitoring and raw materials usage inventory</li> <li>• Energy performance surveys</li> </ul>
3	<p><b>Monitoring key process parameters at key locations for emissions to water.</b></p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	<b>NA</b>	<p>We are satisfied that BATc 3 is not applicable to this Installation.</p> <p>The Operator declared that wastewater emissions from the process have a very low volume, average of 7.5 m<sup>3</sup>/d, and thus are discharged</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
			directly to sewer under consent from United Utilities.
4	<p><b>Monitoring emissions to water to the required frequencies and standards.</b></p> <p>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>The Operator declared that there is no discharge to surface water of process effluent and this BATc is applicable only to trade effluent directly discharge to water.</p>
5	<p><b>Monitoring channelled emissions to air to the required frequencies and standards.</b></p> <p>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><b>The Operator indicated they are not monitoring any exhaust gases resulting from grinding and cooling processes taking place at this installation.</b></p> <p>We consider that the operator will be future compliant with BATc 6. Improvement condition 8 has been included in the permit to achieve compliance (see Annex 3).</p>
6	<p><b>Energy Efficiency</b></p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	FC	<p>The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 6.</p> <p>The Operator declared using the following energy efficiency techniques:</p> <ul style="list-style-type: none"> <li>• Variable speed drives</li> <li>• LED lighting</li> </ul> <p><b>The Operator does not currently have an Energy efficiency plan as per BATc 6(a) requirement but declared that it will be compliant by 04/12/2023.</b></p> <p>We consider that the operator will be future compliant with BATc 6. Improvement condition 8</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
			has been included in the permit to achieve compliance (see Annex 3).
7	<p><b>Water and wastewater minimisation</b></p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse  (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 7.</p> <p>The Operator demonstrated compliance using the following energy efficiency techniques:</p> <ul style="list-style-type: none"> <li>• Optimisation of water flow</li> <li>• Optimisation of water nozzles and hoses</li> <li>• Dry cleaning</li> <li>• Optimised design of equipment and process areas</li> <li>• Cleaning equipment as soon as possible.</li> </ul>
8	<p><b>Prevent or reduce the use of harmful substances</b></p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants  (b) Reuse of cleaning chemicals in cleaning-in-place (CIP)  (c) Dry cleaning  (d) Optimised design and construction of equipment and process areas</p>	CC	<p>The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The Operator declared using:</p> <ul style="list-style-type: none"> <li>• Proper selection of chemicals and/or disinfectants</li> <li>• Dry cleaning</li> <li>• Optimised design and construction of equipment and process areas</li> </ul>
9	<p><b>Refrigerants</b></p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing,</p>	NA	<p>We are satisfied that BATc 9 is not applicable to this Installation.</p> <p>The Operator declared that is not using any refrigerant gases for production or storage</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
	BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.		purposes. The existing F-gases existent on the site are used of domestic air conditioning.
10	<p><b>Resource efficiency</b>            In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> <li>(a) Anaerobic digestion</li> <li>(b) Use of residues</li> <li>(c) Separation of residues</li> <li>(d) Recovery and reuse of residues from the pasteuriser</li> <li>(e) Phosphorus recovery as struvite</li> <li>(f) Use of waste water for land spreading</li> </ul>	<b>CC</b>	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The Operator declared:</p> <ul style="list-style-type: none"> <li>• Sending discarded material for off-site anaerobic digestion operated by a third party</li> </ul>
11	<p><b>Waste water buffer storage</b>            In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>	<b>NA</b>	<p>We are satisfied that BATc 11 is not applicable to this Installation.</p> <p>The Operator declared that wastewater emissions from the process have a very low volume and thus are discharged directly to sewer under consent from United Utilities, with no effluent being stored on site.</p>
12	<p><b>Emissions to water – treatment</b>            In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <ul style="list-style-type: none"> <li>(a) Equalisation</li> <li>(b) Neutralisation</li> <li>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</li> </ul> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <ul style="list-style-type: none"> <li>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</li> <li>(e) Nitrification and/or denitrification</li> <li>(f) Partial nitrification - anaerobic ammonium oxidation</li> </ul> <p>Phosphorus recovery and/or removal</p> <ul style="list-style-type: none"> <li>(g) Phosphorus recovery as struvite</li> </ul>	<b>NA</b>	<p>We are satisfied that BATc 12 is not applicable to this Installation.</p> <p>This BATc is only applicable to installations where process water is being discharged to surface water bodies and this site has no such discharges.</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										
	(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												
12	<p><b>Emissions to water – treatment</b>  <b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (1) (2) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (3) (4)</td> <td>25-100 mg/l (5)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (6)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (7) (8)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (9)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (1) (2) (daily average)	Chemical oxygen demand (COD) (3) (4)	25-100 mg/l (5)	Total suspended solids (TSS)	4-50 mg/l (6)	Total nitrogen (TN)	2-20 mg/l (7) (8)	Total phosphorus (TP)	0,2-2 mg/l (9)	NA	<p>We are satisfied that BAT-AELs are not applicable to this Installation.</p> <p>This BAT-AELs are only applicable where there are direct discharges of wastewaters to surface water and this site does not have direct discharges of wastewaters.</p>
Parameter	BAT-AEL (1) (2) (daily average)												
Chemical oxygen demand (COD) (3) (4)	25-100 mg/l (5)												
Total suspended solids (TSS)	4-50 mg/l (6)												
Total nitrogen (TN)	2-20 mg/l (7) (8)												
Total phosphorus (TP)	0,2-2 mg/l (9)												
13	<p><b>Noise management plan</b></p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> <li>- a protocol containing actions and timelines;</li> <li>- a protocol for conducting noise emissions monitoring;</li> <li>- a protocol for response to identified noise events, eg complaints;</li> <li>- a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.</li> </ul>	NA	<p>We are satisfied that BATc 13 is not applicable to this Installation.</p> <p>A noise management plan is only required where noise nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated noise nuisance from the site therefore an NMP is not a requirement for this site.</p>										
14	<p><b>Noise management</b></p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below.</p>	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</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
	(a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement		operator has demonstrated compliance with BATc 14. The noise management techniques used at this site are: <ul style="list-style-type: none"> <li>• Appropriate location of equipment and buildings</li> <li>• Operational measures including restricted deliveries to day times only</li> <li>• Low-noise equipment in the form of electric fork-lifts</li> <li>• Noise control equipment installed for grinder and air compressor</li> </ul>
15	<b>Odour Management</b> In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: - 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.	<b>NA</b>	We are satisfied that BATc 15 is not applicable to this Installation. An odour management plan is only required where odour nuisance at sensitive receptors is expected or has been substantiated. There have been no substantiated odour nuisance from the site recently, therefore this BATc is not applicable.
<b>PET FOOD BAT CONCLUSIONS (BAT 16-17)</b>			
16	<b>Energy efficiency – Green fodder only</b> 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 predried fodder (b) Recycling of waste gas from the dryer (c) Use of waste heat for pre-drying Applicable in addition to BAT6	<b>N/A</b>	The site does not process green fodder. We are therefore satisfied that BATc 16 is not applicable for this site.

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
17	<p><b>Emissions to air – particulates</b></p> <p>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 <u>compound</u> animal feed BAT-AELs (10mg/m<sup>3</sup> for grinding and/or 20mg/m<sup>3</sup> for cooling). However, as it is not a BAT-AEL, no derogation <u>ins</u> required if the operator cannot achieve this. We will ensure they have the correct abatement and set an appropriate ELV with an IC.</p>	FC	<p>The operator has provided information to support compliance with BAT-AELs. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BAT-AELs.</p> <p><b>The Operator declared that it is not monitoring emissions from dryers, coolers, and grinders, and, as such, it was unable to provide any monitoring results.</b></p> <p>We take this opportunity to include in the in the consolidated permit the upper ELV limits for existing grinder, A16, at 10 mg/m<sup>3</sup>.</p> <p>We consider that the operator will be future compliant with BAT-EPL for energy. Improvement condition 9 has been included in the permit to achieve compliance (see Annex 3).</p>
<b>Animal Feed Environmental Performance Levels</b>			
EPL	<b>Environmental Performance Level – Energy Consumption for Pet Food</b>		
	Product	Unit	Specific energy consumption (yearly average)
	Compound food	MWh/tonne of products	0.01-0.10 <sup>(1)(2)(3)</sup>
	Dry pet food		0.39-0.50
	Wet pet food		0.33-0.85
(1) The lower end of the range can be achieved when pelleting is not applied. (2) The specific energy consumption level may not apply when fish and other aquatic animals are used as raw material. (3) The upper end of the range is 0.12 MWh/tonne of products for installations located in cold climates and/or when heat treatment is used for Salmonella decontamination.			
	<p>FC</p> <p>The operator has provided information to support compliance with BAT-EPL for energy consumption. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BAT-EPL.</p> <p><b>The operator reports that during 2022 the site achieved a specific energy consumption of 1,195 MWh/t, shown in the 'PI reporting forms documents submitted as part of the RFI, which is outside the EPL range of 0.39-0.5 MWh/tonne for dry food pet sector. For context, the average energy usage recorded between 2012-2022 is approximately 1.5 MWh/tonne.</b></p> <p>We consider that the operator will be future compliant with BAT-EPL for energy. Improvement condition 10 has been included in the permit to achieve compliance (see Annex 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	
EPL	<b>Environmental performance level – Waste water discharge for Pet Food</b>		<p>We are happy this BAT-EPL is not applicable for this installations.</p> <p>This BAT-EPL is applicable only to wastewater discharges from wet pet food manufacturing. This installation is producing only dry pet food and has no direct wastewater discharges.</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**

- 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. 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.

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

**There are no MCPs operated at this site.**

### **Particulate Emissions**

BAT-AELs are derived for those substances identified as key environmental issues during the BREF review process.

We have incorporated an improvement condition (IC9) to ensure the monitoring is carried out as soon as reasonably practical prior to December 2023 for these emission points

We have added an improvement condition (IC12) for size fractionation of particulate emissions because a BAT-AEL applies for dust emissions to air. The justification for this IC is that there are a number of activities within the FDM sector which may result in release of particulates to air e.g. drying, milling and grinding. Overall there is little available information on how much fine particulates are released. This IC is a one-off exercise requiring operators to monitor and report on the fractions of fine particulate (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions and increase our understanding of potential health effects. Where BAT-AELs may apply to multiple emission points e.g. grain milling, we may accept limited representative monitoring rather than expecting them to monitor every single emission point.

### **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 [Ref. number 13514540710.502/B.0 completed in January 2016] and provided a copy of this report as part of the Operator's Reg.61 Response received by the Environment Agency on 27/05/2022. 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. 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 stated that the installation is not likely to be or has previously not been affected by climate change.

### **Containment**

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

The Operator declared that there are no tanks containing potentially polluting substances



## Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

<b>Superseded Improvement Conditions – Removed from permit as marked as “complete”</b>	
<b>Reference</b>	<b>Improvement Condition</b>
IC1	The Operator is required to implement improvement measures to reduce noise emissions from two sources; the ventilation extract at the bakery machine end (identified as source 11 in the Noise Impact Assessment, dated August 2004) and the rear of the bakery by line 1 AC Unit (identified as source 12 in the Noise Impact Assessment, dated August 2004).
IC2	The Operator shall produce an Energy Efficiency Plan having regard to the requirements set out in Section 2.7.2 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003). The Plan shall be submitted to the Agency in writing.
IC3	The Operator shall develop a written Site Closure Plan having regard to the requirements set out in Section 2.11 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003). The Plan shall be submitted to the Agency in writing.
IC4	The Operator shall develop and implement an Odour Management Plan, which shall include routine site olfactory assessment checks and will detail the preventative maintenance regimes to be undertaken to avoid failure of the activated carbon abatement units and shall have regard to the requirements set out in Section 2.2.6 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003). The Plan shall be submitted to the Agency in writing.
IC5	The Operator is required to implement improvements to the vegetable oil tank to ensure there is adequate containment and overflow protection is installed. The Operator is required to provide adequate containment facilities for the waste oil drums and waste digest drums. The improvements will take into account the requirements of section 2.2.5 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003).
IC6	Upon completion of measures undertaken in Improvement Condition1, the Operator shall carry out a further Noise Impact Assessment, in accordance with BS4142, to quantify the reduction in noise emissions as a result of the improvements undertaken and to assess the noise emissions from the remaining sources. A written report summarising the findings shall be submitted to the Agency. A time scale for implementation of any further improvements shall be agreed with the Agency. The Operator shall then produce and implement a Noise Management Plan which shall have regard to the requirement set out in Section 2.9 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003). The Plan shall be submitted to the Agency in writing.

IC7	The Operator shall develop and implement a documented system of environmental management techniques, having regard to the requirements set out in Section 2.3 of the Agency Guidance Note (IPPC S6.10, Issue 1 August 2003).
-----	--

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

<b>Improvement programme requirements</b>		
<b>Reference</b>	<b>Reason for inclusion</b>	<b>Justification of deadline</b>
IC8	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 4 December 2023. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Methodology for achieving BAT</li> <li>2) Associated targets /timelines for reaching compliance by 4 December 2023</li> <li>3) Any alterations to the initial plan (in progress reports).</li> </ol> <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 1, 5, and 6.</p> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	04/12/2023
IC9	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the Best Available Techniques Conclusion Associated Emission Levels (BAT-AELs) where BAT is currently not achieved, but will be achieved before 4 December 2023. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Current performance against the BAT-AELs.</li> <li>2) Methodology for reaching the BAT-AELs.</li> <li>3) Associated targets /timelines for reaching compliance by 4 December 2023.</li> <li>4) Any alterations to the initial plan (in progress reports).</li> </ol> <p>The report shall address the BAT Conclusions for Food, Drink and Milk industries with respect to the following:</p>	04/12/2023

	<ul style="list-style-type: none"> <li>• BAT 17 Table 4 (compliance with BAT-AELs for channelled dust emissions to air from grinding and pellet cooling in compound feed manufacture)</li> </ul> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	
IC10	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the Environmental Performance Levels (EPLs) for specific energy consumption, where the EPL is not currently achieved.</p> <p>The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Methodology for achieving EPL in accordance with general techniques given in section 1.3 of the BAT conclusions</li> <li>2) Associated targets /timelines for reaching compliance by 4 December 2023</li> <li>3) Any alterations to the initial plan (in progress reports).</li> </ol> <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to sections 1.3 and 2.1 of the BAT conclusions. Refer to BAT Conclusions for a full description of the requirements.</p>	04/12/2023
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>	12 months from permit issue or other date as agreed in writing with the Environment Agency.
IC12	<p>The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point [A16], identifying the fractions within the PM<sub>10</sub> and PM<sub>2.5</sub> ranges. The monitoring shall be carried out under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency.</p>	12 months from permit issue or other date as agreed in writing with the Environment Agency.