

# **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**

Permit number	EPR/FP3630CL
Operator	ForFarmers UK Limited
Facility	Penrith Animal Feed Mill
Variation notice reference	EPR/FP3630CL/V005

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

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

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

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

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

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

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) 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 21/04/2021.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review.

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 BATc 17. The Operator does not currently comply with the requirements of BATc 17. The operator has committed to compliance by 4<sup>th</sup> December 2023. We have therefore included Improvement Conditions IC1 and IC2 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

### **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 following features as described within the BATc 1.</p>	<b>CC</b>	<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 BATc1.</p> <p>The operator has an environmental management system which is externally accredited to ISO14001 and ISO50001.</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 is externally accredited to ISO14001 and ISO50001.</p> <p>The Site holds Inventories for Water, Energy, Raw Material Consumption (via process control system / SAP MIVA), Waste Water &amp; Waste Gas Streams which form part of the National &amp; Site EMS system. These are reviewed at least 6 monthly as part of the Site EMS / EnMS Meetings.</p>
3	<p><b>Monitoring key process parameters at key locations for emissions to water.</b></p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	<b>CC</b>	<p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p> <p>The only discharge to water is uncontaminated surface water to Myers Beck. Vehicle Wash, Boiler Blowdown &amp; Compressor Oil/Water Separator effluents are discharged to sewer via a three stage interceptor, which separates out solids. Sampling is undertaken to demonstrate compliance against the limits within the consent to discharge with the sewerage undertaker (United Utilities).</p>
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 and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	<b>CC</b>	<p>The operator has provided information to support compliance with BATc 4. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 4.</p> <p>No discharges to water with the exception of uncontaminated surface waters from the yard area hence no monitoring is required for compliance with the BATC, and none will be set in the permit.</p>

5	<p><b>Monitoring channelled emissions to air to the required frequencies and standards.</b>  BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.</p>	<p><b>CC for Pellet Coolers</b></p> <p><b>FC for Grinders</b></p>	<p><b>Coolers</b>  The site undertakes annual MCERTS testing of air emissions for total particulates from coolers using an approved contractor following EN 13284-1 standard. The requirement for annual monitoring of particulates is retained in the permit in order to ensure compliance with the BATc.</p> <p>The operator has provided information to support compliance with BATc 5. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 5.</p> <p><b>Grinders</b>  As per the requirements of the FDM BATc air emissions from grinders will also be monitored annually for total particulate by 03.12.2023 using MCERTS and EN 13284-1 standards - marking up of appropriate sampling points and safe access is being progressed by the ForFarmers UK Engineering &amp; Projects Team.</p> <p>There are currently no MCERTS monitoring points on the emissions from the grinders. The Operator is progressing installation of appropriate sampling points and safe access. IC3 has been set to ensure that this work is completed and reported to the EA. The monitoring requirements of the BATc are included, post-dated, in the permit to ensure compliance. See Annex 3.</p>
6	<p><b>Energy Efficiency</b>  In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	<p><b>CC</b></p>	<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 has an energy management system which is externally accredited to ISO 50001.</p>
7	<p><b>Water and wastewater minimisation</b>  In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <ul style="list-style-type: none"> <li>(a) water recycling and/or reuse</li> <li>(b) Optimisation of water flow</li> <li>(c) Optimisation of water nozzles and hoses</li> <li>(d) Segregation of water streams</li> </ul> <p>Techniques related to cleaning operations:</p> <ul style="list-style-type: none"> <li>(e) Dry cleaning</li> <li>(f) Pigging system for pipes</li> <li>(g) High-pressure cleaning</li> <li>(h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP)</li> <li>(i) Low-pressure foam and/or gel cleaning</li> </ul>	<p><b>CC</b></p>	<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>Animal Feed Manufacture is essentially a dry process, with low water usage and limited potential for water saving &amp; application of BAT techniques.</p> <p>The site recovers steam condensate via a condensate returns system to the hot well tank, 6 monthly steam trap surveys are also undertaken to ensure the system is working efficiently.</p> <p>The site has a 25,000 litre rainwater capture tank for vehicle washing, reducing the use of potable water, along with dry cleaning of manufacturing site and interior of vehicles via central vacuum system</p>

	(j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible		
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>No priority hazardous substances or specific substances are used at the installation. The operator has a procedure in place to assess chemicals used in the installation and identify potential alternatives less harmful to the environment.</p>
9	<p><b>Refrigerants</b></p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	CC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The operator has three small scale refrigerant systems at the installation. Two 3.8KG systems and one 1.3KG system all containing R410a. These units are for the control room and offices and are not integral to the main listed activity. The operator regularly services the units with an approved F-gas engineer and where possible gases with lower GWP are selected in accordance with the F-gas regulations.</p>
10	<p><b>Resource efficiency</b></p> <p>In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <p>(a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading</p>	CC	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>a) Waste which cannot be re-used within the manufacturing process is sent as feed waste for anaerobic digestion equating to circa 0.01% / annum of total production b) The process uses residues in the form of remix equating to &lt;1% of yield, which is re- included back into the process at a set %. The site is focussed on maximum yield and averages &gt;99% c) Feed waste is segregated from remix d) N/A e) N/A f) N/A</p>



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>CC</b>	<p>The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 11.</p> <p>The site has a 3 stage interceptor on the vehicle wash which routes to foul sewer. There are minimal process effluents due to the dry nature of the operations at the installation, so buffer storage of waste water is not required.</p> <p>For surface water drains there is a surface water isolation valve, which can be manually closed in the event of a pollution event.</p>
12	<p><b>Emissions to water – treatment</b>  In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.  Preliminary, primary and general treatment  (a) Equalisation  (b) Neutralisation  (c) Physical separate (eg screens, sieves, primary settlement tanks etc)  Aerobic and/or anaerobic treatment (secondary treatment)  (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)  (e) Nitrification and/or denitrification  (f) Partial nitrification - anaerobic ammonium oxidation  Phosphorus recovery and/or removal  (g) Phosphorus recovery as struvite  (h) Precipitation  (i) Enhanced biological phosphorus removal  Final solids removal  (j) Coagulation and flocculation  (k) Sedimentation  (l) Filtration (eg sand filtration, microfiltration, ultrafiltration)  (m) Flotation</p>	<b>NA</b>	<p>No emissions to water of process effluents.</p>
13	<p><b>Noise management plan</b>  In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental</p>	<b>NA</b>	<p>BAT 13 is only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated, or if forms part of an existing permit requirement.</p> <p>The Operator undertakes daily noise monitoring checks as a part of its EMS, machinery is maintained using a planned preventative maintenance system,</p>

	<p>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>		<p>wherever possible windows &amp; doors are kept shut. Vibration monitoring on key plant. One way systems are in place and loading areas are enclosed. A root cause analysis system is in place to investigate any complaints received.</p> <p>There is no existing permit requirement for noise and the site has no recent history of noise complaints, therefore we agree a noise management plan is not currently required for this installation.</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> <ul style="list-style-type: none"> <li>(a) Appropriate location of equipment and buildings</li> <li>(b) Operational measures</li> <li>(c) Low-noise equipment</li> <li>(d) Noise control equipment</li> <li>(e) Noise abatement</li> </ul>	<b>CC</b>	<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>Appropriate noise minimisation measures are in place:-</p> <ul style="list-style-type: none"> <li>Windows &amp; Doors kept shut</li> <li>Vibration Monitoring</li> <li>Maintenance routines</li> <li>Daily EMS checks</li> <li>Training &amp; Work Instructions</li> <li>Enclosed loading areas</li> <li>Vehicles switched off when loading</li> </ul>
15	<p><b>Odour Management</b></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"> <li>- a protocol containing actions and timelines;</li> <li>- a protocol for conducting odour monitoring.</li> <li>- a protocol for response to identified odour incidents eg complaints;</li> <li>- an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures.</li> </ul>	<b>CC</b>	<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 site has an Odour Management Plan summarising potential odour emission points and control measures.</p>
<b>ANIMAL FEED BAT CONCLUSIONS (BAT 16-17)</b>			
16	<b>Energy Efficiency (green fodder only)</b>	<b>N/A</b>	Not applicable for this site.

	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																
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> <table border="1"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Specific process</th> <th rowspan="2">Unit</th> <th colspan="2">BAT-AEL (average over the sampling period)</th> </tr> <tr> <th>New plants</th> <th>Existing plants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Dust</td> <td>Grinding</td> <td rowspan="2">mg/Nm<sup>3</sup></td> <td>&lt;2-5</td> <td>&lt;2-10</td> </tr> <tr> <td>Pellet cooling</td> <td colspan="2" style="text-align: center;">&lt;2-20</td> </tr> </tbody> </table>	Parameter	Specific process	Unit	BAT-AEL (average over the sampling period)		New plants	Existing plants	Dust	Grinding	mg/Nm <sup>3</sup>	<2-5	<2-10	Pellet cooling	<2-20		<p><b>CC for Pellet Coolers</b></p> <p><b>Pellet coolers</b></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 existing emission limit value (ELV) for the pellet coolers was 50mg/Nm<sup>3</sup> for particulate emissions. Because this is existing plant we believe it is appropriate to set the new ELV at the top of the range. A new ELV of 20mg/Nm<sup>3</sup> will be included in the varied permit to ensure compliance with the BAT-AEL.</p> <p>The operator only had two exceedances of the new limit within last 5 years. Investigated as product related, the product has been reformed and no exceedances have occurred since 2021.</p> <p>Monitoring data suggests the operator can comply with the revised ELV of 20 mg/Nm<sup>3</sup> now, therefore we are including this limit within the permit from date of issue and are choosing to not future date this BAT AEL.</p> <p><b>FC for Grinders</b></p> <p><b>Grinders</b></p> <p>The operator has planned capital expenditure to extend the grinder exhaust ducting. This is planned for 2021. Once the ducts have been suitably extended MCERTS testing will be organised during 2022 to ensure compliance before 03.12.2023.</p> <p>Evidence from other ForFarmers sites which have undertaken grinder emission testing as part of their permit requirements indicate that there should be no issue with Penrith site achieving BAT AEL.</p> <p>We consider that the operator will be future compliant with BATc 17 Improvement conditions IC1 and IC2 have been included in the permit to achieve compliance (see Annex 3 for further information).</p> <p>Capital expenditure planned for 2021. MCERTs monitoring planned for 2022.</p>
Parameter	Specific process				Unit	BAT-AEL (average over the sampling period)											
		New plants	Existing plants														
Dust	Grinding	mg/Nm <sup>3</sup>	<2-5	<2-10													
	Pellet cooling		<2-20														
<b>Animal Feed Environmental Performance Levels</b>																	
EPL	<p><b>Environmental Performance Level – Energy Consumption for Animal Feed</b></p> <table border="1"> <thead> <tr> <th>Product</th> <th>Unit</th> <th>Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Product	Unit	Specific energy consumption (yearly average)				<p><b>CC</b></p> <p>The operator has provided information to support compliance with the energy EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with the energy consumption for Animal Feed.</p> <p>The compound food figure of 0.01-0.10 is appropriate for this installation.</p>									
Product	Unit	Specific energy consumption (yearly average)															

	Compound food	MWh/tonne of products	0.01-0.10 <sup>(1)(2)(3)</sup>		The operators range between 2014 and 2020 was 0.052 to 0.061 MWh/t, which is well within the target, reflecting the good energy management in place at this installation.
	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 heat treatment is used for Salmonella decontamination.</p>				
EPL	<b>Environmental performance level – Waste water discharge for Animal Feed</b>			NA	N/A – Dry process only.
	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 and consolidating the permit**

We have made the following administrative changes to the permit

- Introductory note (updated)
- Site plan and air emission plan (updated)
- Table S1.1 overhaul
  - Activity reference (AR) renumbering
  - Updated listed activities
  - Adding 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 done an H1 assessment of emissions for typical figures of production at the time of permitting. The H1 assessment is not valid for the maximum capacity or if production is now higher. We have included an improvement condition within the permit (IC5) 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.

### **Details of all 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**

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:

1. Rated thermal input (MW) of the medium combustion plant.	1.8 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler

3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural Gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	01/04/1980

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

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

We have included the appropriate emission limit values and monitoring requirements 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.

### **Particulate Emissions**

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

If the operator has identified current compliance with BAT-AELs (from the BATcs) we are implementing the emission limit value (ELV) from the date of permit issue. This is relevant for emission points A1, A2 and A3 against BAT 17 for particulate emissions from the coolers.

For emission points noted to be future compliant we are including an interim ELV and monitoring requirements from the date of permit issue. This is relevant for emission points A18 and A19. However, the operator is currently unable undertake particulate monitoring on the grinder emission points A18 and A19; investment is planned to install sampling platforms and ports to enable monitoring to take place in accordance with the MCERTs standard. Therefore we have been unable to include an interim ELV and we have incorporated an improvement condition (IC3) 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 (IC4) 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 eg 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 apply to multiple emission points eg grain milling, we may accept limited representative monitoring rather than expecting them to monitor every single emission point.

### **Details of 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 completed a site condition report ‘Baseline Report’ SLR Ref: 406.05827.00002.008 dated October 2016. The report did not contain the results of intrusive samples of soil or groundwater; the report was a desk based study. The operator therefore did not establish baseline conditions for the installation, accepting ‘zero contamination’ as the baseline for the site. The site has operated since 1979/80 as an animal feed mill prior to falling under the environmental permitting regulations and was farmland prior to this.

### **Hazardous Substances**

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

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

The stage 1 assessment identified the hazardous substances used / stored on site.

The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

The outcomes of the three stage assessment identified that pollution of soil and/or ground water to be unlikely. Therefore we consider the generic condition 3.1.3 for periodic monitoring of soil and groundwater to be appropriate for this site, no additional monitoring is required at this time.

### **Climate Change Adaptation**

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

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

We consider the climate change adaptation plan to list appropriate mitigation measures and to be appropriate for the installation.

### **Underground Structures**

The operator has confirmed there are no underground structures at the installation.





### **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).

If the consolidated permit contains existing improvement conditions that are not yet complete or the opportunity has been taken to delete completed improvement conditions then the numbering in the table below will not be consecutive as these are only the improvement conditions arising from this permit variation.

<b>Improvement programme requirements</b>		
<b>Reference</b>	<b>Improvement condition and reason for inclusion if required</b>	<b>Deadline and justification for timescale if required</b>
IC1	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the Best Available Techniques 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> <ul style="list-style-type: none"> <li>• BAT 17 Table 4 (compliance with BAT-AELs for channelled dust emissions to air from grinding in compound feed manufacture)</li> </ul> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	<p>Progress reports at six monthly intervals from date of permit issue</p> <p>09/06/22</p> <p>09/12/22</p> <p>09/06/23</p>
IC2	<p>The operator shall submit, for approval by the Environment Agency, a report demonstrating compliance against BAT17 Table 4 for channelled dust emissions to air from grinding for emission points A18 and A19.</p>	4/12/2023
IC3	<p>The Operator shall submit a report, for approval in writing by the Environment Agency, demonstrating the ability to comply with BAT 5 for monitoring of particulates from the grinder emissions points (A18 and A19) in accordance with the MCERTS standard.</p> <p>The report shall include, but not be limited to, the installation of the sampling ports and platforms to enable particulate monitoring in accordance with table S3.1.</p>	4/06/2023
IC4	<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 points A1, A2, A3, A18 and A19, identifying the fractions within the PM10 and PM2.5 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>	31/12/2023 or other date as agreed in writing with the Environment Agency
IC5	<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>	09/12/2022 or other date as agreed in writing with the Environment Agency