

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/BW3303IV
The Operator is: Carrs Billington Agriculture (Operations) Limited
The Installation is: Carlisle Feed Mill
This Variation Notice number is: EPR/BW3303IV/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 04/05/2021 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 27/07/2021.

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 BAT Conclusion 2. The operator does not currently comply with the requirements of BATc 2. In relation to this/these BAT Conclusion, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Condition IC12 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
	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) which is externally accredited to ISO 14001</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	FC	<p>The operator is externally accredited to ISO14001. Relevant information is available for the sites inventory of inputs and outputs however, this is not currently included in their EMS. The ISO14001 certificate will be renewed in June 2022, the EMS is planned to be updated to ensure compliance with BATc 2.</p> <p>IC12 has been included to ensure that the EMS is updated in to ensure compliance. See Annex 3.</p>
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>	NA	<p>We are satisfied that BATc 3 is not applicable to this Installation.</p> <p>The only discharges to surface water are run off from yards and buildings – uncontaminated run off to a United Utilities Main leading to Cargo Beck. Vehicle washing, boiler blowdown and compressor condensate are discharged to United Utilities sewer via a 3 stage interceptor for treatment at Willowholme Waste Treatment Works.</p>
4	<p>Monitoring emissions to water to the required frequencies and standards.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this Installation.</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 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.		No monitoring is required at the site as the only discharges to surface water are run off from yards and buildings– uncontaminated run off to United Utilities Main leading to Cargo Beck. Vehicle washing, boiler blowdown and compressor condensate are discharged to United Utilities sewer via a 3 stage interceptor for treatment at Willowholme Waste Treatment Works.
5	<p>Monitoring channelled emissions to air to the required frequencies and standards.</p> <p>BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.</p>	CC	<p>The site undertakes MCERTS testing of air emissions for total particulates from coolers and grinders following EN 13284-1 standard.</p> <p>The requirement for annual monitoring will be included in the varied permit to ensure compliance with the BAT-AEL.</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>
6	<p>Energy Efficiency</p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	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 has an energy management policy as part of their EMS which acts as an energy efficiency plan this policy includes:</p> <ul style="list-style-type: none"> • An annual calculation of specific energy consumption in Kwh/tonne; • Comparison of the specific energy consumption to a target, which is set by their CCA agreement and requires continual improvement;

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			<ul style="list-style-type: none"> • Documented annual management review of the above; • Identified energy related aspect and impacts, risks and opportunities; which are reviewed annually; • Documented and managed improvements and objectives to improve energy efficiency - including vehicle fuel efficiency. Actions against these are reviewed routinely and the overall performance against objectives is reviewed annually; • Published plan of actions in response to ESOS report, which is reviewed regularly and formally updated annually; and • Weekly and monthly collation of energy related KPIs. <p>The site also considers energy efficiency in the design of new plant and equipment or when improving existing plant and equipment.</p>
7	<p>Water and wastewater minimisation</p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse</p> <p>(b) Optimisation of water flow</p> <p>(c) Optimisation of water nozzles and hoses</p> <p>(d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p> <p>(e) Dry cleaning</p> <p>(f) Pigging system for pipes</p> <p>(g) High-pressure cleaning</p>	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. Animal Feed Manufacture is essentially a dry process, with low water usage and limited potential for water saving and application of BAT techniques.</p> <p>The site utilises dry cleaning for process area cleaning.</p> <p>Very little process effluent is produced and the operator takes all reasonable steps to reduce water consumption and the volume of waste water produced.</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) 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		
8	<p>Prevent or reduce the use of harmful substances</p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <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>Procedure E15 within the operators EMS describes the control and storage of substances. The operator selects substances with lower environmental and other risks are selected where practicable.</p> <p>There is general compliance with BAT 8 c and d. Feed process equipment is designed to not require wet cleaning. The site uses vacuum cleaning or sweeping in process areas. Internal parts of equipment can be physically cleaned where necessary but there is no need to clean using water or to physically clean between batches.</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>	NA	<p>We are satisfied that BATc 9 is not applicable to this Installation as there is no refrigerants used on 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
10	<p>Resource efficiency In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <ul style="list-style-type: none"> (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading 	CC	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>This is a closed manufacture system with no process losses, fines are reprocessed back into same batch or bulked for use as an ingredient in subsequent batches. Resource efficiency is high for this activity with losses less than 0.05% of production.</p>
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>	NA	<p>We are satisfied that BATc 11 is not applicable to this Installation.</p> <p>The discharge volumes from this installation are low, the minimal process effluent produced is discharged to sewer, additional buffer storage capacity is not applicable.</p> <p>However, there are systems and controls in place to ensure that any spillages are managed to ensure there is no surface water contamination. Including spill kits and drain mats located around the site that are routinely checked to ensure the correct contents are present and in satisfactory condition. There is an interceptor for primary discharge from the vehicle wash and drainage from the refuelling area and this could temporarily contain a fuel spill.</p>
12	<p>Emissions to water – treatment In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. Preliminary, primary and general treatment</p>	NA	<p>We are satisfied that BATc 12 is not applicable to this Installation. There are no direct discharges of process effluent arising from this site. Effluent volumes produced are low and do not warrant additional treatment.</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) 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		
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: - a protocol containing actions and timelines;	NA	We are satisfied that BATc 13 is not applicable to this Installation as it 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. There has been no substantiated noise complaints within the last 10 years. There is no existing permit requirement for a noise management plan above the standard noise conditions and we are

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	<ul style="list-style-type: none"> - 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 contributions of the sources and to implement prevention and/or reduction measures. 		satisfied a noise management plan is not required at this stage for the installation.
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> <ul style="list-style-type: none"> (a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement 	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>Operator uses a combination of relevant procedures:</p> <ul style="list-style-type: none"> - Location of buildings in industrial area away from sensitive receptors. - Location of noise emitting equipment within buildings with restricted apertures to environment. Doors kept closed when not in use. - Use of acoustic attenuation around noisy equipment - e.g. acoustically shielded room around the new grinder on site. - Consideration of equipment with lower noise emissions where this is available. - Use of noise control equipment where this is feasible - e.g. on new grinder exhaust stack. - Measurement of environmental noise emissions following major change to site to assess impact. Note very low noise measurements attained at the site boundaries.
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</p>	NA	We are satisfied that BATc 15 is not applicable to this Installation as no odour nuisance at sensitive receptors is expected and/or has been substantiated 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
	<p>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. 		
ANIMAL FEED BAT CONCLUSIONS (BAT 16-17)			
16	<p>Energy efficiency – Green fodder only</p> <p>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.</p> <ul style="list-style-type: none"> (a) Use of predried fodder (b) Recycling of waste gas from the dryer (c) Use of waste heat for pre-drying <p>Applicable in addition to BAT6</p>	NA	We are satisfied that BATc 16 is not applicable to this Installation.
17	<p>Emissions to air – particulates</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>	CC	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.

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
	Parameter	Specific process	Unit	BAT-AEL (average over the sampling period)		
				New plants	Existing plants	<p>Pellet Coolers The existing emission limit value (ELV) for the emission points A1 & A2 was 50mg/Nm³, because these are existing plants we believe it is appropriate to set the new ELV at the top of the range. A new ELV of 20mg/Nm³ will be included in the varied permit to ensure compliance with the BAT-AEL.</p> <p>Monitoring data suggests the operator can comply with the revised ELV of 20 mg/Nm³ as the operator has had no exceedances of the new limit since 2011. 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>Grinder The existing emission limit value (ELV) for the emission points A12 was 50mg/Nm³ for particulate emissions, because this is an existing plant we believe it is appropriate to set the new ELV at the top of the range. A new ELV of 10mg/Nm³ will be included in the varied permit to ensure compliance with the BAT-AEL.</p> <p>The operator has had no exceedances since monitoring started in 2019. Monitoring data suggests the operator can comply with the revised ELV of 10 mg/Nm³ no, therefore we are including this limit within the permit from date of issue and are choosing to not future date this BAT AEL.</p>
	Dust	Grinding	mg/Nm ³	<2-5	<2-10	
		Pellet cooling		<2-20		
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 Animal Feed</p> <table border="1" data-bbox="277 451 1061 687"> <thead> <tr> <th>Product</th> <th>Unit</th> <th>Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td>Compound food</td> <td rowspan="3">MWh/tonne of products</td> <td>0.01-0.10 ⁽¹⁾⁽²⁾⁽³⁾</td> </tr> <tr> <td>Dry pet food</td> <td>0.39-0.50</td> </tr> <tr> <td>Wet pet food</td> <td>0.33-0.85</td> </tr> </tbody> </table> <p>(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 teat treatment is used for Salmonella decontamination.</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	Wet pet food	0.33-0.85	CC	<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. The compound food figure of 0.01-0.10 is appropriate for this installation. The sites energy consumption for 2020 was 0.061 MWh/t, which is well within the target, reflecting the good energy management in place at this installation.</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										
Wet pet food	0.33-0.85												
EPL	<p>Environmental performance level – Waste water discharge for Animal Feed</p> <table border="1" data-bbox="277 963 1061 1110"> <thead> <tr> <th>Product</th> <th>Unit</th> <th>Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td>Wet pet food</td> <td>m3/tonne of products</td> <td>1.3-2.4</td> </tr> </tbody> </table>	Product	Unit	Specific waste water discharge (yearly average)	Wet pet food	m3/tonne of products	1.3-2.4	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 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. 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.

Table S3.1 has been updated to merge the following emission points A5 – A7 as these are all raw material and fuel tank vents; A9 and A10 have been merged as these are both silo exhausts via bag filters. Emission points B1 – B8 have been added as these were not previously included in the 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(s) below:

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	1.44 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.	Dual fuel: - Natural Gas; and - Gas Oil (fuel oil is used as a replacement fuel in the event of a disruption in gas supply)
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.	August 2014

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

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

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

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 against BAT-AELs we will implement the relevant emission limit value (ELV) from the date of permit issue. This is relevant for emission points A1, A2 and A12 against BAT 17 for particulate emissions from the coolers and grinder.

We have added an improvement condition (IC10) 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 (PM₁₀ and PM_{2.5}) emissions and increase our understanding of potential health effects.

Where BAT-AELS may apply to multiple emission points eg 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 Application Site Report AN0550001 dated March 2005 during the original application received on 24/04/2005. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

The Operator submitted a risk assessment which includes a description of the condition of the site and a consideration of the possibility of soil and groundwater contamination at the installation. No site baseline condition was included in the submission.

The Operator has accepted ‘zero contamination’ beneath the site. This means that when the Operator applies to surrender the Permit, any contamination by substances used at, produced or released from the facility would be considered to have resulted from the operation of the installation. This is in accordance with the Environment Agency Guidance H5 – Site Condition Report.

Hazardous Substances

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

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

The stage 1 assessment identified the hazardous substances used / stored on site. The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

The outcomes of the three stage assessment identified that pollution of soil and/or ground water to be unlikely.

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.

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).

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Reason for inclusion
IC1	The Operator shall carry out an assessment of the options for segregating and disposing of process wastes, having regard to Section 2.6 of Agency Guidance Note S6.10. A written report summarising the findings shall be submitted to the Agency. Where options are identified and improvements can be made, provide an implementation plan with a timescale agreed with the Agency.
IC2	The Operator shall carry out monitoring to characterise the discharge from the boiler blowdown which is emitted via W2. The Operator shall carry out an impact assessment having regard to Agency Guidance Note H1 or equivalent methodology on this emission. The Operator shall submit a written summary of the monitoring method used, the monitoring results and the impact assessment.
IC3	The Operator shall carry out a programme of representative monitoring of particulates from emission points A3, A9 and A10, having regard to Section 2.10 of the Agency Guidance Note IPPC S6.10 and Agency Technical Guidance Notes M1 and M2. A written report shall be submitted to the Agency detailing the monitoring undertaken and the results obtained.
IC4	The Operator shall review the monitoring systems, alarms and procedures for the detection of any abnormal operation of the abatement systems associated with release points A3, A9 and A10. A written report shall be submitted to the Environment Agency for approval, which shall include any necessary improvements and timescales.
IC5	The Operator shall review the provision of MCERTS accreditation for the monitoring equipment, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1. Where suitable standards are available at the time of the review, propose a timetable for achieving this standard for any elements that are not MCERTS certified.
IC6	The Operator shall redirect vehicle washdown effluent to sewer and install an interceptor into the foul water drains. A written report summarising the changes made and confirming that a consent to discharge has been obtained from the Sewerage Undertaker shall be submitted to the Agency.

IC7	<p>The Operator shall investigate options for the improvement of secondary containment for the storage of bulk liquids, having regard to section 2.2.5 of Sector Guidance Note IPPC S6.10. Particular attention shall be paid to the storage of detergents used for vehicle washing and water treatment chemicals.</p> <p>The Operator shall submit a written report to the Agency summarising the review and identifying the improvement options. The Operator shall agree a programme of work with the Agency to implement the improvement options and complete the programme of work.</p>
IC8	<p>The Operator shall develop a written Site Closure Plan having regard to Section 2.11 of Agency Guidance Note S6.10. Once the plan has been prepared, the Operator shall submit a written summary for the plan to the Agency.</p>
IC9	<p>The Operator shall develop a plan for the containment of fire waters, having regard to Section 2.8 of the Agency Sector Guidance Note IPPC S6.10 and Pollution Prevention Guidance Note PPG 18. Once the plan has been prepared, the Operator shall submit a written summary of the plan to the Agency.</p>

Improvement programme requirements V003		
Reference	Reason for inclusion	Justification of deadline
IC10	<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 and A12, 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>	<p>31/03/2023 or other date as agreed in writing with the Environment Agency</p>
IC11	<p>The operator shall review and update the H1 risk assessment for particulate emissions to air at the capacity levels stated within table S1.1 of this permit. The H1 shall be submitted to the Environment Agency for review.</p>	<p>31/03/2023 or other date as agreed in writing with the Environment Agency</p>
IC12	<p>The Operator shall submit the updated sections of the Environment Management System (EMS), for approval in writing by the Environment Agency, demonstrating the ability to comply with BAT 2 for EMS inventory of inputs and outputs.</p>	<p>04/12/2023</p>