

# **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/BT3714IY  
The Operator is:                         Nestle Purina UK Manufacturing Operations Limited  
The Installation is:                     Southbrink Factory  
This Variation Notice number is:   EPR/BT3714IY/V013

### **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 30/07/2021 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 30/11/2021.

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 9. The operator does not currently comply with the requirements of BATc 9. In relation to this 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.

## 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 requests on 25/01/2022 and 08/03/2023. The request for further information dated 25/01/2022 requested further information on BATc 1, 6, 8, 9, 11 & 14. The request for further information dated 08/03/2023 requested clarity on the following BATc 9 and the Environmental Performance Level (EPL) for water usage. A copy of each further information request was placed on our public register.

# **3 The legal framework**

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

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

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

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

## Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

**NA – Not Applicable**

**CC – Currently Compliant**

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

**NC – Not Compliant**

BATC No	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
<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>	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 a EMS externally accredited to the ISO14001 standard.</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>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The operator has an externally accredited EMS to the ISO14001 standard. The Operator undertakes monitoring of the waste water stream prior to discharge, monitoring of the waste gas streams and monitoring of the energy usage on site, raw material usage and residues generated.</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>	CC	<p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p> <p>The process effluent is treated on site prior to discharge to the Anglian Water foul sewer. The Operator undertakes continuous monitoring of the flow and consent parameters (COD, SS, sulphate, sulphides and fats, oils &amp; grease).</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 [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>All process effluent is treated by the onsite effluent treatment plant prior to discharge to the foul sewer for further treatment. The effluent is continuously monitored to ensure the limits of the trade effluent consent are achieved.</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
			We are therefore satisfied that BATc 4 is not applicable for this site.
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>	NA	<p>No drying is undertaken at the site, as such the relevant BAT monitoring requirements for the animal feed sector do not apply.</p> <p>We are therefore satisfied that BATc 5 is not applicable for this site</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>	CC	<p>The operator has provided information to support part 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 site is externally accredited to ISO 50001 standard. The site under takes the following energy efficiency techniques:</p> <ul style="list-style-type: none"> <li>• The main boilers are fitted with economisers which are software controlled</li> <li>• The site has an ongoing improvement plan to replace and lighting with LED lights</li> <li>• Ongoing collaboration with partner sites across Europe, sharing best techniques</li> <li>• Implementation of a preventative planned maintenance schedule</li> </ul>
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 for detail of each technique, refer BAT 7 table in BATc.</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            Techniques related to cleaning operations:            (e) Dry cleaning</p>	CC	<p>The operator has provided information to support part 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 site has implemented a number of water minimisation techniques across the site including:</p> <ul style="list-style-type: none"> <li>• Re-use of water in the retorts (vessels) depending on the biological loading</li> </ul>

BATC No	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	(f) 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		<ul style="list-style-type: none"> <li>• Reverse osmosis water from the boiler plants is used within the ETP for clean downs and to clean bins on site</li> <li>• Use of water in the product recipes is controlled through onsite software.</li> <li>• All hoses on site have nozzles which allow them to be turned off</li> <li>• Water streams are segregated on site, with uncontaminated water discharged to the nearby water course (culverted water course - Middle Level Drainage system), domestic effluent discharged to the sewer, and the process effluent treated on site before discharge</li> <li>• Dry cleaning is carried out on the factory floors to collect any material without the need for water use</li> <li>• Other cleaning methods include the use of pigging systems to clean pipework between product change over, high pressure cleaning for equipment cleaning, CIP process are used where suitable, foam cleaning for protein removal and a 'clean as you go' process is in place.</li> </ul>
8	<b>Prevent or reduce the use of harmful substances</b> 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. (a) Proper selection of cleaning chemicals and/or disinfectants (b) Reuse of cleaning chemicals in cleaning-in-place (CIP) (c) Dry cleaning (d) Optimised design and construction of equipment and process areas	CC	<p>The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The Operator uses chemicals and disinfectants suitable for the processes carried out, effluent is treated prior to discharge to the sewer. The Operator undertakes a range of techniques to minimise the use of chemicals. Methods are reviewed frequently.</p>
9	<b>Refrigerants</b>	FC	The operator has provided information to support compliance with BATc 9. We have assessed the

BATC No	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	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>information provided and we are not satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The Operator maintains an up to date FGAS register detailing the location, make, model and type of refrigerant used in all refrigeration units across the site.</p> <p>The site uses refrigerants including R410a, R507 and R407c across all production areas, these refrigerants aren't considered to have a low Global Warming Potential (GWP). IC 9 has been included to replace refrigerants with the lowest practicable GWP gases based on an action log identifying the end of life equipment using high GWP gases.</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> <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 uses a number of techniques to increase resource efficiency on site, wet wastes are sent off site as feedstock for anaerobic digestion. Other wastes are segregated on site.</p>
11	<p><b>Waste water buffer storage</b></p> <p>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>Uncontaminated surface water is discharged to the local water course, subsurface interceptors are located in the car park.</p> <p>The site has a buffer storage tank with a maximum capacity of 250m<sup>3</sup>, the tank typically has a 200m<sup>3</sup></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
			capacity. To prevent spills the site stores all chemicals and lubricants in bunded areas. IBCs and other containers are stored within bunds with a 110% capacity. Bunds are expected monthly for cracks and deterioration amongst other checks. Interceptors are located in the carparks, and a number of spill kits are located around the site to deal with spills should they occur.
12	<p><b>Emissions to water – treatment</b></p> <p>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> <p>(a) Equalisation</p> <p>(b) Neutralisation</p> <p>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</p> <p>(e) Nitrification and/or denitrification</p> <p>(f) Partial nitrification - anaerobic ammonium oxidation</p> <p>Phosphorus recovery and/or removal</p> <p>(g) Phosphorus recovery as struvite</p> <p>(h) Precipitation</p> <p>(i) Enhanced biological phosphorus removal</p> <p>Final solids removal</p> <p>(j) Coagulation and flocculation</p> <p>(k) Sedimentation</p> <p>(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)</p> <p>(m) Flotation</p>		<p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The Operator treats all process effluent on site within the permitted effluent treatment plant prior to discharging the treated effluent to the foul sewer under agreement from the sewage undertaker. The effluent treatment plant incorporates the following processes, the removal of gross solids, the balancing of effluent, the addition of coagulant and flocculant, the use of a DAF plant, prior to discharging to the foul sewer. The sludge from the DAF plant is removed from site for treatment and disposal.</p>
12	<p><b>Emissions to water – treatment</b></p> <p><b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b></p>	NA	The site discharges treated effluent to the foul sewer, there are no direct discharges to the water course as such, the relevant BAT-AELs for the animal feed sector do not apply.

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										
	<table border="1" data-bbox="282 300 1211 499"> <thead> <tr> <th data-bbox="282 300 770 339">Parameter</th> <th data-bbox="770 300 1211 339">BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="282 339 770 379">Chemical oxygen demand (COD) (°) (°)</td> <td data-bbox="770 339 1211 379">25-100 mg/l (°)</td> </tr> <tr> <td data-bbox="282 379 770 419">Total suspended solids (TSS)</td> <td data-bbox="770 379 1211 419">4-50 mg/l (°)</td> </tr> <tr> <td data-bbox="282 419 770 459">Total nitrogen (TN)</td> <td data-bbox="770 419 1211 459">2-20 mg/l (°) (°)</td> </tr> <tr> <td data-bbox="282 459 770 499">Total phosphorus (TP)</td> <td data-bbox="770 459 1211 499">0,2-2 mg/l (°)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (°) (°) (daily average)	Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)	Total suspended solids (TSS)	4-50 mg/l (°)	Total nitrogen (TN)	2-20 mg/l (°) (°)	Total phosphorus (TP)	0,2-2 mg/l (°)		We are therefore satisfied that BAT AELs associated with BATc 12 is not applicable for this site.
Parameter	BAT-AEL (°) (°) (daily average)												
Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)												
Total suspended solids (TSS)	4-50 mg/l (°)												
Total nitrogen (TN)	2-20 mg/l (°) (°)												
Total phosphorus (TP)	0,2-2 mg/l (°)												
13	<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> <p>Note: BAT13 is only applicable where a noise nuisance at sensitive receptors is expected and/or has been substantiated.</p>	<b>NA</b>	<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> <p>Despite this, the Operator provided a noise abatement plan in response to the Regulation 61 Notice. However, based on the above, we have not reviewed or approved this plan. We deem it to form part of the EMS.</p> <p>We are therefore satisfied that BATc 13 is not applicable 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> <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>NA</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>The Operator has mitigated noise emissions from site by implementing the following measures</p> <ul style="list-style-type: none"> <li>• Use of baffle fences, abatement barriers</li> <li>• Positioning of buildings to act as a noise screen</li> <li>• Use of earth mounds</li> <li>• Restrictions on deliveries to site</li> </ul>										

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"> <li>Removal of noisy equipment</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> <p>Note: BAT 15 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p>	CC	<p>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 complaints from the site therefore an OMP is not a requirement for this site.</p> <p>Despite this, the Operator provided an odour abatement plan in response to the Regulation 61 Notice. However, based on the above, we have not reviewed or approved this plan. We deem it to form part of the EMS.</p> <p>We are therefore satisfied that BATc 15 is not applicable for this site..</p>
<b>PET FOOD BAT CONCLUSIONS (BAT 16-17)</b>			
16	<p><b>Energy efficiency – Green fodder only</b></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"> <li>(a) Use of predried fodder</li> <li>(b) Recycling of waste gas from the dryer</li> <li>(c) Use of waste heat for pre-drying</li> </ul> <p>Applicable in addition to BAT6</p>	N/A	<p>The site does not process green fodder. We are therefore satisfied that BATc 16 is not applicable for this site.</p>
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 compound animal feed BAT-AELs (10mg/m<sup>3</sup> for</p>	NA	<p>No drying processes are undertaken on site as such the relevant BAT requirements for the abatement of emissions to air from drying processes do not apply.</p>

<b>BATC No</b>	<b>Summary of BAT Conclusion requirement for Food, Drink and Milk Industries</b>	<b>Status NA/ CC / FC / NC</b>	<b>Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement</b>										
	grinding and/or 20mg/m <sup>3</sup> for cooling). However, as it is not a BAT-AEL, no derogation is required if the operator cannot achieve this. We will ensure they have the correct abatement and set an appropriate ELV with an IC.		We are therefore satisfied that techniques associated with BATc 17 are not applicable for this site.										
	<b>Animal Feed Environmental Performance Levels</b>												
<b>EPL</b>	<p><b>Environmental Performance Level – Energy Consumption for Pet Food</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Product</th> <th style="width: 30%;">Unit</th> <th style="width: 40%;">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td>Compound food</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">MWh/tonne of products</td> <td style="text-align: center;">0.01-0.10 <sup>(1)(2)(3)</sup></td> </tr> <tr> <td>Dry pet food</td> <td style="text-align: center;">0.39-0.50</td> </tr> <tr> <td>Wet pet food</td> <td style="text-align: center;">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 heat treatment is used for Salmonella decontamination.</p>	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	<b>CC</b>	<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 specific energy consumption range for wet pet food manufacturing is 0.33-0.85 MWh/tonne of product produced. The operator reports that the current energy consumption for the site is 0.76 MWh/tonne, which is within the EPL range.</p>
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											

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><b>Environmental performance level – Waste water discharge for Pet Food</b></p> <table border="1" data-bbox="286 277 1189 424"> <thead> <tr> <th data-bbox="286 277 582 379">Product</th> <th data-bbox="582 277 898 379">Unit</th> <th data-bbox="898 277 1189 379">Specific waste water discharge (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="286 379 582 424">Wet pet food</td> <td data-bbox="582 379 898 424">m3/tonne of products</td> <td data-bbox="898 379 1189 424">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	CC	<p>The operator has provided information to support compliance with BATc EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc EPL.</p> <p>The specific waste water discharge range is 1.3-2.4m<sup>3</sup>/ tonne of product produced for wet pet food manufacturing. In the Reg 61 response the operator reported that the current specific waste water discharge is 2.57m<sup>3</sup> per tonne of product produced. However, following the RFI response dated 28/04/2023 the Operator has reported that the current specific waste water discharge figure is 2.38m<sup>3</sup>/tonne of product. The Operator has a number of projects in place to help reduce the volume of waste water.</p> <p>Given the EPL for waste water is now within the given range and the Operator has an number of ongoing projects to reduce the EPL for waste water discharge we are satisfied that the operator has demonstrated compliance with BATc EPL.</p>
	Product	Unit	Specific waste water discharge (yearly average)						
Wet pet food	m3/tonne of products	1.3-2.4							

## **Annex 2: Review and assessment of changes that are not part of the BAT Conclusions derived permit review**

### **Updating permit during permit review consolidation**

- Activity name
- Updated introductory note
- 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.

### **Production/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. Whilst the capacity of the site has increased since the site was originally permitted we are satisfied that the associated risks have not changed, due to the effluent treatment plant capacity being assessed when originally permitted.

### **Emissions to Air**

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

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

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

### **Existing Medium Combustion Plant (1MW-50MW)**

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

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

### **Boilers**

	Boiler 1	Boiler 2	Boiler 3	Boiler 4
1. Rated thermal input (MW) of the medium combustion plant.	5.6	5.6	5.6	8.7
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler	Boiler	Boiler	Boiler
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural Gas	Natural Gas	Natural Gas	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.	August 1979	1990	August 1979	1990

We have reviewed the information provided and we consider that the boilers qualify as “existing” medium combustion plant. We have retained the previous emission limit values for the four boilers (140mg/m<sup>3</sup> for Oxides of Nitrogen) as these present tighter limits than those stated with the MCPD and have previously been included to protect the receiving environment. We have added the monitoring of carbon monoxide in Table S3.1 as per the MCPD. The monitoring frequency for the boilers remains annually.

Previous variations made reference to the use of standby fuel at the site with Table S2.1 containing limits on the sulphur content. The Operator has advised that the standby fuel was previously gas oil, however the site never operated on this fuel type. The boilers have since been altered so they can no longer operate on gas oil, as such the reference to standby fuel has been removed from the variation and the limits previously listed in Table S2.1 have been removed.

## **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 [First Phase Reporting of the Site Protection and Monitoring Programme for the Wisbech Installation, Nestle Purina Petcare Dated 20/01/2006] during the original application received on 27/08/2004. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

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

## **Hazardous Substances**

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

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

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

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

The operator is required to submit a relevant hazardous substances monitoring plan for review to the Environment Agency via improvement condition (IC13).

## **Climate Change Adaptation**

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

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

The operator has not submitted a climate change adaptation plan, which considers, as a minimum the impact of severe weather on the operations within the installation. We have included an improvement condition into the permit (IC14) to request a climate change adaptation plan is submitted by the operator for approval by the Environment Agency.

## **Containment**

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

The Operator provided details of all tanks;

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

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

We reviewed the information provided by the operator. We are satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

### Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

<b>Superseded Improvement Conditions – Removed from permit as marked as “complete”</b>	
<b>Reference</b>	<b>Improvement Condition</b>
IC1	The operator shall, to the satisfaction of the Agency, provide a written report detailing the proposals to minimise fugitive odorous emissions. The report should review general and specific air collection and handling to reduce the emission of odorous air and the impact of the emissions of odorous air caused by general ventilation. It should present an explanation of the techniques to be used and the timescales for implementation. The report shall also provide justification of the proposed techniques and timescales, including an explanation of the priorities for dealing with fugitive emissions.
IC2	The Odour Management Plan Version R1 (2008) shall be implemented
IC3	The operator shall undertake a review of the odour abatement biofilters serving the Alufoil building to assess their ability to treat the increased throughput. If it is found that the number of biofilter pods is insufficient to fully treat the increased airflow, the operator shall submit, in writing, details of the improvements required to address this, including timescales for implementation of the proposals.
IC4	The operator shall, to the satisfaction of the Agency, update the accident management procedures for the installation. In particular, procedures for blocking off the drainage system in the event of a spill should be reviewed. The plan should detail the training and testing regime. A report shall be provided detailing the improvements, and should include a copy of the latest Accident Management Plan.
IC5	The operator shall undertake a review of the H1 Part 2 database and the EP OPRA spreadsheet for the whole installation. A summary of the changes shall be submitted to the Agency.
IC6	The operator shall undertake a review of the pouch filling lines in the existing Alupouch production unit to explore the feasibility of reducing the wastage of the alufoil rolls used for the production of pouches. Details of the study, including recommendations, shall be submitted in writing to the Agency.
IC7	The operator shall submit a written report detailing how the monitoring specified in Table 2.10.1 shall be undertaken, for the agreement of the Agency. Once agreed, the monitoring techniques shall be implemented.
IC8	The operator shall undertake a review of feasibility of insulating the retorts in the existing Alupouch production unit in order to reduce energy usage. Details of the study, including recommendations, shall be submitted in writing to the Agency.
IC9	The operator shall update the H1 Environmental Risk Assessment for the site following 6 months normal operation of the Pouch4 P1 production line.
IC10	The operator shall undertake monitoring of odour emissions for the Pouch4 P1 Grill plate process line following 6 months of normal operation of the line. Should ambient air monitoring show that process odour emissions have increased significantly since installation of the line, the operator shall review the need for installation of a self-contained unit around Pouch4 P1 Grill plate system. A report detailing the findings of the monitoring and including any

	recommendations and timescales for improvement shall be submitted in writing to the Environment Agency.
IC11	The operator shall undertake an energy audit of the Pouch4 P1 line after twelve months of normal operation to provide more accurate electrical and gas energy use. A report detailing the findings of the audit and any recommendations and timescales for improvement shall be submitted in writing to the Environment Agency.

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>
IC12	<p>The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs.</p> <p>To demonstrate compliance against BAT 9, the operator shall develop a replacement plan for the refrigerant system(s) at the installation. This shall be incorporated within the existing environmental management system by the specified date.</p> <p>The plan should include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Where practicable, retro filling systems containing high GWP refrigerants with lower GWP alternatives as soon as possible.</li> <li>• An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.</li> </ul>	04/12/2023
IC13	<p>The operator shall produce a monitoring plan detailing how the management of relevant hazardous substances which did not screen out as low risk, based on the RHS baseline assessment, will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>	20/06/2024 or other date as agreed in writing with the Environment Agency
IC14	<p>The operator shall produce a climate change adaptation plan. The approved plan will form part of the EMS. The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• Details of how the installation has or could be affected by severe weather;</li> <li>• The scale of the impact of severe weather on the operations within the installation;</li> <li>• An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.</li> </ul>	20/06/2024 or other date as agreed in writing with the Environment Agency

	The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	
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