

# **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/WP3437QD  
The Operator is:                         Mars Petcare UK  
The Installation is:                     Castle Petcare  
This Variation Notice number is:   EPR/WP3437QD/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 4<sup>th</sup> December 2019 in the Official Journal of the European Union. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

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

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

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

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

## **How this document is structured**

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

# 1 Our decision

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

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

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

## 2 How we reached our decision

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

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 31/01/2022 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

The Notice required that where the revised standards are not currently met, the operator should provide information that:

- describes the techniques that will be implemented before 4 December 2023, which will then ensure that operations meet the revised standards, or
- justifies why standards will not be met by 4 December 2023, and confirmation of the date when the operation of those processes will cease within the Installation or an explanation of why the revised BAT standards are not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised BAT standards described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT-AEL) described in the BAT Conclusions Document, the Regulation 61 Notice required that the Operator make a formal request for derogation from compliance with that BAT-AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request.

The Regulation 61 Notice response from the Operator was received on 31/05/2022. Because some of the files submitted could not be accessed, we asked the Operator on 27/11/2023 to resubmit them. We received the information via six emails on 05/12/2023.

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 6 and 7. The operator currently hasn't demonstrated compliance with the requirements of BATc 9. In relation to these BAT Conclusions, we do not fully agree with the Operator in respect of their current stated capability as recorded in their response to the Regulation 61 Notice. We have therefore included Improvement Conditions IC26 and IC27 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered within 3 months of the variation being issued.

## 2.3 Requests for further information during determination

Although we were able to consider the Regulation 61 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 15/12/2023 concerning BATcs 1, 5, 6, 7, 11, 12, EPLs, 17, MCPs, air emission points, containment, updated site plan. A copy of the further information request was placed on our public register.

# **3 The legal framework**

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

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

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

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

## Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

**NA – Not Applicable**

**CC – Currently Compliant**

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

**NC – Not Compliant**

| BATC No                                   | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries   | Status<br>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 submitted a copy of the EMS which contains the following chapters:</p> <ul style="list-style-type: none"> <li>• Scope, organisational context, monitoring and compliance</li> <li>• Leadership, environmental policy, and HSE</li> <li>• Planning, risks, environmental aspects, and objectives</li> <li>• Support, competencies, communications, and documents control</li> <li>• Operations planning, control, and emergency</li> <li>• Performance evaluation, auditing, and review</li> <li>• Improvement opportunities, non-conformity, and continuous improvement.</li> </ul> <p>The EMS does not contain any reference to sectoral benchmarking but the Operator confirmed this is observed and applied.</p> <p>Although IC11 asking for progress made in achieving ISO14001 accreditation has been marked as completed, the operator declared that they do not have this accreditation.</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 declared the following:</p> <ul style="list-style-type: none"> <li>• Regularly reviewing of the raw materials usage as part of the EMS</li> </ul>   |

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|---------|---|----------------------------|--|
|         |   |                            | <ul style="list-style-type: none"> <li>• Use of the process flow diagram to understand waste generation and sources</li> <li>• Use of water mass balance to identify efficiency opportunities</li> <li>• Monitoring the wastewater characteristics</li> <li>• Monitoring of waste gas characteristics</li> <li>• Continuous monitoring and daily review of energy consumption</li> </ul>   |
| 3       | <p><b>Monitoring key process parameters at key locations for emissions to water.</b></p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p> | 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 Operator declared they are monitoring wastewater volume discharged, and receiving periodic updates from the sewage undertaker in respect to biochemical oxygen demand (BOD), ammonia as nitrogen (N), pH, chemical oxygen demand (COD), suspended solids (SS), chloride (Cl<sup>-</sup>), and fat, oil, and grease (FOG).</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>We are satisfied that BATc 4 is not applicable to this site.</p> <p>This BATc is applicable to installations discharging process effluent to controlled waters. This site discharges process effluent to sewer under consent from Wessex Water therefore, BATc 4 is not applicable.</p>   |
| 5       | <p><b>Monitoring channelled emissions to air to the required frequencies and standards.</b></p> <p>BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.</p>   | CC                         | <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>  |

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|---------|--|----------------------------|---|
|         |  |                            | The Operator declared that monitoring of dust emissions is carried out annually for air emission point A3 (Pit fan extractor) and A4 (grinder) at EN13284 standard by an MCERTS accredited 3 <sup>rd</sup> party.   |
| 6       | <p><b>Energy Efficiency</b></p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>   | 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 declared that they are compliant with this BATc.</p> <p><b>The Operator provided a series of documents, namely SIG Comparison, SIG by Design, and SIG Roadmap which detail some energy parameters but it is unclear what these documents try to convey. The Operator was asked in the Reg.61 Notice and RFI email to specifically state how compliance with BATc 6(a) and (b) is achieved, and we were referred to the above documents.</b></p> <p>Improvement condition IC26 has been included in the permit to demonstrate compliance was achieved on or before 04/12/2023 (see Annex 3).</p> |
| 7       | <p><b>Water and wastewater minimisation</b></p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse</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> | CC                         | <p>The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The Operator declared that they are compliant with BATc 7.</p> <p><b>However, the Operator was asked in the Reg.61 Notice and RFI letter what water and wastewater minimisation techniques are currently in use at this installation. The Reg.61 Response does not contain a clear response in support of this BATc but, instead, stated that</b></p>  |



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|---------|---|----------------------------|--|
|         | (g) High-pressure cleaning<br>(h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP)<br>(i) Low-pressure foam and/or gel cleaning<br>(j) Optimised design and construction of equipment and process areas<br>(k) Cleaning of equipment as soon as possible  |                            | <p><b>some projects are in development. In respect to the RFI letter, there was no answer provided to support the compliance statement with this BATc. It is unclear what techniques are used at this installation</b></p> <p>Improvement condition IC26 has been included in the permit to demonstrate compliance was achieved on or before 04/12/2023 (see Annex 3).</p>   |
| 8       | <p><b>Prevent or reduce the use of harmful substances</b></p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants<br/>           (b) Reuse of cleaning chemicals in cleaning-in-place (CIP)<br/>           (c) Dry cleaning<br/>           (d) Optimised design and construction of equipment and process areas</p> | CC                         | <p>The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.</p> <p>The Operator declared that they are continuously working with the cleaning products supplier to reduce the number and quantity of chemicals used. In addition, dry cleaning is preponderantly used in the installation.</p>   |
| 9       | <p><b>Refrigerants</b></p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>   | CC                         | <p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The Operator declared that a mix of low and high global warming potential (GWP) refrigeration gases are used in this installation, e.g., R410A and R32, and that actions are being currently taken and planned for the phasing out of high GWP gases.</p> <p>However, this plan has not been submitted therefore, Improvement Condition IC27 has been included to demonstrate that compliance was achieved on or before 04/12/2023.</p> |

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|---------|--|----------------------------|--|
| 10      | <p><b>Resource efficiency</b><br/>           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>   | CC                         | <p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The Operator declared that they use:</p> <ul style="list-style-type: none"> <li>• Off-site anaerobic digestion (AD) of waste product</li> <li>• Separation of residue</li> <li>• Off-site energy recovery from waste not suitable for AD</li> </ul>   |
| 11      | <p><b>Waste water buffer storage</b><br/>           In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>   | CC                         | <p>The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 11.</p> <p>The Operator declared that there is a buffer capacity of 55 m<sup>3</sup> in the effluent treatment plant (ETP), and an attenuation pond equipped with valves that are manually actioned to prevent environmental contamination with pollutants from entering the attenuation pond.</p> <p>In addition, there are two oil separators into attenuation pond for surface water.</p> |
| 12      | <p><b>Emissions to water – treatment</b><br/>           In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <ul style="list-style-type: none"> <li>(a) Equalisation</li> <li>(b) Neutralisation</li> <li>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</li> </ul> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <ul style="list-style-type: none"> <li>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</li> </ul> | CC                         | <p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The Operator declared they are using:</p> <ul style="list-style-type: none"> <li>• Neutralisation</li> <li>• Chemical dosing</li> <li>• Dissolved air flotation (DAF)</li> <li>• Coagulation and flocculation</li> </ul>  |

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|--------------------------------------|---|----------------------------|---|--------------------------------------|-----------------|------------------------------|---------------|---------------------|-------------------|-----------------------|----------------|-----------|--|
|                                      | (e) Nitrification and/or denitrification<br>(f) Partial nitrification - anaerobic ammonium oxidation<br>Phosphorus recovery and/or removal<br>(g) Phosphorus recovery as struvite<br>(h) Precipitation<br>(i) Enhanced biological phosphorus removal<br>Final solids removal<br>(j) Coagulation and flocculation<br>(k) Sedimentation<br>(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)<br>(m) Flotation   |                            | Resulted sludge from the ETP is tankered off-site to be processed in AD by a 3 <sup>rd</sup> party.   |                                      |                 |                              |               |                     |                   |                       |                |           |  |
| 12                                   | <b>Emissions to water – treatment</b><br><b>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</b><br><br><table border="1" data-bbox="280 842 1211 1043"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (°) (°)</td> <td>25-100 mg/l (°)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (°)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (°) (°)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (°)</td> </tr> </tbody> </table> | Parameter                  | BAT-AEL (°) (°) (daily average)   | Chemical oxygen demand (COD) (°) (°) | 25-100 mg/l (°) | Total suspended solids (TSS) | 4-50 mg/l (°) | Total nitrogen (TN) | 2-20 mg/l (°) (°) | Total phosphorus (TP) | 0,2-2 mg/l (°) | <b>NA</b> | We are satisfied that BAT-AELs are not applicable to this installation.<br><br>The limits introduced by this BAT are applicable to discharges of process effluent to controlled waters, and this site discharges treated effluent to sewer only, under a discharge consent from Wessex Water Services Limited for further processing.<br><br>The only discharge to River Brue consists of uncontaminated surface water discharged via interceptor therefore, the BAT-AELs are not applicable to 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                                   | <b>Noise management plan</b><br>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:<br><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> </ul>   | <b>NA</b>                  | We are satisfied that BATc 13 is not applicable to this Installation.<br><br>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. |                                      |                 |                              |               |                     |                   |                       |                |           |  |

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|---|---|----------------------------|--|
|   | - 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.   |                            |  |
| 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> <p>(a) Appropriate location of equipment and buildings</p> <p>(b) Operational measures</p> <p>(c) Low-noise equipment</p> <p>(d) Noise control equipment</p> <p>(e) Noise abatement</p>   | CC                         | <p>The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.</p> <p>The Operator declared the following:</p> <ul style="list-style-type: none"> <li>• Use of noise control equipment in the form of acoustic guarding of the indoor machinery</li> <li>• Low noise equipment</li> <li>• Operational measures including deliveries limited to day-time only, and closed doors policy.</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> | CC                         | <p>The operator has provided information to support compliance with BATc 15. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 15.</p> <p>The Operator declared they are inspecting the site for odour releases and have a management system for assessing and actioning odour complaints.</p> <p>In addition, the Operator has an Odour Management Plan (OMP) that has been originally requested through IC1 and updated via IC25, both improvement conditions having been marked as complete.</p> |
| <b>PET FOOD BAT CONCLUSIONS (BAT 16-17)</b> |   |                            |  |
| 16  | <b>Energy efficiency – Green fodder only</b>  | N/A                        | The site does not process green fodder.  |

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|---|--|----------------------------|--|
|   | <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> <p>(a) Use of predried fodder<br/> (b) Recycling of waste gas from the dryer<br/> (c) Use of waste heat for pre-drying</p> <p>Applicable in addition to BAT6</p>  |                            | <p>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 grinding and/or 20mg/m<sup>3</sup> for cooling). However, as it is not a BAT-AEL, no derogation in required if the operator cannot achieve this. We will ensure they have the correct abatement and set an appropriate ELV with an IC.</p> | <p><b>NA</b></p>           | <p>We are satisfied that BAT-AEL is not applicable to this installation.</p> <p>There are no specific requirement for the pet food sector. However, we are looking to include ELVs for specific processes, shown below, where dust emissions are discharged to air.</p> <p>The site has the following dust emission points with average PM discharge values of:</p> <ul style="list-style-type: none"> <li>• A3 – 0.48 mg/m<sup>3</sup> (processing)</li> <li>• A4 – 0.39 mg/m<sup>3</sup> (grinder)</li> </ul> <p>We have taken this opportunity to include an ELV for emission point A3 of 20 mg/m<sup>3</sup>, and A4 of 10 mg/m<sup>3</sup>. Because the Operator is currently achieving this values, the ELVs will be applicable from the time of permit issue.</p> <p>Although the Operator uses cartridge filters instead of cyclone or bag filters, based on the monitoring values submitted, we do not consider appropriate to ask the Operator to replace these filters since compliance with new ELVs can be comfortably achieved using the existing dust abatement method.</p> |
| <b>Animal Feed Environmental Performance Levels</b> |  |                            |  |

| BATC No      | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries   | Status<br>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 – Energy Consumption for Pet Food</b></p> <table border="1" data-bbox="286 280 1173 491"> <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 <sup>(1)(2)(3)</sup></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.<br/> (2) The specific energy consumption level may not apply when fish and other aquatic animals are used as raw material.<br/> (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 | CC | <p>The operator has provided information to support compliance with BATc 17. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 17</p> <p>The operator reports that between during 2021 the site achieved an specific energy consumption of 0.5MWh/tonne, which is within the EPL range of 0.39 – 0.5 MWh/t for dry pet food.</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   |                            |   |   |               |                       |                                |              |  |              |           |    |   |
| EPL          | <p><b>Environmental performance level – Waste water discharge for Pet Food</b></p> <table border="1" data-bbox="286 667 1209 766"> <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           | <p>We are satisfied that EPL for wastewater discharge is not applicable to this installation.</p> <p>This site does not produces wet pet food, but dry only therefore, the EPL is not applicable.<br/> However, the Operator declared that achieved an annual performance level of 0.27 m<sup>3</sup>/t of dry product</p> |              |           |    |   |
|              | Product   | Unit                       | Specific waste water discharge (yearly average)   |   |               |                       |                                |              |  |              |           |    |   |
| Wet pet food | m3/tonne of products  | 1.3-2.4                    |   |   |               |                       |                                |              |  |              |           |    |   |

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

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

- Activity name
- Introductory note updated
- Site plan
- Table S1.1 overhaul
  - Activity Reference (AR) renumbering
  - Updated listed activities
  - Addition of production capacity
  - Directly associated activities (DAAs) standardisation

We have updated permit conditions to those in the current generic permit template as a part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

### **Capacity Threshold**

The Environment Agency is looking to draw a “line in the sand” for permitted production capacity; a common understanding between the Operator and regulator for the emissions associated with a (maximum) level of production, whereby the maximum emissions have been demonstrated as causing no significant environmental impact.

We have included a permitted production level (capacity) within table S1.1 of the permit for the section 6.8 listed activity and we need to be confident that the level of emissions associated with this production level have been demonstrated to be acceptable.

The Operator has completed a H1 assessment of emissions for typical figures of production at the time of permitting.

The existing H1 assessment of particulate emissions to air remains valid for the revised capacity threshold now placed within table S1.1 of the permit.

### **Emissions to Air**

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

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

## Implementing the requirements of the Medium Combustion Plant Directive

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

For the existing combustion plant with a rated thermal input less than 1 MW we will not be including any emission limit values or monitoring requirements within the permit, unless any site specific conditions require us to do this.

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.   | 4.4 MWth                                 |
| 2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).   | Boiler 1: 0.9 MWth<br>Boiler 2: 3.5 MWth |
| 3. Type and share of fuels used according to the fuel categories laid down in Annex II.   | Natural gas 100%                         |
| 4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018. | January 2006                             |

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

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

#### 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 point A4 against BAT 17 for dust emissions from the cartridge filters and carbon abatement respectively.

We have added an improvement condition (IC28) for size fractionation of particulate emissions because a BAT-AEL applies for dust emissions to air. The justification for this IC is that there are a number of activities within the FDM sector which may result in release of particulates to air e.g., drying, milling and grinding. Overall there is little available information on how much fine particulates are released. This IC is a one-off exercise requiring operators to monitor and report on the fractions of fine particulate (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions and increase our understanding of potential health effects. Where BAT-AELs may apply to multiple emission points e.g., grain milling, we may accept limited representative monitoring rather than expecting them to monitor every single emission point.

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

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

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

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

### **Soil & groundwater risk assessment (baseline report)**

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

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

The Operator submitted a site condition report [Document reference 12060675/001 from 21/12/2005] during the original application 25/01/2006 25/01/2006. The site condition report included a report on the baseline conditions as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

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

### **Hazardous Substances**

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

The operator has not identified any hazardous substances used / stored at the installation.

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).

### **Climate Change Adaptation**

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

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

We do not consider the operator to have submitted a suitable climate change adaptation plan for the installation. We have included an improvement condition into the permit (IC29) to request a climate change adaptation plan is submitted by the operator for approval from 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  | <p>The operator shall develop an odour management plan for the installation. The plan shall have regard to the requirements set out in Appendix 7 of the Agency's Horizontal Guidance for odour H4 and shall consider:</p> <ul style="list-style-type: none"> <li>• Activities and materials that may have a potential for odour</li> <li>• Conditions under which an odour release will occur</li> <li>• Prevention of release of odorous material</li> <li>• Annual analysis of odour complaints to identify the root cause of odour emissions. Where identified this analysis shall include proposed actions to eliminate cause for annoyance from odour as defined in the Agency guidance note H4.</li> </ul> <p>Upon completion of the plan, a summary shall be submitted to the Agency in writing with a timetable to implement any improvements identified for approval in writing by the Agency.</p>  |
| IC2  | <p>The operator shall develop a plan for the installation of continuous indicative monitoring for the effectiveness of the particulate abatement for emission points A3 and A4. The monitoring should be designed to indicate relative performance and /or process variation either through:</p> <ul style="list-style-type: none"> <li>• Continuous indicative monitoring of emissions of particulate matter from the final discharge to air. The indicative monitor shall be fitted with a visual and audible alarm, which activates at a reference level approved by the Agency in writing. The plant shall not continue operating until the problem has been rectified.</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>• A level sensor to detect blockages of the particulate abatement which is interlocked to the process to immediately shut down the grinder and raw material intake in the case of activation of the alarm. The plant shall not continue operating until the problem has been rectified.</li> </ul> <p>A written report detailing the plan and implementation timetable shall be submitted to the Agency for approval.</p> |
| IC3  | <p>The operator shall report progress in writing on establishing a computer based maintenance system.</p>   |
| IC4  | <p>The operator shall develop a written accident management plan having regard to the requirements set out in the Section 2.8 of the Agency technical guidance note IPPC S6.10, August 2003, and shall submit the plan in writing to the Agency.</p>  |
| IC5  | <p>The operator shall install a flow meter to continuously measure the flow at S1 that can achieve the performance criteria given in the</p>  |

|      |   |
|------|---|
|      | MCERTs standard 'Continuous water monitoring equipment part 3: Performance Standards for water flow meters version 1, February 2003'. The operator shall submit a report to the Agency that gives a comparison of the flow meter installed with the performance criteria given in the MCERTs standard.  |
| IC6  | The operator shall carry out a noise survey once the process is operating to validate the data submitted in the application that noise will not be a cause for nuisance.  |
| IC7  | The operator shall submit a report in writing using data from pre-operational condition 4 as required to: <ul style="list-style-type: none"> <li>• Demonstrate that there is no adverse impact on the environment from the effluent.</li> <li>• Suggest appropriate Emission Limit Values (ELV) for compliance based on the plant capabilities. These ELVs are to be approved by the Agency.</li> </ul>   |
| IC8  | The operator shall have in place their Environmental Management Procedures (EMPs) and their Quality Management Procedures (QMPs) referred to in chapter 7, page 35 of supplementary information. The operator is to confirm in writing to the Agency that these procedures are in place.  |
| IC9  | The operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S6.10, August 2003. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.  |
| IC10 | The operator shall validate the odour report submitted in the application using actual data for odour abatement efficiency and monitoring data. It should account for average and worst case emissions of odour from the operational process. Odour emissions data is to be collected for a representative range of product formulations and weather conditions over a minimum of 12 months. <p>The method of abatement efficiency measurements, offsite monitoring positions and methods, or use of surrogate data is to be approved by the Agency. A report is to be submitted to the Agency detailing the method, data and results of the new modelling and the critical appraisal of the validation of the original odour report to the satisfaction of the Agency.</p> |
| IC11 | The operator shall report progress in writing on achieving accreditation to ISO14001.   |
| IC12 | The operator shall submit a plan to be agreed by the Agency to monitor the overall odour abatement efficiencies across the Condenser, APP and Carbon Filters.   |
| IC13 | The operator shall submit a report containing all the relevant data collected in IC12 to show the odour abatement efficiencies across the three types of abatement units. To define the overall expected abatement efficiency for the installation for all the authorised product ranges and plant operating conditions. <p>The report shall compare the measured performance against:</p> <ul style="list-style-type: none"> <li>• The equipment supplier's specification and where improvements are identified list and schedule the required actions.</li> <li>• The process odour measurements and the ambient odour monitoring defined in table 1.6.2 item 2.</li> </ul>   |

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| IC14 | <p>The operator shall submit a detailed plan to control the increase in production such that no adverse environmental impacts occur, the plan shall be agreed in writing by the Agency. The plan shall consider the following steps:</p> <ol style="list-style-type: none"> <li>i. To increase the present production rate from 5.2 T/Hr of Supercroc or 4.2 T/Hr of Hypodog (T/Hr as wet rate).</li> <li>ii. To produce products from the Turkey and Rice range or other family groups of products.</li> <li>iii. To extend the plant production hours beyond the period 06:00 to 21:00.</li> <li>iv. To extend production hours to include weekend and bank holiday working.</li> </ol> <p>The plan shall include defined criteria that shall be met and agreed in writing by the Agency before production is increased in stages i to iv, the criteria shall be used to show no adverse environmental impacts. The plan shall also include the steps to be taken to reduce production rates or production times if adverse environmental impacts are detected by the operator or the Agency. If the plan to increase production is stopped due to adverse environmental impacts as detected by the operator then the Agency should be informed in writing.</p> <p>If the initial plan is stopped due to adverse environmental impacts then if required the Agency will consider a modified plan if submitted, to control any further production increases.</p> |
| IC15 | <p>The operator shall submit a report to justify the inclusion of the APP units in the odour abatement system, if found to be of little benefit then if agreed in writing by the Agency the operator shall decommission the APP units.</p>  |
| IC16 | <p>The operator shall submit a report defining the benefits to be derived from improving the dispersion characteristics from emission point A6 this shall include the changes that can be made at the present location and the benefits to be gained by relocating the emission point.</p> <p>The operator shall present a plan for agreement by the Agency to improve dispersion at emission point A6 and if justified a separate plan to relocate the emission point.</p> <p>The plans shall be implemented upon agreement from the agency.</p>   |
| IC17 | <p>The operator shall assess the benefits of installing a continuous gas analyser to measure TOC or other variable at the outlet and intermediate stages across the carbon filters to measure the absorption efficiencies across the carbon filters and to detect odour breakthrough and predict the life expectancy of the activated carbon in the filters. The assessment shall consider the advantages of using such a system against the odour detection method defined in pre operational condition 3 in table 1.6.2.</p> <p>If the assessment shows that the use of a TOC analyser is beneficial then the operator shall present a plan to install an analyser.</p>   |
| IC18 | <p>The operator shall submit data or present a plan to measure the gas composition for all product ranges to identify chemical compounds</p>  |

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|------|--|
|      | <p>which could be used as surrogate measures to measure the odour emission from emission point A6.</p> <p>Where surrogate compounds are identified present plans to install continuous gas analysis and suggest ELV to be adopted for agreement by the Agency or justify why surrogate compounds and ELV cannot be defined or are considered to offer little benefit.</p>  |
| IC19 | The operator shall present data or submit a plan to assess the impact of odour during start-up and shutdown periods. Where the data shows adverse environmental impacts on start-up or shutdown then the operator shall present a plan to include measures to reduce the odour impact on start-up and shutdown.  |
| IC20 | The operator shall conduct a noise survey to British standard BS4142 to demonstrate that there has been no adverse effect with the addition of the new odour abatement equipment and increased gas velocities at emission point A6.  |
| IC21 | The operator shall update the SPMP to include the air blaster condenser units.   |
| IC22 | The operator shall update the site closure plan to include the new odour abatement system.   |
| IC23 | <p>The operator shall submit a report to outline the process monitoring procedure for the odour abatement point A7 listed in table S3.1 to demonstrate that the abatement system will work effectively under normal operating conditions.</p> <p>This report shall include the following:</p> <ul style="list-style-type: none"> <li>• A revised odour sampling and testing procedure for the carbon filters. The sampling procedure shall meet the requirements of BS EN 13725: 2003.</li> <li>• A process monitoring plan outlining the methodology using the inlet and outlet pressure to detect and predict saturation of the carbon filter media.</li> <li>• Specified trigger levels to initiate carbon media replacement.</li> <li>• Monitoring frequencies for both the sampling procedure and the pressure measurements.</li> <li>• Details of remedial actions should monitoring indicate the carbon filter exceeds trigger levels.</li> </ul> |
| IC24 | <p>The operator shall carry out a review of the odour abatement monitoring procedures for emission points A6 and A7 listed in table S3.1 to ensure the abatement systems have been effective in minimising odorous emissions. The operator shall submit a written report to the Environment Agency following this review for written approval.</p> <p>This report shall include the following.</p> <ul style="list-style-type: none"> <li>• Odour monitoring results based on the sampling and testing procedure for odour sniff tests.</li> <li>• Process operation monitoring results.</li> </ul> <p>If emissions released from the abatement systems do not achieve the manufacturers recommendations and the defined trigger levels (as defined in IC23), the operator shall submit proposals to the Environment Agency along with timescales of implementation to</p>   |

|      |   |
|------|---|
|      | <p>improve the efficacy of the abatement system or provide alternative abatement.</p> <p>The operator shall implement the improvements in line with the timescales agreed with the Environment Agency.</p>  |
| IC25 | <p>The operator shall submit to the Environment Agency for written approval, a revised odour management plan which is in line with the requirement of the Environment Agency's guidance, H4 Odour Management – how to comply with your environmental permit. This shall, incorporate all of the improvements identified by the process monitoring procedure and review of the odour abatement systems as required in IC23 and IC24 above.</p> |

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>   |
| IC26                                      | <p>The operator shall confirm, achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BATc 6 and 7 are currently not demonstrated or achieved with respect to BATc.</p> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>  | <p>3 months from date of issue or as agreed in writing by the Environment Agency</p> |
| IC27                                      | <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 produce a plan for the onsite refrigerant system(s) at the installation. The plan is to be assessment by the Environment Agency and shall be incorporated within the existing environmental management system.</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 e.g. R-404A 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> | <p>3 months from date of issue or as agreed in writing by the Environment Agency</p> |
| IC28                                      | <p>The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point [A4], identifying the fractions within the PM<sub>10</sub> and PM<sub>2.5</sub> ranges. The monitoring shall be carried out</p>  | <p>12 months from permit issue or other date as agreed in writing with</p>           |



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|      | under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency.  | the Environment Agency   |
| IC29 | <p>The operator shall produce a climate change adaptation plan, which 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> <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p> | 12 months from permit issue or other date as agreed in writing with the Environment Agency |