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/VP3638HV
The Operator is:	Anglo Beef Processors UK
The Installation is:	Leeming Bar Meat Processing Unit
This Variation Notice number is:	EPR/VP3638HV/V004

What this document is about

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

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

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

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

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

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

How this document is structured

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

1 Our decision

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

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

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

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 01/08/2022 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 11/11/2022.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review but not that it necessarily contained all the information we would need to complete that determination.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 61 Notice response that appears to be confidential in relation to any party.

2.2 Review of our own information in respect to the capability of the Installation to meet revised standards included in the BAT Conclusions document

Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 6 and 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 IC 8 and IC9 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 22/03/2024 which requested further clarification on BATc's: 1 – 15 (inclusive), Environment Performance Levels for energy consumption and waste water use, Relative Hazardous Substances assessment and details regarding onsite containment. A response was received on 03/05/2024. A further clarification request was issued on 17/05/2024 and 20/05/2024 requiring further clarification on the response provided regarding the following BATc's 3, 6, 7, 8, 9, 10, 11 and 12. In addition further information was provided including a Bund and Tank Integrity Assessment. A response to the second clarification request was received on 24/05/2024. A copy of each of the further information requests and their responses 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
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	**Environmental Management System - Improve overall environmental performance.** Implement an EMS that incorporates all the features as described within BATc 1.	**CC**	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. The operator has an EMS externally accredited to the ISO14001 standard.
2	**EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.** 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.	**CC**	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. In addition to having an established and accredited EMS which is to ISO 15001 standard. The Operator has submitted the following to demonstrate compliance with BATc 2. • An overview of the site processes • Information in support of water usage on site. • Characterisation of the waste water stream and effluent monitoring results. • Information regarding the quantity and characteristics of waste gas streams from the onsite boilers including relevant pollutants (NO_x and SO_x) • Information on energy (gas & electricity) consumption across the site, water usage and raw materials usage along with wastes from the processes.

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
			• Identification of monitoring strategy aimed at reducing resources used on site.
3	**Monitoring key process parameters at key locations for emissions to water.** 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).	**CC**	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. All process effluent from the site is screened before discharging to the foul sewer for further treatment. The following parameters are monitored on a monthly basis (COD, Suspended Solids and pH) by Yorkshire Water.
4	**Monitoring emissions to water to the required frequencies and standards.** 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.	**NA**	We are satisfied that BATc 4 is not applicable to this Installation. All process effluent is screened before being discharged to the foul sewer. There is no direct discharge to surface water other than uncontaminated surface water.
5	**Monitoring channelled emissions to air to the required frequencies and standards.** BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.	**NA**	We are satisfied that BATc 5 is not applicable to this Installation. There are no channelled emissions to air, other than those from the onsite boilers. Emissions from the onsite boilers will be monitored in accordance with the medium combustion plant directive (MCPD).
6	**Energy Efficiency** 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.	**FC**	The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 6.

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
			The Operator has not provided an energy efficiency plan as required under BATc 6a, the Operator provided an ESOS report dated 2015, whilst this considers energy use it doesn't cover the requirements of BATc 6a. The Operator has identified the following techniques that are undertaken at the site to improve energy efficiency. • Burner regulation and control • Energy efficient motors • Heat recovery from refrigeration • Minimising boiler blowdown • Preheating of feedwater • The use of LED lighting • Process control systems • Reducing air leaks • Reducing heat loss with insulation • The use of variable speed drives We have included improvement condition (IC8) in the permit to achieve compliance. The operator is required to complete the improvement conditions and demonstrate compliance with the BAT Conclusions within 3 months of the variation being issued.
7	**Water and wastewater minimisation** 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. (a) water recycling and/or reuse (b) Optimisation of water flow	**CC**	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.

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
	(c) Optimisation of water nozzles and hoses (d) Segregation of water streams Techniques related to cleaning operations: (e) Dry cleaning (f) Pigging system for pipes (g) High-pressure cleaning (h) Optimisation of chemical dosing and water use in cleaning-in-place (CIP) (i) Low-pressure foam and/or gel cleaning (j) Optimised design and construction of equipment and process areas (k) Cleaning of equipment as soon as possible		The Operator has provided justification as to why water recycling and/or reuse as per the requirements of BATc 7a is not under undertaken at the site. This is due to food hygiene standards and associated protocols. The Operator has identified the following techniques that are undertaken to reduce water consumption and the volume of waste water discharged. • Optimised flow using flow meters. • Optimised hoses and nozzles for washdown and general cleaning. • Foul and storm water lines are segregated to different drainage channels. • Dry cleaning is undertaken within all areas on site. • High pressure cleaning is carried out where suitable. • Cleaning in place is carried out. • Low pressure foam cleaning is carried out where suitable. • Water reduction is considered when designing and constructing the facility and its equipment. • Cleaning is done on a very regular basis to ensure hygiene standards.
8	**Prevent or reduce the use of harmful substances** 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	**CC**	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.

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) Reuse of cleaning chemicals in cleaning-in-place (CIP) (c) Dry cleaning (d) Optimised design and construction of equipment and process areas		The Operator has identified the following techniques that are undertaken on site to prevent or reduce the use of harmful substances used. • The selection of chemicals is carried out based on needs of the facility and the activities • Dry cleaning is carried out • Optimisation of chemical use is done by daily measurement and control of usage as well as up to date chemical awareness training.
9	**Refrigerants** 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.	**FC**	The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 9. The Operator has provided an inventory of the refrigeration units at the site which includes the type and quantity of refrigeration gas used. A number of the units are listed as using R404a, R410a and R407c which have a global warming potential above 1,400 are considered to be a greenhouse gas. We have included an Improvement Condition which requires the Operator to provide a plan that where practicable considers the retro filling of systems containing high GWP refrigerants with refrigerants that have a lower GWP, in addition to an action log with timescales for the replacement of end-of-life equipment using refrigerants with the lowest practical GWP.

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 have included improvement condition (IC9) in the permit to achieve compliance. The operator is required to complete the improvement conditions and demonstrate compliance with the BAT Conclusions within 3 months of the variation being issued
10	**Resource efficiency** In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below: (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading	**CC**	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. The Operator has identified the following techniques that are undertaken to increase resource efficiency. • Screening from interceptor are taken offsite for treatment via Anaerobic Digestion • Animal by products go for further processing, either for rendering or anaerobic digestion • Residues are separated using splash protectors, screens, catch pots and drip trays. • No waste is sent to landfill, cardboard and plastic is baled on site for recycling. All other waste is baled on site and sent for incineration and heat recovery.
11	**Waste water buffer storage** In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.	**CC**	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.

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
			The Operator has stated that the balance tank has a buffer capacity ot 85,000 litres. In the event the discharge of effluent needs to be ceased, flow can be stopped at the discharge point and effluent can be held in the balance tank. The site has standard operating procedures in place for the containment of spills, this includes the use of bungs and booms to prevent liquids entering surface water systems.
12	**Emissions to water – treatment** In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below. Preliminary, primary and general treatment (a) Equalisation (b) Neutralisation (c) Physical separate (eg screens, sieves, primary settlement tanks etc) Aerobic and/or anaerobic treatment (secondary treatment) (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc) (e) Nitification and/or denitrification (f) Partial nitration - anaerobic ammonium oxidation Phosphorus recovery and/or removal (g) Phosphorus recovery as struvite (h) Precipitation (i) Enhanced biological phosphorus removal Final solids removal (j) Coagulation and flocculation (k) Sedimentation (l) Filtration (eg sand filtration, microfiltration, ultrafiltration) (m) Flotation	**CC**	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. Process effluent produced during the process is treated by physico-chemical means at the sites effluent treatment plant prior to discharge to the foul sewer under a trade effluent consent from Yorkshire Water. The treatment process involves; • Screening to remove large debris before the effluent enters the sump pit. • Balancing of the effluent • Flocculation is undertaken within the dissolved air filtration tank (DAF), solids are scrapped into the solids tank.

<table>
<tr><th>BATC No.</th><th>Summary of BAT Conclusion requirement for Food, Drink and Milk Industries</th><th>Status
NA/ CC / FC / NC</th><th>Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement</th></tr>
<tr><td>12</td><td>Emissions to water – treatment
BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body

<table><tr><th>Parameter</th><th>BAT-AEL (1) (2) (daily average)</th></tr><tr><td>Chemical oxygen demand (COD) (3) (4)</td><td>25-100 mg/l (5)</td></tr><tr><td>Total suspended solids (TSS)</td><td>4-50 mg/l (6)</td></tr><tr><td>Total nitrogen (TN)</td><td>2-20 mg/l (7) (8)</td></tr><tr><td>Total phosphorus (TP)</td><td>0,2-2 mg/l (9)</td></tr></table></td><td>NA</td><td>We are satisfied that the BAT-AELs associated with BATc 12 are not applicable to this Installation.

All effluent is discharged after treatment to the foul Yorkshire Water Sewer.</td></tr>
<tr><td>13</td><td>Noise management plan
In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:
- a protocol containing actions and timelines;
- a protocol for conducting noise emissions monitoring;
- a protocol for response to identified noise events, e.g. complaints;
- a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.
Note: BAT13 is only applicable where a noise nuisance at sensitive receptors is expected and/or has been substantiated.</td><td>NA</td><td>We are satisfied that BATc 13 is not applicable to this Installation.

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 nuisances from the site therefore an NMP is not a requirement for this site.

The Operator has stated that a noise management plan that is incorporated with the site EMS, however this hasn’t been assessment as part of this variation.</td></tr>
<tr><td>14</td><td>Noise management
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.
(a) Appropriate location of equipment and buildings
(b) Operational measures
(c) Low-noise equipment
(d) Noise control equipment
(e) Noise abatement</td><td>CC</td><td>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.

The Operator has stated that the following techniques are utilised at the site to reduce noise emissions, these include.</td></tr>
</table>

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
			• All activities are undertaken indoors within purpose-built buildings. • Regular maintenance of equipment • All doors and windows are closed • Enforced speed limits across the site • The use of electrical hook-ups to prevent the idling of engines.
15	**Odour Management** In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures.		We are satisfied that BATc 15 is not applicable to this Installation. BATc 15 is only applicable where odour nuisance has been substantiated or is expected at sensitive receptors. There is no history of odour related complaints. The Operator has stated that they have an odour management plan that is incorporated with the site EMS, however this hasn't been assessment as part of this variation.
	MEAT PROCESSING BAT CONCLUSIONS (BAT 29)		
29	**Emissions to air – Meat Processing Sector** In order to reduce channelled emissions of organic compounds to air from meat smoking, BAT is to use one or a combination of the techniques given below	**NA**	We are satisfied that BATc 29 is not applicable to this Installation. The Operator stated that the sites does not uses any of the techniques listed to reduce channelled emissions from on-site smoking.

<table>
<tr><th>BATC No.</th><th>Summary of BAT Conclusion requirement for Food, Drink and Milk Industries</th><th>Status
NA/ CC / FC / NC</th><th>Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement</th></tr>
<tr><td>29</td><td>BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from a smoke chamber
<table><tr><td>Parameter</td><td>Description</td><td>BAT-AEL (average over the sampling period)</td></tr><tr><td>TVOC</td><td>Mg/Nm^3</td><td><3-50 (1)(2)</td></tr><tr><td colspan="3">(1) The lower end of the range is typically achieved when using adsorption or thermal oxidation.
(2) The BAT-AEL does not apply when the TVOC emission load is below 500 g/h.</td></tr></table>The associated monitoring is given in BAT 5.</td><td>NA</td><td>We are satisfied that the BAT-AELs associated with BATc 29 are not applicable to this Installation.

The Operator stated that the sites does not uses any of the techniques listed to reduce channelled emissions from on-site smoking</td></tr>
<tr><td colspan="2">Meat Processing Environmental Performance Levels</td><td></td><td></td></tr>
<tr><td>EPL</td><td>Environmental Performance Level – Energy consumption for the meat processing sector
<table><tr><td>Unit</td><td>Specific energy consumption (yearly average)</td></tr><tr><td>MWh/tonne of raw materials</td><td>0,25-2,6 (1) (2)</td></tr><tr><td colspan="2">(1) The specific energy consumption level does not apply to the production of ready meals and soups.
(2) The upper end of the range may not apply in the case of a high percentage of cooked products.</td></tr></table></td><td>CC</td><td>The operator has provided information to support compliance with EPL for energy consumption. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance against the EPL for energy consumption.

The Operator recorded an energy consumption of 0.77 MWh/t of raw material, which is within the rage of 0.25-2.6 MWh per tonne of raw material processed.</td></tr>
<tr><td>EPL</td><td>Environmental Performance Level – Specific waste water discharge for the meat processing sector
<table><tr><td>Unit</td><td>Specific waste water discharge (yearly average)</td></tr><tr><td>m3 /tonne of raw materials</td><td>1,5-8,0 (1)</td></tr><tr><td colspan="2">(1) The specific waste water discharge level does not apply to processes using direct water cooling and to the production of ready meals and soups.</td></tr></table></td><td>CC</td><td>The operator has provided information to support compliance with EPL for waste water discharge. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance against the EPL for waste water discharge.

The Operator recorded a waste water discharge consumption figure of 1.33 m^3/tonne of raw material, which is below the rage of 1.5-8.0 m^3/ tonne of raw material processed.</td></tr>
</table>

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

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.

This included some other administrative changes to the permit to ensure cross-sector consistency, including:

- An 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
- Standardisation of reporting parameters.

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.

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

The Operator has stated that the site has a maximum operational capacity of 850 tonnes/week and operates on a 5 day week, this equates to a daily capacity of 170 tonnes/day.

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.

COD Loss efficiency

As part of the Food, Drink and Milk permit review Operators are required to report on COD efficiency which focuses on losses to effluent, mainly during the cleaning processes. The requirement requires a weekly assessment of the COD load within the raw effluent and is reported as COD te/tonne of product. During the determination the

Operator challenged the adoption of this approach, in that they measure product loss is in tonnes rather than via COD. The Operator follows the WRAP guidance for reporting food waste and the product is weighted at every stage through the process, including any waste. We have considered the Operators alternative method for measuring food waste and have removed the COD loss efficiency performance reporting parameter form the variation. In addition, the sewer undertaker monitors COD on a monthly basis. The Operator has agreed to provide the monitoring results to the Environment Agency.

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

The Operator provided the information in the table below:

Boiler

1. Rated thermal input (MW) of the medium combustion plant.	1.3 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	September 1998

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

For existing MCP with a rated thermal input of less than or equal to 5 MW, the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030. We have included the appropriate emission limit values for existing medium combustion plant as part of this permit review. See Table S3.1 in the permit. We have also included a new condition 3.1.4 within the permit which specifies the monitoring requirements for the combustion plant in accordance with the MCPD.

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 [Site Report – Dalepak Foods, dated 25/01/2004] during the original application received on 06/08/2004. This was prior to the site being transferred to ABP on 18/11/2010. 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.

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

Hazardous Substances

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

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 undertaken an assessment to identify if any hazardous substances are used or stored at the installation.

The operator is required to undertake an assessment to ascertain if any hazardous substances are used or stored at the site. If hazardous substances are found to be used or stored at the site the operator is to undertake a short risk assessment on the hazardous substances stored and used at the installation. The risk assessment is 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.

We have included an improvement condition into the permit (IC10) to request that the assessment is undertaken and is submitted by the operator for approval from the Environment Agency.

If the outcome 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 (IC11).

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 (IC12) to request a climate change adaptation plan is submitted by the operator for approval from the Environment Agency.

Containment

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

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 and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC13). See Improvement condition(s) in Annex 3 of this decision document.

In addition we have added a further Improvement Condition (IC 14) for the Operator to provide an updated site drainage plan. During the determination, the Operator advised that a drainage survey is being undertaken to show the location of all effluent and surface water flows and once completed updated drainage plans will be provided to the Environment Agency. The plans shall confirm the location of the emission points to the foul sewer and surface water sewer were relevant.

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.

Superseded Improvement Conditions – Removed from permit as marked as "complete"	
Reference	**Improvement Condition**
IC1	The operator shall review the options available for the removal of entrained oil from fryer exhaust gases. If any options are found which represent BAT for the future (from Sector Guidance Note S6.1 August 2003), a summary of the assessment shall be sent to the Agency in writing together with a timetable to implement any necessary changes identified.
IC2	The Operator shall carry out an assessment of the options available for dealing with process effluent, taking into account cleaning, water efficiency measures and the resulting process effluent (Section 2.4 and 2.6 respectively of the Sector Guidance Note S6.10 August 2003). A written report summarising the techniques and options shall be submitted to the Agency
IC3	The Operator shall undertake a risk assessment of the sunflower oil storage tank (in respect of any spillages being harmful to the environment). The assessment shall take into account the requirements of section 2.2.5 of the Sector Guidance Note S6.10 August 2003. A written report summarising the findings shall be submitted to the Agency, including a timetable of any changes that can be made.
IC4	The Operator shall complete the lagging of all heat-carrying process pipework (as stated in Operators improvement programme). The Agency shall be informed in writing when this is complete
IC5	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Sector Guidance Note S6.10, August 2003. Upon completion of the plan, a written summary of the document shall be submitted to the Agency.
IC6	The Operator shall develop and implement a documented system of environmental management techniques, having regard to the Sector Guidance Note S6.10, August 2003.
IC7	The operator is to assess the storage of all liquid waste that is stored in the car park. The operator should provide suitable protection to surface water. The operator is to provide a timetable and summary of the improvements that are to be made

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

Improvement programme requirements		
Reference	**Reason for inclusion**	**Justification of deadline**
IC8	The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the 'Narrative' BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following: • Methodology applied for achieving BAT • Demonstrating that BAT has been achieved. The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 6 Refer to BAT Conclusions for a full description of the BAT requirement.	3 months from date of issue or as agreed in writing by the Environment Agency
IC9	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. 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 assessed by the Environment Agency and shall be incorporated within the existing environmental management system. The plan should include, but not be limited to, the following: • Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.	3 months from date of issue or as agreed in writing by the Environment Agency
IC10	The operator shall submit to the Environment Agency for approval a risk assessment considering the possibility of soil and groundwater contamination at the installation where the activity involves the use, production or release of a hazardous substances (as defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures).	12 months from date of permit issue or as agreed in writing with the Environment Agency

	A stage 1-3 assessment should be completed (as detailed within the EC Commission Guidance 2014/C 136/-3) as follows; • Stage 1 – Identify hazardous substance(s) used / stored on site. • Stage 2 – Identify if the hazardous substance(s) are capable of causing pollution. If they are capable of causing pollution, they are then termed Relevant Hazardous Substances (RHS). • Stage 3 – Identify if pollution prevention measures & drains are fit for purpose in areas where hazardous substances are used / stored. If the outcomes of Stage 3 identifies that pollution of soil / ground water to be possible. The operator shall produce and submit a monitoring plan to the Environment Agency for approval detailing how the substance(s) will be monitored to demonstrate no pollution. The operator shall commence monitoring of the RHS within a timescale as agreed by the Environment Agency.	
IC11	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 (undertaken in IC 10), will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval. The plan shall be implemented in accordance with the Environment Agency's written approval, including timescales to undertake any infrastructure improvements.	12 months from date of permit issue or as agreed in writing with the Environment Agency
IC12	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: • Details of how the installation has or could be affected by severe weather; • The scale of the impact of severe weather on the operations within the installation; • An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.	12 months from date of permit issue or 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.	
IC13	The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including: • CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises, • EEMUA 159 - Above ground flat bottomed storage tanks The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of • current containment measures • any deficiencies identified in comparison to relevant standards, • improvements proposed • time scale for implementation of improvements. The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency.	12 months from date of permit issue or as agreed in writing with the Environment Agency
IC14	The Operator shall undertake a survey of the sub drainage network within the installation boundary and provide an updated ‘Site Drainage Plan’ to the Environment Agency for confirmation. The plan shall detail the sub drainage network (foul effluent and surface water) and all resulting emission points.	3 months from date of permit issue or as agreed in writing with the Environment Agency