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/BP3936KB
The Operator is:	Pilgrim's Pride Ltd.
The Installation is:	Bromborough Food Manufacturing Installation
This Variation Notice number is:	EPR/BP3936KB/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 02/08/2022 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 01/12/2022.

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 9. In relation to this BAT Conclusion, 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 Condition 1 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 28/08/2024, regarding information on the f-gases used on site and compliance with BATc 9. 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 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. Additionally, the Operator provided a summary of their EMS which incorporates all of BATc 1 requirements.
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. The Operator declared: • Inventory kept for key parameters of water use, energy use and raw material consumption. • Information detailing the characteristics of waste streams produced on site. • Process flow charts for food hygiene procedures demonstrating the origin of emissions. The operator has a EMS externally accredited to the ISO14001 standard. Additionally, the Operator provided a summary of their EMS which incorporates all of BATc 2 requirements.
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.	**CC**	The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the Operator to demonstrate compliance with the BAT Conclusion requirement
	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).		satisfied that the operator has demonstrated compliance with BATc 3. The operator monitors all site effluent daily, for temperature and pH before treatment and flow rate at the point the effluent leaves the site. Furthermore the effluent is monitored for suspended solids, chemical oxygen demand (COD), iron and separable oil and grease by the sewage undertaker.
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. This BATc is concerned with discharges of process effluent to controlled waters and this installation does not have such discharges. All treated waste water is discharged directly to sewer under consent of United Utilities. As such, BATc 4 is not applicable.
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. This BATc is concerned with channelled dust emissions to air from processes such as grinding, cooling, or drying. This installation does not have any of this processes therefore, BATc 5 is not applicable.
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.	**CC**	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. The operator has set out annual energy efficiency targets and continuous improvement in energy efficiency is embedded within the onsite activities and fundamental to the monitoring and targeting of site performance.

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the Operator to demonstrate compliance with the BAT Conclusion requirement
			In addition to this the operator used the following techniques to ensure energy efficiency: *Burner regulation and control* - All combustion plant operations are inspected and serviced at least annually which includes balancing and efficiency testing. All inspections are conducted in accordance with the manufacture's recommendations. *Energy-efficient motors* - The site has had surveys by third-party power transmission specialists and will replace IE3 with IE4 motors as part of a rolling programme. The site has utilised the assessment to with opportunities for replacement to realise efficiency gain opportunities on stock items. Energy efficiency of motors is a consideration of the Capex and change management process with variable speed drives specified on pumps and frequency controllers on motors where applicable. *Lighting* - The site has replaced lighting with LED across all production areas and back rooms. *Process control systems* - The efficiency of the process is continually reviewed, and measures introduced to optimise the operation of the process with respect to yield and utility consumption. The utility programme targets energy efficiency measures to deliver year on year improvement in energy efficiency that the site is held accountable to deliver. *Reducing compressed air system leaks* - Compressed air systems are optimised and

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			maintained. The site monitors compressed air usage and leaks identified through routine and focused initiatives. *Reducing heat losses by insulation* - Chilled water and pumps, headers steam, hot and cold pipework is generally lagged. The fabric of the building offering a degree of insulation through the use of rockwool/insulated panels. *Variable speed drives* - VSD are installed across a number of larger drives including the compressors.
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 (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	**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. The site does not currently utilize any water recycling on site, due to the restrictions in size and the limitations set by food safety standards. This is reviewed regularly to determine if there is a feasible way for the site to recycle water. The site uses the following techniques to reduce water usage: b) *Optimisation of water flow* - The manufacturing processes are controlled using a combination of set points including temperatures, flow rates, levels etc. The design of the installation incorporates flow meters, and VSD that reduce consumption and minimise discharge. All thermostatically controlled censor taps are in place with further CAPEX pending. *c) Optimisation of water nozzles and hoses* - Specific nozzles are used depending on use

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
			(for cleaning) to minimise water/chemical consumption. Hose guns and trigger controls employed, and the pressure of the delivery systems regulate for the needs of the operator in the area. The applicability of this is reviewed in line with food and safety concerns. d) *Segregation of water streams* - The routing and condition of raw, process and surface water drains is known and documented for the site. All process contaminated wastewater is directed to the effluent drains for treatment. Uncontaminated rainwater and site run off is directed to surface water drains. *e) Dry cleaning* - The site operates a "Clean As You Go" policy and where possible dry cleaning techniques are used which is subject to process confirmation within each area. *g) High-pressure cleaning* - Cold water power washers and hand scrubbing are employed across the site where applicable and in accordance with food safety. *i) Low-pressure foam and/or gel cleaning* - foaming systems are employed to allow more controlled dosing of chemicals and a reduction in rinse water. Their use is incorporated and expanded as part of the planned cleaning regimes. k) *Cleaning of equipment as soon as possible* - Cleaning equipment is carried out to prevent product hardening through hygiene operations for specific equipment and as part of the "Clean As You Go" policy. The main cleaning is undertaken during a specific hygiene

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
			window due to the proximity of lines and for food safety concerns.
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 (b) Reuse of cleaning chemicals in cleaning-in-place (CIP) (c) Dry cleaning (d) Optimised design and construction of equipment and process areas	**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. The operator uses a combination of techniques on site to ensure harmful substance use is reduced, this includes: • Proper selection of cleaning chemicals and/or disinfectants • Dry cleaning • Proper selection of cleaning chemicals and/or disinfectants.
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. Improvement condition 1 has been included in the permit to ensure future compliance The Operator did not provide suitable evidence regarding the global warming potential (GWP) of the on-site refrigerants and no plan for replacement of any models that do have a high GWP.
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 separates all residues and sends these to a third party to be made into other products, the waste is sent to rendering sites for processing. Furthermore, sludge recovered

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the Operator to demonstrate compliance with the BAT Conclusion requirement
			in the effluent treatment plant is sent off site for anaerobic digestion.
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. A buffer tank is located prior to the effluent treatment plant (ETP) allowing all effluent to be monitored before treatment. The tank allows flow to the ETP to be shut off to control any out of spec effluent, this can then be treated before further treatment in the ETP. The ETP and storage tanks are sufficiently bunded and inspected to ensure uncontrolled emissions can be contained and dealt with appropriately, preventing environmental contamination. Furthermore, penstock valves are in place at key locations in addition to spill kits across the site for smaller spillages.
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	**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. The on-site effluent treatment plant (ETP) processes all process related effluent. The effluent is collected in a balance tank where the flow is balanced and the pH is adjusted accordingly. Solids are removed via an aqua rake conveyor system and solids are deposited into a case container for transport off site, the removal of sludge allows for phosphorous removal. The effluent is then flocculated before discharge to sewer under consent of United Utilities for further treatment,

<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></td><td>(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</td><td></td><td>once treated by United Utilities the effluent is discharged to the River Mersey.

The site has a dissolved air floatation (DAF) plant installed however this is not currently used in the process as effluent can meet the discharge consent without this. The DAF plant remains installed should the Operator require it to treat any effluent that is out of specification.</td></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 BATc 12-AELs are not applicable to this Installation.

This BATc in concerned with direct discharges to water. All treated waste water is discharged directly to sewer under consent of United Utilities. As such, BATc 12-AELs is not applicable to this installation.</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.</td><td>NA</td><td>The operator has provided information to support compliance with BATc 13. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 13.
This BATc is concerned with sites that have received previous noise nuisance complaints. This installation has not received any of these in recent times and therefore, BATc 13 is not applicable.</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
14	**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	**CC**	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 site has adopted various noise mitigation techniques to prevent noise nuisance. This includes: - Noisier activities (such as deliveries) are scheduled to specific times - Energy efficient and noise reducing fans, motors and pumps have been fitted to production areas
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.	**NA**	We are satisfied that BATc 15 is not applicable to this Installation. The site has not received any odour complaints and as such does not require an odour management plan and BAT15 is not applicable.
	Meat processing sector BAT conclusions		
29	**Emissions to air** 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. (a) Adsorption (b) Thermal oxidation (c) Wet scrubber (d) Use of purified smoke	**NA**	We are satisfied that BATc 29 is not applicable to this Installation. This BATc is concerned with sites that smoke meats during their process. This installation does not undertake any smoking of meats, except by liquid smoke, and as such BATc 29 is not applicable.

<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>Emissions to air – AEL
Table 18
BAT-associated emission level (BAT-AEL) for channelled TVOC emissions to air from a smoke chamber
<table><tr><th>Parameter</th><th>Unit</th><th>BAT-AEL
(average over the sampling period)</th></tr><tr><td>TVOC</td><td>mg/Nm³</td><td>3-50 (1) (2)</td></tr></table>(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><td>NA</td><td>We are satisfied that BATc 29-AELs are not applicable to this Installation.
These BAT-AELs are concerned with sites that smoke meats during their process. This installation does not undertake any smoking of meats, except by liquid smoke, and as such BATc 29-AELs are not applicable.</td></tr>
<tr><td colspan="2">Meat Processing Sector Environmental Performance Levels</td><td></td><td></td></tr>
<tr><td>EPL</td><td>Environmental Performance Level – energy consumption for the meat processing sub-sector
Table 16
Indicative environmental performance level for specific energy consumption
<table><tr><th>Unit</th><th>Specific energy consumption
(yearly average)</th></tr><tr><td>MWh/tonne of raw materials</td><td>0,25-2,6 (1) (2)</td></tr></table>(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><td>CC</td><td>The operator has provided information to support compliance with the EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with the EPL for energy consumption.
The operator has stated an energy consumption of 0.22 MWth/tonne of raw material and as such fall within the guidelines set out in the BAT conclusions.</td></tr>
<tr><td>EPL</td><td>Environmental Performance Level – Specific waste water discharge for the meat processing sub-sector
Table 17
Indicative environmental performance level for specific waste water discharge
<table><tr><th>Unit</th><th>Specific waste water discharge(yearly average)</th></tr><tr><td>m³/tonne of raw materials</td><td>1,5-8,0 (1)</td></tr></table>(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><td>CC</td><td>The operator has provided information to support compliance with the EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with the EPL for specific waste water discharge.
The operator has stated a specific waste water discharge of 0.56 m³/tonne of raw product and as such fall within the guidelines set out in the BAT conclusions.</td></tr>
</table>

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

Updating permit during permit review consolidation

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

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

Production/Capacity threshold

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

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

The Operator has completed a H1 assessment of emissions for typical figures of production at the time of varying the permit (V003) in 2020.

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.

There are no boilers on site that have a rated thermal input of more than 1 and as such the medium combustion plant directive is not applicable.

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

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

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

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

Soil & groundwater risk assessment (baseline report)

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

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

The Operator submitted a site condition report [Application Variation Reg 61 Response 01122022-V004 - Original Site Condition Report] during the original application received on 23/06/2010. 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.

Hazardous Substances

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

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

The stage 1 assessment identified the hazardous substances used / stored on site. The stage 2 assessment identified if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS). The Stage 3 assessment identified if pollution

prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drains as well.

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

Climate Change Adaptation

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

The Operator has stated that the installation is not likely to be or has previously not been affected by climate change.

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. 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).

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**
IC1	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