

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/DP3033AW
The Operator is: Pladis (UK) Limited
The Installation is: Jacobs Bakery
This Variation Notice number is: EPR/DP3033AW/V002

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 and any changes to the operation of the installation.

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 03/10/2022 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 02/03/2023.

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

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

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

Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 6. 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 11 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 04/07/2024. A copy of the further information request was placed on our public register. The following information was requested:

BATc 6 – clarification of what techniques are currently being used on site to meet energy efficiency and if there is an energy efficiency plan in place and to provide a copy
 BATc 9 – provide a copy of the plan in place to replace the higher GWP models
 BATc 10 – explain the current process in place to reduce waste
 BATc 11 – provide bund capacity details for the balance tank
 BATc 12 – confirmation of what techniques are being used to treat the effluent
 BATc 14 – provide details regarding operational measures currently being utilised on site for noise minimisation
 Medium Combustion Plant – information regarding boilers utilised on site.

3 The legal framework

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

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

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

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

Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

NA – Not Applicable

CC – Currently Compliant

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

NC – Not Compliant

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
GENERAL BAT CONCLUSIONS (BAT 1-15)			
1	<p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p>	CC	<p>The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.</p> <p>The operator is fully compliant with all aspects of BATc 1 and has an EMS externally accredited to the ISO14001 standard.</p>
2	<p>EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions.</p> <p>Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.</p>	CC	<p>The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2.</p> <p>The operator declared:</p> <ul style="list-style-type: none"> - The on-site EMS contains process flow diagrams and descriptions of the process-integrated techniques. - Water usage and discharge is monitored frequently and characteristics of the wastewater is recorded. - Energy data is tracked and recorded by a central team and energy projects are implemented where feasible. <p>The operator has an EMS externally accredited to the ISO14001 standard. The EMS in place has all the measures required by the BAT conclusions.</p>
3	<p>Monitoring key process parameters at key locations for emissions to water.</p> <p>For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).</p>	CC	<p>The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3.</p>

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 waste water from the site is discharged to sewer with monitoring carried out on monthly basis by United Utilities at discharge point for the following parameters are monitored; suspended solids at pH7, pH, settled chemical oxygen demand (COD) and separable Oil & Grease
4	<p>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.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this Installation.</p> <p>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.</p>
5	<p>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.</p>	NA	<p>We are satisfied that BATc 5 is not applicable to this Installation.</p> <p>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.</p>
6	<p>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.</p>	FC	<p>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.</p> <p>Site based eco teams have been put in place to look/implement energy saving strategies, with allocated budget.</p> <p>The Pladis Group have science based targets for Carbon reduction. All energy use is</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
			<p>centrally recorded and each site has capital projects to reduce energy use.</p> <p>A copy of the ESOS Audit (uploaded to DMS) was provided upon request with the following in place:</p> <p>Site based eco teams have been put in place to look/implement energy saving strategies, with allocated budget.</p> <p>Central function is monitoring site-based energy usage with all managers Kpi's for a 3.5% reduction in energy usage</p> <p>Pladis has signed up for science based targets (with a formal 4.2% reduction in CO2 each year required)</p> <p>Pladis progressing to achieving ISO 50001 energy management certification by June 2025</p> <p>The audit provided does not constitute a plan to become energy efficient and therefore IC11 has been included to ensure a sufficient energy efficiency plan is produced by the Operator.</p>
7	<p>Water and wastewater minimisation</p> <p>In order to reduce water consumption and the volume of waste water discharged, BAT is to use BAT 7a and one or a combination of the techniques b to k given below.</p> <p>(a) water recycling and/or reuse</p> <p>(b) Optimisation of water flow</p> <p>(c) Optimisation of water nozzles and hoses</p> <p>(d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p>	CC	<p>The operator has provided information to support compliance with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.</p> <p>The site has implemented a range of measures for the minimisation, recycling and re-use of water, as far as is reasonably practical in a food manufacturing environment;</p> <p>1) Dry Cleaning is implemented in preference to wet cleaning</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	(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		2) Automated systems with water recycling and high pressure / low volume nozzles area used where feasible 3) Removal of un-necessary hoses and installation of trigger operating mechanisms on all remaining hoses that automatically shut off when not in use. 4) Automated / monitored blow down mechanisms on boilers to ensure only occurs when required to optimise system 5) Upgrade of steam traps to minimise unnecessary steam loses. The following recycling and re-use initiatives have been applied by the site; 1) The re-circulation of water in mixer jackets 2) Condensate return system on steam boilers to allow recovery of water from steam 3) Re-circulation of water in tray wash, mould wash and bin wash machines
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. Site uses SEVRON system where all chemicals need to be approved by management before use - no chemicals that cause significant harm to people or the environment are used. Optimisation of Chemical usage - Chemicals are reused in washers (mould wash, tray wash, bin wash) The site also utilizes cleaning in place to limit chemical use.
9	Refrigerants	CC	The operator has provided information to support compliance with BATc 9. We have

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.		assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9. The site still has some older refrigerants in use with a higher global warming potential (GWP) however the site has a plan in place to ensure lower GWP models are selected for replacement when necessary.
10	<p>Resource efficiency</p> <p>In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below:</p> <p>(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</p>	CC	<p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The site follows a hierarchy of control for waste. Food waste or imperfect finished product is controlled through several avenues.</p> <ul style="list-style-type: none"> - Implementation of waste targets and process improvements - Re-feeding process intermediates back into the manufacturing process - Reusing finished product as a compound addition into the baking process - Selling imperfect product to company shop outlet - Selling imperfect product to animal feed outlets - Finally anaerobic digestion through a waste broker <p>All non-food waste streams are recycled were possible with waste to energy being the last option.</p> <p>The site employs a waste broker (Mobius) to handle waste streams.</p>
11	<p>Waste water buffer storage</p> <p>In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p>	CC	The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are

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			<p>satisfied that the operator has demonstrated compliance with BATc 11.</p> <p>All site water goes to trade sewer, the site has 100m³ capacity balance tanks onsite the bund capacity for the balance tank is 19,210 litres. Furthermore the Operator has spill kits in strategic locations across the site.</p>
12	<p>Emissions to water – treatment</p> <p>In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <p>(a) Equalisation</p> <p>(b) Neutralisation</p> <p>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</p> <p>(e) Nitrification and/or denitrification</p> <p>(f) Partial nitrification - anaerobic ammonium oxidation</p> <p>Phosphorus recovery and/or removal</p> <p>(g) Phosphorus recovery as struvite</p> <p>(h) Precipitation</p> <p>(i) Enhanced biological phosphorus removal</p> <p>Final solids removal</p> <p>(j) Coagulation and flocculation</p> <p>(k) Sedimentation</p> <p>(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)</p> <p>(m) Flotation</p>	CC	<p>The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.</p> <p>The site has a dissolved air floatation plant in which the pH is neutralized before undergoing flocculant and coagulant treatment to remove solids from the waste effluent by dissolved air flotation. The removed solid sludge is stored in a tank prior to off-site disposal.</p> <p>Waste effluent is discharged to United Utilities sewer within consent limits.</p>
12	<p>Emissions to water – treatment</p> <p>BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</p>	NA	<p>We are satisfied that BATc 12-AELs are not applicable to this Installation.</p> <p>This BATc is concerned with direct discharges to water. All treated waste water is discharged directly to sewer under consent of United</p>

BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement										
	<table border="1"> <thead> <tr> <th data-bbox="280 256 770 300">Parameter</th> <th data-bbox="770 256 1211 300">BAT-AEL (%) (daily average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 300 770 343">Chemical oxygen demand (COD) (%) (%)</td> <td data-bbox="770 300 1211 343">25-100 mg/l (%)</td> </tr> <tr> <td data-bbox="280 343 770 386">Total suspended solids (TSS)</td> <td data-bbox="770 343 1211 386">4-50 mg/l (%)</td> </tr> <tr> <td data-bbox="280 386 770 429">Total nitrogen (TN)</td> <td data-bbox="770 386 1211 429">2-20 mg/l (%) (%)</td> </tr> <tr> <td data-bbox="280 429 770 472">Total phosphorus (TP)</td> <td data-bbox="770 429 1211 472">0,2-2 mg/l (%)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (%) (daily average)	Chemical oxygen demand (COD) (%) (%)	25-100 mg/l (%)	Total suspended solids (TSS)	4-50 mg/l (%)	Total nitrogen (TN)	2-20 mg/l (%) (%)	Total phosphorus (TP)	0,2-2 mg/l (%)		Utilities. As such, BATc 12-AELs is not applicable to this installation.
Parameter	BAT-AEL (%) (daily average)												
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Total nitrogen (TN)	2-20 mg/l (%) (%)												
Total phosphorus (TP)	0,2-2 mg/l (%)												
13	<p>Noise management plan</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. 	CC	<p>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.</p> <p>A noise management plan was requested in the previous permit (A001) this has since been submitted and accepted by the environment agency. Periodic noise surveys are completed by an external contractor and appropriate measures taken to mitigate noise.</p>										
14	<p>Noise management</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given below.</p> <ol style="list-style-type: none"> (a) Appropriate location of equipment and buildings (b) Operational measures (c) Low-noise equipment (d) Noise control equipment (e) Noise abatement 	CC	<p>The operator has provided information to support compliance with BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.</p> <p>A noise management plan (NMP) is currently in place with the following information:</p> <p>All the sources of noise from the site are assessed and then assigned a rank of either low, medium or high. Those assessed and ranked as being low significance are considered to require no further action. Sources marked as MEDIUM and HIGH significance must be addressed by the action</p>										

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			<p>plan put in place by EMSAS (Safety and environmental consultants).</p> <p>The following actions are put in place by the Operator to mitigate noise pollution:</p> <ul style="list-style-type: none"> - Relocation or enclosure of high noise equipment - Acoustic insulation of inlet/outlet/vacuum pumps - Isolation of units from brick and concrete structures by mounting on anti-vibratory mounts - Inspection of motors for 'wear and tear' and to replace worn bearings - Seal up gaps in outside wall to prevent noise escaping
15	<p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. 	CC	<p>The operator has provided information to support compliance with BATc 15. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 15.</p> <p>An odour management plan (OMP) was requested in the previous permit (A001) this has since been submitted and accepted by the environment agency.</p>

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

Updating permit during permit review consolidation

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

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

Capacity Threshold

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

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

The Operator has completed a H1 assessment of emissions for typical figures of production at the time of permitting. The Operator’s stated production capacity is 305t/d.

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

Emissions to Air

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

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

Implementing the requirements of the Medium Combustion Plant Directive

Existing small combustion plant (<1MW)

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

The Operator provided the information in the table(s) below:

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	Boiler 1 – SB4B Steam Boiler Boiler 2 – SB5B Steam Boiler Boiler 3 – SB2C Steam Boiler Combined thermal input of 750KW
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boilers
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Boiler 1 – 100% Natural Gas Boiler 2 – 100% Natural Gas Boiler 3 – 100% 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.	Boiler 1 – 1997 Boiler 2 – 1999 Boiler 3 – 1997

As the boilers on site are <1MWth the medium combustion plant directive does not apply and as such no emission limits or monitoring have been included in the permit.

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 03022023-V002 - Site Condition Report] - resubmitted as part of the Reg61 response. 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 confirmed there has been no change in the hazardous substances used, their capability of causing pollution and/or the pollution prevention measures at the installation since the risk assessment was submitted on 03/02/2023 as part of the Reg61 response. Consequently, we are satisfied there has been no change to the assessment of risk for hazardous substances.

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.

We consider holding no climate change adaptation plan to be appropriate for this installation.

Containment

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

The Operator provided of all tanks;

- Tank reference/name
- Contents details
- 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 been superseded or marked as complete and removed from the permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IC1	The operator shall audit, update and implement the site Environment Management System (EMS) and make available for inspection by the Environment Agency all documents and procedures which form part of the EMS. The EMS shall be updated in line with the requirements set out in Part 1 of How to comply with your environmental permit and address any training requirements associated with compliance with the EPR Permit. The EMS shall also incorporate accident management considerations from Section 1.1 of the additional guidance for the Food and Drink Sector (EPR 6.10). The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.
IC2	The operator shall carry out an assessment of surfacing, containment measures and subsurface structures and their potential to cause fugitive emissions to surface water and groundwater. The operator shall submit a written report to the Environment Agency following this review. The report shall take into account the requirements in 'How to comply with your environmental permit' for subsurface structures (including the fat traps), sumps, bunds & storage areas (page 28+) and surfaces on your site (page 59+) and appropriate measures for their management. Where improvements can be made, the report shall include timescales for agreement with the Environment Agency. The report shall also include a drainage and surfacing plan, with any updates as necessary. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the report.
IC3	The operator shall develop an odour management plan (OMP) in line with the Environment Agency's Horizontal Guidance H4 Odour Management with particular regard to Appendix 4. The OMP shall include detail and commitments on: the design and engineering of any odour abatement; operational procedures related to odorous emissions; odour monitoring; and maintenance and contingency plans. The operator shall implement the approved OMP from the date of approval by the Environment Agency. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the OMP.
IC4	The operator shall conduct a noise monitoring survey (in line with current Environment Agency guidance) to quantify the noise on site and, if necessary, identify additional noise abatement or reduction measures to ensure noise levels do not cause pollution outside the site boundary. The operator shall provide a report to the Environment Agency detailing noise survey results and include a plan for the implementation of any recommendations made as a result of the noise survey. The operator must implement the plan as agreed, and from the date stipulated by the Environment Agency. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the report.

IC5	The operator shall develop a noise management plan (NMP) in line with the Environment Agency's Horizontal Guidance H3 Part 2 Noise Assessment and Control with particular regard to Appendix 4. The operator shall implement the approved NMP from the date of approval by the Environment Agency. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the NMP.
IC6	<p>The operator shall undertake a programme of stack emissions monitoring in line with the Environment Agency's monitoring guidance M1 and M2 (having first agreed the methodology with the Environment Agency). This shall address all emission points from:</p> <ul style="list-style-type: none"> • Combustion activities (including the new steam generators) to establish the normal and maximum likely concentration of oxides of nitrogen. • Flour silos to establish the normal and maximum likely concentration of particulate matter. <p>Once the monitoring data has been collected, the operator shall complete the H1 risk assessment for emissions to air (Annex F) and submit a written report to the Environment Agency containing the monitoring results, assessment and conclusions. Where improvements are required, the report shall include timescales for agreement with the Environment Agency. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the report.</p>
IC7	The operator shall submit a written report to the Environment Agency containing the results of a review of their measures to prevent accidental discharges from overloading or damaging the effluent treatment plant (ETP). This shall include consideration of the provision of a diversion tank, or an explanation of the equivalent measures that will be used. The report should also consider the introduction of monitoring of the effluent load (COD) and volume following treatment at the ETP, and the installation of measures to detect variation in effluent volume and composition from each of the process areas upstream of the ETP. Where improvements can be made, the report shall include timescales for agreement with the Environment Agency. The notification requirements of condition 2.4.2 shall be deemed to have been complied with on submission of the report.
IC8	The operator shall complete a water efficiency audit including reference to the requirements set out in guidance note EPR 6.10 and consideration of the potential for re-use of treated effluent within the process and sub-metering of water use. Upon completion of the audit a summary of the document shall be submitted to the Environment Agency in writing.
IC9	The operator shall carry out an energy efficiency audit including reference to the requirements set out in guidance note EPR 6.10 and a review of the potential for heat recovery from equipment on site. Upon completion of the audit a summary of the document shall be submitted to the Environment Agency in writing.
IC10	The operator shall complete a waste minimisation audit including reference to the requirements set out in guidance note EPR 6.10 and the disposal method for effluent sludge and drummed effluent waste. Upon completion of the audit a summary of the document shall be submitted to the Environment Agency in writing.

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
IC11	<p>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:</p> <ul style="list-style-type: none"> • Methodology applied for achieving BAT • Demonstrating that BAT has been achieved. <p>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.</p>	<p>3 months from the issuing of the permit variation or as otherwise agreed by the Environment Agency.</p>