

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/CP3105BD
The Operator is: Creative Foods Europe Holdings Limited
The Installation is: Burton Plant
This Variation Notice number is: EPR/CP3105BD/V003

What this document is about

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

We have reviewed the permit for this installation against the BAT Conclusions for the Food, Drink and Milk Industries published on 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 23/01/2023.

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 have no reason to consider that the Operator will not be able to comply with the techniques and standards described in the BAT Conclusions.

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 further information requests on 07/02/2024 and 16/04/2024. A copy of each further information requests 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	<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 has an EMS which covers all the topics set out in BATc 1. This EMS is not accredited to ISO14001 however, upon review we agree that the EMS is written to ISO14001 standards.</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"> • Human machine interface (HMI) screens are utilised to display the process for waste water treatment techniques as well as dissolved air flotation (DAF) schematics • Carbon desktop meters the water going in and the effluent treatment plant (ETP) meters water out • Energy usage and generated waste streams data is captured on a monthly basis • Real time site monitoring software in use monitoring gas, electric and water metering <p>The Operator has an EMS which covers all the topics set out in BATc 2. This EMS is not</p>

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			accredited to ISO14001 however, upon review we agree that the EMS is written to ISO14001 standards.
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> <p>The Operator monitors waste water and records values for flow, pH, and temperature daily. The sewerage authority, Severn Trent Water inspects the chemical oxygen demand (COD) weekly with additional monitoring parameters set by the sewer authority.</p>
4	<p>Monitoring emissions to water to the required frequencies and standards.</p> <p>BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.</p>	NA	<p>We are satisfied that BATc 4 is not applicable to this installation.</p> <p>BATc 4 is applicable only to installations discharging process effluent to water and this site discharges only to sewer under consent therefore, BATc 4 is not applicable.</p>
5	<p>Monitoring channelled emissions to air to the required frequencies and standards.</p> <p>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 applicable to installations where dust emissions from processes such as drying, cooling, grinding, or milling are used.</p> <p>BATc 5 sets out air emissions monitoring requirements applicable to specific FDM sub-sectors. None of these monitoring requirements are applicable to this site as the activities undertaken (ready meal</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
			manufacture) are not specified in the sector and specific processes set out in BATc 5.
6	<p>Energy Efficiency</p> <p>In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the common techniques listed in technique 6b within the table in the BATc.</p>	CC	<p>The Operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 6.</p> <p>The Operator has an energy efficiency plan in place which sets out targets for reduction of heat recovery from CHP into hot water systems, leak survey and steam trap survey.</p> <p>The Operator is currently using the following techniques:</p> <ul style="list-style-type: none"> • Burner regulation and control - thermostats are set to maintain the required temperature appropriate to the activities performed in each operational area. Heating and cooling systems are controlled through the use of time switches and/or occupancy sensors. • Energy efficient motors - Minimise energy losses by repairing faulty motors. Regularly checking the voltage, temperature, vibration, harmonic distortion and power factor. • Lighting - Lighting levels are set to the level appropriate to the tasks undertaken in each operational area. • Process control systems - Self-closing doors to chiller and freezer area to help maintain temperature and prevent energy losses. • Reducing compressed air system leak – Off when not in use, regular checks,

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>isolating redundant pipes, efficient nozzles, avoid use for cleaning and ventilation.</p> <ul style="list-style-type: none"> Reducing heat losses by insulation – Insulated hot water systems and pipes.
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 (b) Optimisation of water flow (c) Optimisation of water nozzles and hoses (d) Segregation of water streams</p> <p>Techniques related to cleaning operations:</p> <p>(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</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 is currently not designed with water recycling and/or reuse at present however, the operator is actively investigating the re-use of grey water to be reintroduced into cleaning and ETP processes with internal deadlines set for waste mitigation and waste water reuse plans.</p> <p>The Operator is using the following techniques:</p> <p>(b) Optimisation of Water Flow – Through use of live monitoring software (c) Optimisation of water nozzles and hoses (g) High-pressure cleaning (i) Low-pressure foam and gel cleaning</p>
8	<p>Prevent or reduce the use of harmful substances</p> <p>In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.</p> <p>(a) Proper selection of cleaning chemicals and/or disinfectants (b) Reuse of cleaning chemicals in cleaning-in-place (CIP) (c) Dry cleaning</p>	CC	<p>The Operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 8.</p>

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
	(d) Optimised design and construction of equipment and process areas		<p>The Operator employs a dedicated cleaning team with Control of Substances Hazardous to Health Regulations (COSHH) approval process in place. The Operator is planning to implement non-rinse sanitisers for use throughout the site.</p> <p>The Operator is using the following techniques:</p> <p>(a) Proper selection of cleaning chemicals and disinfectants</p> <p>(c) Dry cleaning</p>
9	<p>Refrigerants</p> <p>In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.</p>	CC	<p>The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.</p> <p>The operator provided details of all the refrigerants used on. All refrigerants are selected on their global warming potential (GWP). Currently the installation uses the below refrigerants in their production process:</p> <ul style="list-style-type: none"> • R744 – For spiral chiller to freeze product with a GWP of 1 • R717 – For chilling glycol/water mix with a GWP of 0 • R718 – Glycol used in cooling vessel jackers and plate heat exchanges with a GWP of 0
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</p> <p>(b) Use of residues</p> <p>(c) Separation of residues</p> <p>(d) Recovery and reuse of residues from the pasteuriser</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>

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) Phosphorus recovery as struvite (f) Use of waste water for land spreading		The Operator is using the following techniques: b) Use of residues – Meat and meat free sludge from the effluent plant is processed by a third party and turned into product. c) Separation of residues – Card, metal plastic and wood waste are segregated with recycling of these being utilised.
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. The site's waste water is processed in the on-site effluent treatment plant. The Dissolved air flotation (DAF) balance tank stores excess waste water not discharged to sewer. The DAF balance tank has a capacity of 573m ³ which is 110% bunded and electronically monitored daily. In addition, spill kits are located around the external areas of the site. There are sewer and surface water drains both within and surrounding the site to prevent surface water contamination. Spillages within the site can be intercepted and contained before draining to the ETP.
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	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.

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) 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) Nitrification and/or denitrification (f) Partial nitrification - 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		<p>The ETP discharges between 200m³ and 500m³ process effluent per 24 hours depending on production volume. There is a consent limit with the sewer authority, Severn Trent Water of 1100m³ per day. There are physical separators such as screens in use with DAF balance tanks to store effluent.. The ETP drain has an inflatable bladder which is activated by pH and turbidity sensors which are serviced every 6 months by a competent 3rd party (Darcy).</p> <p>All effluent is then discharged to sewer under consent from Severn Trent Water for further treatment with final discharge to the river Trent.</p>										
12	<p>Emissions to water – treatment BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body</p> <table border="1" data-bbox="309 991 1234 1190"> <thead> <tr> <th>Parameter</th> <th>BAT-AEL (°) (°) (daily average)</th> </tr> </thead> <tbody> <tr> <td>Chemical oxygen demand (COD) (°) (°)</td> <td>25-100 mg/l (°)</td> </tr> <tr> <td>Total suspended solids (TSS)</td> <td>4-50 mg/l (°)</td> </tr> <tr> <td>Total nitrogen (TN)</td> <td>2-20 mg/l (°) (°)</td> </tr> <tr> <td>Total phosphorus (TP)</td> <td>0,2-2 mg/l (°)</td> </tr> </tbody> </table>	Parameter	BAT-AEL (°) (°) (daily average)	Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)	Total suspended solids (TSS)	4-50 mg/l (°)	Total nitrogen (TN)	2-20 mg/l (°) (°)	Total phosphorus (TP)	0,2-2 mg/l (°)	NA	<p>We are satisfied that the BAT-AELs in relation to BATc 12 are not applicable to this installation.</p> <p>The BAT-AELs are applied to process effluent discharged to water. This site does not have such discharges, all effluent being sent to sewer under consent therefore, the BAT-AELs are not applicable.</p>
Parameter	BAT-AEL (°) (°) (daily average)												
Chemical oxygen demand (COD) (°) (°)	25-100 mg/l (°)												
Total suspended solids (TSS)	4-50 mg/l (°)												
Total nitrogen (TN)	2-20 mg/l (°) (°)												
Total phosphorus (TP)	0,2-2 mg/l (°)												
13	<p>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; 	NA	<p>We are satisfied that BATc 13 is not applicable to this installation.</p> <p>The site was screened and was required to submit a noise impact assessment (NIA) due to sensitive receptors close to the installation. The assessment found the installation's noise</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
	<ul style="list-style-type: none"> - 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. 		<p>impact to be low and a noise management plan (NMP) was not required. There have been no substantiated noise complaints for this installation.</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> <ul 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>The Operator has completed a NIA for this installation in which the installation's noise impact was assessed as low.</p> <p>The Operator is using the following techniques:</p> <ul style="list-style-type: none"> (a) Appropriate location of equipment and buildings – All production equipment is located inside buildings and no external equipment stored near sensitive receptors. (b) Operational measures – Ground maintenance on roads to reduce noises produced from receiving and exporting delivers as well as on-site forklift logistics. (e) Noise abatement – Use of forklifts and deliveries restricted outside of sociable hours.
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. 	CC	<p>The Operator has provided information to support compliance with BATc 15. We have assessed the information provided and we are satisfied that the Operator has demonstrated compliance with BATc 15.</p> <p>The Operator submitted an odour management plan (OMP) on 09/01/2020 which</p>

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	<ul style="list-style-type: none"> - 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. 		<p>was formally approved by the Environment agency during determination for variation V002.</p> <p>The installation is within an Air Quality Management Zone for Nitrogen dioxide.</p> <p>Production at the installation, by the previous Operator, ceased in September 2019.</p> <p>Previous to this, the site did not receive an odour complaints in six years, which was last received in September 2013. There has been no new complaints received since the current Operator has taken over operation of the installation.</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.

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

Emissions to Air

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

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

Implementing the requirements of the Medium Combustion Plant Directive

Existing Medium Combustion Plant (1MW-50MW)

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:

Combined heat and power (CHP) engines

1. Rated thermal input (MW) of the medium combustion plant.	1.877 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP – Gas combustion
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural gas (100%)
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	2018

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	Boiler 1 – 5.7 MWth	Boiler 2 – 5.7 MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Boiler	Boiler
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural gas (100%)	Natural gas (100%)
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	1998	1999

We have reviewed the information provided and we consider that the boiler 1 and 2 qualify as “existing” medium combustion plant. The CHP engine was permitted as “new” under previous permit variation.

For existing medium combustion plant with a rated thermal input greater than 5 MW, the emission limit values set out in tables 2 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2025.

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.

We have retained the previous emission limits values and monitoring requirements for the CHP as per variation V002.

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 risk assessment which includes a description of the condition of the site and a consideration of the possibility of soil and groundwater contamination at the installation. No site baseline condition was included in the submission.

We have assessed the risk assessment in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive – Operational instruction 233_06 [*Assessing application site condition reports and surrender site condition reports submitted under the Environmental Permitting regime*]. We consider the risk assessment is not satisfactory as it does not adequately describe the current condition of the site.

We have included an Improvement condition in the permit IC12 which requires the Operator to submit an updated site condition report which includes baseline soil and groundwater data. See Improvement conditions in Annex 3 of this decision document.

Hazardous Substances

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

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

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

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

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

Climate Change Adaptation

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

The Operator has identified the installation as likely to be or has been affected by 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 IC14 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 applicable.

The Operator provided details of all tanks;

- Tank reference/name
- Contents
- Capacity (litres)
- Location
- Construction material(s) of each tank
- The bunding specification including
 - Whether the tank is banded
 - 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 banded areas
- Tank filling/emptying mitigation measures (drips/splashes)
- Leak detection measures
- Details of when last bund integrity test was carried out
- Maintenance measures in place for tank and bund (inspections)
- How the bund is emptied
- Details of tertiary containment

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

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

Annex 3: Improvement Conditions

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

Previous improvement conditions marked as complete in the previous permit.

Superseded Improvement Conditions – Removed from permit as marked as “complete”	
Reference	Improvement Condition
IC1	The Operator shall submit a report detailing proposed methods for gathering monitoring data for NOx, SOx and CO for the emissions from the stacks of the two steam raising boilers (release points A1 and A2), the Echo Ovens (release points A6 and A7) and the Rack Oven (release point A8). The report shall take into account the requirements of the Agency Technical Guidance Notes M1 July 2002 version 2 and M2 October 2004 version 3. The Operator shall undertake a monitoring exercise following the monitoring programme approved by the Agency and shall submit a written report summarising the results to the Agency.
IC2	The Operator shall submit a H1 assessment based on the results of the monitoring required by IC1.
IC3	The Operator shall carry out an assessment of the options available for monitoring emissions to sewer. The assessment will take into account the requirements of Section 2.10 of the Agency Guidance Note IPPC S6.10 August 2003. A written report summarising the findings shall be submitted to the Agency including a timescale agreed with the Agency for the implementation of any improvements.
IC4	The Operator shall assess the efficiency of the primary effluent treatment system, taking into account the requirements of Section 2.2.2 of the Agency Guidance Note IPPC S6.10 August 2003. A written report summarising the findings shall be submitted to the Agency along with a timetable for any improvements identified.
IC5	The Operator shall undertake an assessment of the surfacing and containment measures on site. The assessment will take into account the requirements of Section 2.2.5 of the Agency Guidance Note IPPC S6.10 August 2003. A written report summarising the findings and a timescale for implementation of any improvements shall be submitted to and agreed with the Agency.
IC6	The Operator shall carry out an assessment of the options available for dealing with process wastes. In accordance with Section 2.6 of the Agency Guidance Note IPPC S6.10 August 2003. A written report summarising the findings shall be submitted to the Agency along with a timetable for implementing improvements and this shall be agreed in writing with the Agency prior to implementation.
IC7	The Operator shall submit a comprehensive noise assessment by an experienced and suitably qualified person (i.e.: a noise consultant with an appropriate qualification accredited by the Institute of Acoustics).

	<p>In accordance with the procedures given in BS4142:1997 (rating industrial noise affecting mixed residential and industrial areas) and BS7445:2003 (description and measurement of environmental noise). Any noise source(s) identified as exhibiting tonal contributions shall also be quantified by means of frequency analysis. The report shall quantify and predictions relating to the likelihood of the decay of sound associated with increased distance from the installation boundary. Noise attenuation attributed to the intervention of suitable barrier(s). The cumulative effect of different items of plant and equipment working concurrently. The report shall also draw comparisons with the background levels in the locality and any potential impact that the installation is likely to have upon identified sensitive receptors.</p> <p>On completion of the assessment a copy of the survey shall be submitted to the Agency in the form of a report with an interpretation of the results and conclusions drawn. Where specific recommendations are made in the report to pursue improved noise attenuation measures and associated management/inspection/monitoring/maintenance regimes, a suitable timescale for implementation and periodic review shall be included. Such improved noise attenuation measures and regimes shall be demonstrated to be compliant with the requirements of BAT for this type of installation and will require the written agreement of the Agency prior to adoption.</p>
IC8	The Operator shall produce an Energy Efficiency Plan having regard to the Agency Guidance Note IPPC S6.10 August 2003 Section 2.7.2. This plan shall be submitted to the Agency in writing.
IC9	The Operator shall develop and implement a documented system of environmental management techniques having regard to the Agency Guidance Note IPPC S6.10 August 2003 Section 2.3.
IC10	The Operator shall develop a Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S6.10 August 2003. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.
IC11	The automatic surface water shutoff valve detailed in document ref RA-22110-20-123 Rev B, July 2020 shall be installed and written confirmation shall be submitted to the Agency to confirm it is operational and working to the parameters set out in this document.

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
IC12	The Operator shall produce a Site Condition Report (SCR) in line with our H5 Guidance. The report shall contain the information necessary to determine the state of soil and groundwater, and ensure this is maintained throughout the life of the permit by using the results to better inform the SPMP. The report shall be submitted to the Environment Agency for review.	12 months from permit issue 22/05/2025
IC13	The Operator shall produce a monitoring plan detailing how the management of relevant hazardous substances which did not screen out as low risk, based on the RHS baseline assessment, will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval. The plan shall be implemented in accordance with the Environment Agency's written approval, including timescales to undertake any infrastructure improvements.	12 months from permit issue 22/05/2025
IC14	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: <ul style="list-style-type: none"> • 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. The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.	12 months from permit issue 22/05/2025

Annex 4: Pre-operational Conditions

Superseded pre-operational measures – Removed from permit as marked as “complete”.	
Reference	Pre-operational measures
PO1	Prior to the commencement of operations on site, a portable drain bladder shall be installed as a transitional measure prior to completion of improvement condition no.11 in Table S1.3. The Operator shall submit written confirmation that these transitional measures have been installed are working to prevent any contamination of surface water.