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/BO7830IF

The Operator is: PLADIS (UK) Limited
The Installation is: Carlisle Biscuit Factory
This Variation Notice number is: EPR/BO7830IF/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.

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.

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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

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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 04/10/2022 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 03/02/2023.

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

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Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 9. The operator does not currently comply with the requirements of BATc 9. In relation to this BAT Conclusion, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Conditions IC10 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

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 request on 31/01/2024 relating to BATc6, BATc9, BATc14, Site Plan, and Hazardous Substances, Containment, Air Emission Points, Site Plan, and Water Emission. A copy of the further information request was placed on our public register.

3 The legal framework

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

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

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

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

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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-AELs):

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

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BATC No.	Summary of BAT Conclusion requirement for Food, Drink and Milk Industries	Status NA/ CC / FC / NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	GENERAL BAT CONCLUSIONS (BAT 1-15)		
1	Environmental Management System - Improve overall environmental performance. Implement an EMS that incorporates all the features as described within BATc 1.	СС	The operator has provided information to support compliance with BATc 1. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 1.
			The operator has an EMS externally accredited to the ISO14001 standard.
2	EMS Inventory of inputs & outputs. Increase resource efficiency and reduce emissions. Establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all of the features as detailed within the BATCs.	СС	The operator has provided information to support compliance with BATc 2. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 2. The operator has an EMS externally accredited to the ISO14001 standard.
3	Monitoring key process parameters at key locations for emissions to water. For relevant emissions to water as identified by the inventory of waste water streams (see BAT 2), BAT is to monitor key process parameters (e.g. continuous monitoring of waste water flow, pH and temperature) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	СС	The operator has provided information to support compliance with BATc 3. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 3. All waste water discharges only to sewer. Monitored at outlet point on DAF Plant by United Utilities using the following parameters (pH, C.O.D (settled), Separable Oil & Grease)
4	Monitoring emissions to water to the required frequencies and standards.	CCN/A	

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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
	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.		BATc 4 applies in the case of direct discharge of effluent to a water body. All process effluent from the site is discharged to sewer. We are therefore satisfied that BATc 4 is not applicable for this site.
5	Monitoring channelled emissions to air to the required frequencies and standards. BAT is to monitor channelled emissions to air with at least the frequency given and in accordance with EN standards.	N/A	The operator has provided information to support compliance with BATc 5. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 5. Bakeries / confectionary do not have BAT AELs conclusions for emissions to air. Site air emissions were tested in 2006 as part of the permit application, burners and boiler emissions are also tested periodically as part of routine maintenance. 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 (biscuit manufacture) are not specified in the sector and specific processes set out in BATc 5. We are therefore satisfied that BATc 5 is not applicable to this site.
6	Energy Efficiency In order to increase energy efficiency, BAT is to use an energy efficiency plan (BAT 6a) and an appropriate combination of the	сс	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.

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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
	common techniques listed in technique 6b within the table in the BATc.		
			The operator has an energy efficiency which incorporates an appropriate combination of techniques to increase energy efficiency such as heat recovery, heat pump, Solar PV, oven optimisation, insulation etc.
7	Water and wastewater minimisation	СС	The operator has provided information to support compliance
	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.		with BATc 7. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 7.
	(a) water recycling and/or reuse		
	(b) Optimisation of water flow (c) Optimisation of water nozzles and hoses		Operator uses 7a and a combination of b to k to meet requirements of BATc7
	(d) Segregation of water streamsTechniques related to cleaning operations:(e) Dry cleaning(f) Pigging system for pipes(g) High-pressure cleaning		Dry Cleaning is implemented in preference to wet cleaning Removal of un-necessary hoses Automated / monitored blow down mechanisms on boilers to ensure only occurs when required to optimise system Dupgrade of steam traps to minimise un-necessary steam loses. The following water recycling / re-use initiatives have been applied
	(h) Optimisation of chemical dosing and water use in cleaning-in- place (CIP)		by the site 1) The re-circulation of water in mixer jackets
	(i) Low-pressure foam and/or gel cleaning		2) Condensate return system on steam boilers to allow recovery of
	(j) Optimised design and construction of equipment and process areas		water from steam 3) Re-circulation of water in tray wash
	(k) Cleaning of equipment as soon as possible		
8	Prevent or reduce the use of harmful substances	СС	The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we

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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 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		are satisfied that the operator has demonstrated compliance with BATc 8. The operator uses SEVRON system where all chemicals need to be approved by management before use - procedures are in place to ensure no chemicals harmful to the environment are used. Optimisation of Chemical usage - Chemicals are reused in washers (tray wash)
9	Refrigerants In order to prevent emissions of ozone-depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential.	FC	The operator has provided information to support compliance with BATc 9 We have assessed the information provided. We are not satisfied that the operator has demonstrated compliance with BATc 9. Operator has some refrigerators with ozone depletion potential. We consider that the operator will be future compliant with BATc 9. Improvement condition IC10 has been included in the permit to achieve compliance (see Annex 3).
10	Resource efficiency In order to increase resource efficiency, BAT is to use one or a combination of the techniques given below: (a) Anaerobic digestion (b) Use of residues (c) Separation of residues (d) Recovery and reuse of residues from the pasteuriser (e) Phosphorus recovery as struvite (f) Use of waste water for land spreading	CC	The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10. The site follows a strict hierarchy of waste, for food stuffs, staff shop (open to the public), company shop, then animal feed. All other wastes are recycled were possible with waste to energy being the last option - no waste goes to landfill. Waste control is handled by third party contractors.

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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
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.	СС	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 Operator uses bunded effluent plant with buffer Storage on site 50 cubic metre capacity.
12	Emissions to water – treatment	CC	The operator has provided information to support compliance
	In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.		with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance
	Preliminary, primary and general treatment		with BATc 12.
	(a) Equalisation		
	(b) Neutralisation		On-site DAF Plant with balancing and pH correction which
	(c) Physical separate (eg screens, sieves, primary settlement tanks etc)		discharges to United Utilities sewer - no direct emissions to surface water
	Aerobic and/or anaerobic treatment (secondary treatment)		water
	(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)		
	(e) Nitrification and/or denitrification		
	(f) Partial nitration - anaerobic ammonium oxidation		
	Phosphorus recovery and/or removal		
	(g) Phosphorus recovery as struvite		
	(h) Precipitation		
	(i) Enhanced biological phosphorus removal		
	Final solids removal		
	(j) Coagulation and flocculation		

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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
	(k) Sedimentation(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)		
	(m) Flotation		
13	Noise management plan	CC	The operator has provided information to support compliance
	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:		with BATc 13. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 13.
	- a protocol containing actions and timelines;		Noise management plan in place following Environmental Noise
	- a protocol for conducting noise emissions monitoring;		Survey undertaken in September 2020. No history of formal noise complaints being received. Noise Abatement has been added to
	a protocol for response to identified hoise events, eg complaints,	external roof fans. The site also has restrictions on no tanker	
	 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. 		loading before 6:00am or after 9:30pm
14	Noise management	СС	The operator has provided information to support compliance with
	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.		BATc 14. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 14.
	(a) Appropriate location of equipment and buildings	Operator ensures regular external assessments undertaken to	
	(b) Operational measures		proactively identify noise related issues. Consideration always
	(c) Low-noise equipment		given to low noise equipment, appropriate noise abatement techniques for new projects or major changes
	(d) Noise control equipment		in the state of th
	(e) Noise abatement		

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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
15	Odour Management	NA	We are satisfied that BATc 15 is not applicable to this Installation.
	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:		BAT 15 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated, or if forms part of an existing permit requirement.
	- a protocol containing actions and timelines;		BAT15 does not form part of the existing permit requirement and
	- a protocol for conducting odour monitoring.		there is no recent history of odour complaints against the site
	- a protocol for response to identified odour incidents eg complaints;		therefore we do not require an odour management plan for the site.
	- 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.		

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

Updating permit during permit review consolidation

- Activity name
- Introductory note (updated)
 - Operator has changed their name from United Biscuits UK Limited to PLADIS UK Limited as of December 2023 and this is now being process as part of this permit review.
- Site plan
- Table S1.1 overhaul
 - Activity Reference (AR) renumbering
 - Updated listed activities new Scheduled activity Section 5.4 Part A1 (a) (ii) added for the ETP
 - Addition of production capacity
 - o 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 H1 assessment is not valid for the maximum capacity stated within the permit or if production is now higher. We have included an improvement condition within the permit IC11 which requires the operator to revisit their H1 risk assessment of water emissions at the capacity limit figure that is now stated 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.

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

<u>Implementing the requirements of the Medium Combustion Plant Directive</u>
We asked the Operator to provide information on all combustion plant on site in the Regulation 61 Notice as follows:

- Number of combustion plant (CHP engines, back-up generators, boilers);
- Size of combustion plant rated thermal input (MWth)
- Date each combustion plant came into operation

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

Combined heat and power (CHP) engines

Rated thermal input (MW) of the medium combustion plant.	2.98MW
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Natural gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	June 2017

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	4.4MW	5.5MW
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	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.	Nov 1998	June 2005

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

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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.

For existing MCP with a rated thermal input of less than or equal to 5 MW, the emission limit values set out in tables 1 and 3 of Part 1 of Annex II MCPD shall apply from 1 January 2030.

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

<u>Emissions to Water and implementing the requirements of the Water</u> 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 during the original application received on 24/03/2005. The site condition report included a report on the baseline conditions

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as required by Article 22. We reviewed that report and considered that it adequately described the condition of the soil and groundwater at that time.

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

Hazardous Substances

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

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

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

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

The operator has provided a monitoring plan for review, listing the relevant hazardous substances and the current/proposed monitoring to take place. This monitoring plan has been incorporated within table S1.2 Operating Techniques of the Permit.

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 flooding, which we consider to be a severe weather event.

The operator has submitted a climate change adaptation plan, which considers, as a minimum the impact of severe weather on the operations within the installation.

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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 appliable.

The Operator provided details of all tanks;

- Tank reference/name
- Contents
- Capacity (litres)
- Location
- Construction material(s) of each tank
- The bunding specification including
 - Whether the tank is bunded
 - If the bund is shared with other tanks
 - The capacity of the bund
 - The bund capacity as % of tank capacity
 - Construction material of the bund
 - Whether the bund has a drain point
 - Whether any pipes penetrate the bund wall
- Details of overfill prevention
- Drainage arrangements outside of bunded areas
- Tank filling/emptying mitigation measures (drips/splashes)
- Leak detection measures
- Details of when last bund integrity test was carried out
- Maintenance measures in place for tank and bund (inspections)
- How the bund is emptied
- Details of tertiary containment

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

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

Annex 3: Improvement Conditions

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

The following improvement conditions have been superseded or marked as complete and removed from the permit.

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Superseded	Improvement Conditions
IC1	The Operator shall submit a report to the Agency detailing the proposals for installing primary effluent treatment within the Installation - having regard to sections 2.2 and 2.4.3 of Agency Guidance Note IPPC S6.10 "Guidance for the Food and Drink Sector". This report shall include but not be limited to:- Feasibility study of the use of membrane technology Reduction of COD load in effluent discharged Reduction in Suspended Solids Reduction in separable oils and greases. The Operator should also include a review of the treatment options available - together with their associated benefits. Where the Operator has identified a proposal within the report, which is regarded as BAT for the Installation, the Operator shall include a timescale for the implementation and commissioning of such a facility.
IC2	The Operator shall install and commission an on-site primary effluent treatment facility (as specified in response to improvement condition IC1).
IC3	The Operator shall carry out a noise survey of fixed plant and equipment and external operations on site in accordance with the assessment procedure given in BS4142: 1997 Method for Rating industrial noise affecting mixed residential and industrial areas. The survey shall have regard to, in particular, the night-time period 11pm – 7am. The Operator shall also have regard to the Environment Agency Horizontal Guidance note H3 (Parts 1 and 2).
	A written report on the results, with interpretation, conclusion and any proposed actions with time scales for implementation, shall be submitted in writing to the Agency.
IC4	The Operator shall develop a Noise Management Plan, using information obtained from the completion of Improvement Condition IC3 to ensure that there is no reasonable cause for annoyance for neighbouring sensitive receptors. The Operator shall confirm completion of the plan, and provided a summary
	report outlining the details of the plan.
IC5	The Operator shall undertake monitoring for releases to air from emission points A1 – A11 as listed in table 2.2.1, having regard to Section 2.10 of Agency Guidance Note S6.10. A report shall be submitted to the Agency detailing the monitoring undertaken and the results obtained, together with an impact assessment (H1) for emissions to air. The Operator shall also summarise a comparison between the results obtained and those provided within the H1 assessment as submitted with the application. The report shall also contain any proposals for improvements, having regard
	to Section 2.2.1 of Agency Guidance Note IPPC S6.10, together with a timescale for implementation.
IC6	The Operator shall submit a Site Closure Plan with regards to the requirements set out in section 2.11 of Agency Guidance Note IPPC S6.10.
IC7	The Operator shall review the refrigerants utilised at the Installation. This review will take into account the potential environmental impact of the refrigerant, especially HFC's and HCFC's, and the use of alternative less environmentally hazardous materials.
	A written report summarising the findings, together with a timetable for any improvements identified shall be submitted to the Agency.

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IC8	The Operator shall undertake a study into the feasibility of retrofitting low NOx burners to the boilers, having regard to Section 2.2.2 of the Agency Sector Guidance Note for Combustion Activities.
	A written report summarising the findings, together with a timetable for any improvements identified shall be submitted to the Agency.
IC9	The Operator shall undertake an assessment into the containment measures on site. This shall include, but not be limited to hardstanding, kerbing, and bunding. The assessment shall take into account the requirements of section 2.2.5 of Agency Guidance Note IPPC S6.10, August 2003.
	A written report summarising the findings, together with a timetable for any improvements identified shall be submitted to the Agency.

If the consolidated permit contains existing improvement conditions that are not yet complete or the opportunity has been taken to delete completed improvement conditions then the numbering in the table below will not be consecutive as these are only the improvement conditions arising from this permit variation.

Improvement programme requirements		
Reference	Reason for inclusion	Justification of deadline
IC10	The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs. To demonstrate compliance against BAT 9, the operator shall produce a plan for the onsite refrigerant system(s) at the installation. The plan is to be assessed by the Environment Agency and shall be incorporated within the existing environmental management system. The plan should include, but not be limited to, the following: Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible. An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP. Replacement of systems containing HCFCs as soon as possible.	07/11/2024 3 months from date of issue or as agreed in writing by the Environment Agency
IC11	The operator shall review and update the H1 risk assessment for particulate emissions to air at the capacity levels stated within table S1.1 of this permit. The H1 shall be submitted to the Environment Agency for review.	07/08/2025 or other date as agreed in writing with the Environment Agency
IC12	The Operator shall provide an updated 'Site Emission Point Plan' detailing the location of the emission points as detailed in Table S3.1, S3.2 & S3.3 (Etc). The site plan shall be drawn to scale, and clearly show the site boundary.	07/09/2024 1 month from the date of issue

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