

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/BW9654IF
The Operator is: Crown Chicken Limited
The Installation is: Kenninghall Animal Feed Mill
This Variation Notice number is: EPR/BW9654IF/V005

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 04/05/2021 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.

The Regulation 61 Notice response from the Operator was received on 30/07/2021.

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.

We considered that the response did not contain sufficient information for us to commence determination of the permit review. We therefore issued a further information request to the Operator on 23/08/2022, which was requested again on 22/11/2022 but in each case, we did not receive the information requested.

On that basis, we used the information provided and our current understanding of the installation to finalise the review process.

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 does not currently comply with the requirements of BATc 13 & 14. We have therefore included Improvement Condition IC10 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered before 4 December 2023.

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 a EMS in place which meets the BAT requirements.</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 has a EMS in place which meets the BAT requirements.</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>	NA	<p>We are satisfied that this BAT requirement is not applicable on the basis of the operator does not produce significant volumes of process effluent arising from the permitted dry process.</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</p>	NA	<p>We are satisfied that this BAT requirement is not applicable on the basis of the operator does not produce significant volumes of</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
	not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.		process effluent arising from the permitted dry process.
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>	CC	<p>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.</p> <p>The operator has monitoring arrangements in place in accordance with the EN Standards.</p>
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>	FC	<p>We consider that the operator will be future compliant with BATc 6 on the basis that the operator states that this plan is currently under review and did not provide evidence of the current plan.</p> <p>Improvement condition IC10 has been included in the permit to achieve compliance (see Annex 3).</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>	FC	<p>We consider that the operator will be future compliant with BATc7 on the basis that the operator states that this is currently under review and did not provide evidence of the current techniques.</p> <p>Improvement condition IC10 has been included in the permit to achieve compliance (see Annex 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
	<p>Techniques related to cleaning operations:</p> <ul style="list-style-type: none"> (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 		
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> <ul style="list-style-type: none"> (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	<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> <p>Cleaning chemicals and disinfectants are selected to ensure the highest levels of biosecurity and hygiene are maintained, any products that are harmful to the environment are avoided where practicable.</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>	NA	<p>We are satisfied that BATc 9 is not applicable to this installation on the basis of refrigeration is not required for the permitted processes.</p>
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> <ul style="list-style-type: none"> (a) Anaerobic digestion 	CC	<p>The operator has provided some information to support compliance with BATc 8. We have assessed the information provided and we are</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
	(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		satisfied that the operator has demonstrated compliance with BATc 8 on the basis that: Animal feed production is a very recourse efficient process. Residues are re-worked into the process. The operator follows the waste hierarchy and sends effluent sludge for land spreading.
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.	NA	We are satisfied that BATc11 is not applicable for this installation. The process does not give rise to significant volumes of waste water and as such waste water buffer storage is not required. However, any uncontrolled emissions to water are prevented by effluent storage in the on-site lagoon. Lagoon level is monitored daily by engineering personnel and effluent removed on a daily basis by contractor.
12	Emissions to water – treatment In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given.	NA	We are satisfied that BATc11 is not applicable for this installation. The permitted activities do not give rise to significant volumes of process effluent
13	Noise management plan In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring;	FC	We consider that the operator will be future compliant with BATc13 on the basis that we have not received a revised NMP, reviewed by the Environment Agency. Improvement condition IC8 has been included in the permit to achieve compliance (see Annex 3).

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. 		
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 	FC	<p>We consider that the operator will be future compliant with BATc14 on the basis that the operator states that “as part of the existing noise management plan, the operator ensures that these techniques are undertaken”.</p> <p>We have not received evidence of this plan as per BATc13.</p> <p>On that basis, improvement condition IC8 has been included in the permit to achieve compliance (see Annex 3).</p>
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 e.g. 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 is in place and has recently been reviewed, although the site has not received any odour complaints to indicate that there is any odour nuisance at sensitive receptors.</p>
ANIMAL FEED BAT CONCLUSIONS (BAT 16-17)			

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															
16	<p>Energy efficiency – Green fodder only</p> <p>In order to increase energy efficiency in green fodder processing, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below.</p> <p>(a) Use of predried fodder</p> <p>(b) Recycling of waste gas from the dryer</p> <p>(c) Use of waste heat for pre-drying</p> <p>Applicable in addition to BAT6</p>	N/A	Not applicable for this site															
17	<p>Emissions to air – particulates</p> <p>In order to reduce channelled dust emissions to air, BAT is to use one of the techniques given; a. bag filter, b. cyclone.</p> <table border="1" data-bbox="277 887 1232 1129"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Specific process</th> <th rowspan="2">Unit</th> <th colspan="2">BAT-AEL (average over the sampling period)</th> </tr> <tr> <th>New plants</th> <th>Existing plants</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Dust</td> <td>Grinding</td> <td rowspan="2">mg/Nm³</td> <td><2-5</td> <td><2-10</td> </tr> <tr> <td>Pellet cooling</td> <td colspan="2"><2-20</td> </tr> </tbody> </table>	Parameter	Specific process	Unit	BAT-AEL (average over the sampling period)		New plants	Existing plants	Dust	Grinding	mg/Nm ³	<2-5	<2-10	Pellet cooling	<2-20		CC	<p>The operator has provided information to support compliance with BATc 17. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 17.</p> <p>There are no permitted emissions from grinding operations.</p> <p>For pellet coolers (A1 – A3) The operator has stated that they are currently compliant, so the BAT-AEL has been include from permit issue.</p>
Parameter	Specific process				Unit	BAT-AEL (average over the sampling period)												
		New plants	Existing plants															
Dust	Grinding	mg/Nm ³	<2-5	<2-10														
	Pellet cooling		<2-20															
Animal Feed Environmental Performance Levels																		

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	
EPL	Environmental Performance Level – Energy Consumption for Animal Feed		<p>The operator has states that they are currently compliant with a specific energy consumption of 0.083MWh/tonnes of products, which is well within the AEPL range.</p>	
	Product	Unit		Specific energy consumption (yearly average)
	Compound food	MWh/tonne of products		0.01-0.10 ⁽¹⁾⁽²⁾⁽³⁾
	Dry pet food			0.39-0.50
	Wet pet food			0.33-0.85
<p>(1) The lower end of the range can be achieved when pelleting is not applied. (2) The specific energy consumption level may not apply when fish and other aquatic animals are used as raw material. (3) The upper end of the range is 0.12 MWh/tonne of products for installations located in cold climates and/or when teat treatment is used for Salmonella decontamination.</p>				
EPL	Environmental performance level – Waste water discharge for Animal Feed		<p>The site does not produce wet pet food.</p>	
	Product	Unit		Specific waste water discharge (yearly average)
Wet pet food			m3/tonne of products	1.3-2.4

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

Updating permit during permit review consolidation

- Introductory note
- Site plan
- Table S1.1 overhaul
 - Activity Reference (AR) renumbering
 - 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.

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

The Operator did not complete the MCPD section of the Regulation 61 response but we have used the responses elsewhere and the current permit to populate this information, as specified.

Existing small combustion plant (<1MW)

The operator stated in the Air Emissions Section of the Regulation 61 response that they have an “emergency generator” on site, however this is not currently listed in the previous permit. We have assumed this is a small unit, below 1MWth.

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. We have however listed it as a DAA, with associated emission point and will require reporting of the operational hours of this plant to ensure BAT.

Existing Medium Combustion Plant (1MW-50MW)

Using the information in the current permit and some limited information from the operator, we have populated the following information regarding existing MCPD on site:

Combined heat and power (CHP) engines

1. Rated thermal input (MW) of the medium combustion plant.	2.57MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP engine
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Biogas – classed as “other gaseous fuels other than 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.	Permitted before December 2018.

Boilers

1. Rated thermal input (MW) of the medium combustion plant.	1 x 2.2 MW 1 x 2.0MW
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	2 x Boilers, run alternatively as one duty and one standby. The operator states that: <i>“The boilers are operated on a rotational basis - one week boiler 1 is on duty and boiler 2 on standby and the next week it will reverse so that boiler 2 is on duty and boiler 1 is on standby. The frequency of rotation can change to a several week rotation, but both boilers are used similarly The heat output for each boiler is almost identical at 1881 kW for serial number 23/3965 and 1880 kW for boiler serial number 23/3236”</i>
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Both fuelled on gas oil
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.	Both permitted before December 2018.

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

For existing MCPs 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.

For the CHP Plant, these have existing ELVs and these limits have been updated in accordance with the future-dated MCPD requirements (calculated/corrected at the O₂ reference conditions that apply to this particular plant, for consistency with the previous permit) or retained to ensure “no backsliding”.

Particulate Emissions

BAT-AELs are derived for those substances identified as key environmental issues during the BREF review process.

If the operator has identified current compliance against BAT-AELs we will implement the relevant emission limit value (ELV) from the date of permit issue. This is relevant for emission points A1 – A3 against BAT 17 for particulate emissions from the coolers.

We have added an improvement condition (IC11) for size fractionation of particulate emissions because a BAT-AEL applies for dust emissions to air. The justification for this IC is that there are a number of activities within the FDM sector which may result in release of particulates to air eg drying, milling and grinding. Overall there is little available information on how much fine particulates are released. This IC is a one-off exercise requiring operators to monitor and report on the fractions of fine particulate (PM₁₀ and PM_{2.5}) emissions and increase our understanding of potential health effects. Where BAT-AELs may apply to multiple emission points eg grain milling, we may accept limited representative monitoring rather than expecting them to monitor every single emission point.

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 during the original application. 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 (SPMP) was originally submitted. 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.

Underground Structures

We asked the Operator via the Regulation 61 Notice to:

- Provide details of any underground structures including;
 - Contents;
 - Capacity;
 - Construction material(s);
 - Preventative maintenance measures;
 - Leak detection;
 - Additional containment;
 - and if it is currently operational or redundant.
- and whether it currently meets the relevant standard in the Ciria “Containment systems for the prevention of pollution (C736)” report.

We reviewed the information provided by the operator and their findings. We are not satisfied that the existing site underground structure meets the standards set out in CIRIA C736.

We have set improvement conditions in the permit to address the deficiencies in the existing site underground structure (IC9). See Improvement condition(s) in Annex 3 of this decision document.

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).

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.

IC1 – IC6 were marked as complete in the previous permit.

IC7 has been marked as complete in this variation and is superseded by IC10.

Improvement programme requirements		
Reference	Requirement	Date
IC8	The Operator shall submit a revised Noise Management Plan for review by the Environment Agency. The revised plan shall have regard for the requirements of BATc13 and BATc14 of the Food, Drink and Milk Industries BAT Conclusions, and demonstrate implementation of the requirements and be produced in accordance with the Guidance "Noise and vibration management: environmental permits". The plan shall be implemented in accordance with the Environment Agency's written approval.	By 03/08/2023
IC9	The operator shall submit a written 'underground structures plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review conducted, by a competent person, in accordance with the risk assessment methodology detailed within CIRIA C736 (2014) guidance, of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored. The review shall include, but not be limited to, the following for all underground structures at the installation; <ul style="list-style-type: none"> • The physical condition of all underground structures; • The suitability of providing containment when subjected to the dynamic and static loads caused by the vessels' contents; • A preventative maintenance inspection regime. The plan must contain dates for the implementation of individual improvement measures necessary for the underground structures to adhere to the standards detailed/referenced within CIRIA C736 (2014) guidance, or equivalent. The plan shall be implemented in accordance with the Environment Agency's written approval.	By 03/05/2024
IC10	The operator shall submit a report demonstrating compliance with the Narrative BAT requirements deemed to be "future complaint" in the Regulation 61 response, for approval by Environment Agency.	By 03/12/2023

Improvement programme requirements		
Reference	Requirement	Date
	The report shall address the BAT requirements for BATc 6 and BATc 7 in the Food, Drink and Milk Industries BAT Conclusions and provide evidence of an implemented methodology to achieving BAT. Refer to BAT Conclusions for a full description of the BAT requirement.	
IC11	The Operator shall submit a written report to the Environment Agency of monitoring carried out to determine the size distribution of particulate matter in the exhaust gas emissions to air from emission point A1 – A3, identifying the fractions within the PM10 and PM2.5 ranges. The monitoring shall be carried out under representative operating conditions and shall be in accordance with EN ISO 23210 unless otherwise agreed with the Environment Agency.	By 03/05/2024