

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/BM8916ID
The Operator is: ADM Milling Limited
The Installation is: Avonmouth Mill
This Variation Notice number is: EPR/BM8916ID/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 31/01/2022 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 26/05/2022.

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

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

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

Based on our records and previous experience in the regulation of the installation we consider that the Operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusions 1, 5 and 28. The operator does not currently comply with the requirements of BATc 1, 5 and 28. In relation to this/these BAT Conclusions, the operator has committed compliance by 4 December 2023. We have therefore included Improvement Conditions IC5 and IC6 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 a further information request on 12/01/2023, requesting clarification on air emissions and an updated air emission point plan. A copy of the further information request was placed on our public register.

3 The legal framework

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

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

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

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

Annex 1: decision checklist regarding relevant BAT Conclusions

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

There are 37 BAT Conclusions.

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

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

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

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

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

NA – Not Applicable

CC – Currently Compliant

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

NC – Not Compliant

| BATC No. | Summary of BAT Conclusion requirement for Food, Drink and Milk Industries | Status NA/ CC / FC / NC | Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement |
|---|---|-------------------------------|--|
| GENERAL BAT CONCLUSIONS (BAT 1-15) | | | |
| 1 | <p>Environmental Management System - Improve overall environmental performance.</p> <p>Implement an EMS that incorporates all the features as described within BATc 1.</p> | FC | <p>The operator provided some information to support compliance with BATc1, however, some aspects they noted they were not currently achieving compliance and would be future compliant for BATc1 (ii) and (xv).</p> <p>The operator has also indicated they will be carrying out an overall review of their EMS, in 2023.</p> <p>We have included an improvement condition IC5 to ensure the relevant sections of the EMS are submitted for approval to ensure compliance against BATc1. The operator is required to complete the improvement condition and demonstrate compliance with BATc1 by the compliance date, 4 December 2023. See Annex 3.</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 which incorporates the features required to be compliant with BATc 2.</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-</p> | NA | <p>We are satisfied that BATc 3 is not applicable to this Installation.</p> <p>There are no discharges of process effluent arising from this installation. There is a minor wastewater sources from the silo compressor condensate which is discharged to the River Avon via</p> |

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| | treatment, at the inlet to the final treatment, at the point where the emission leaves the installation). | | an oil and water separator. Uncontaminated surface water runoff is also discharged to both Avonmouth Dock and the River Avon. |
| 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>There are no discharges of process effluent arising from this installation. There are minor wastewater sources from the silo compressor condensate which is discharged to the River Avon via an oil and water separator. Uncontaminated surface water runoff is also discharged to both Avonmouth Dock and the River Avon.</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> | FC | <p>Due to the large number of emission points of dust at various stages of the milling process and the relatively low environmental risk of the dust emissions the Environment Agency position is to implement a proportionate approach to monitoring. The Operator should produce a rolling monitoring procedure focusing on the principal emission points on site. This procedure should implement a monitoring protocol which should include 3 samples per annum on the key processing stages wheat cleaning, wheat milling and finished product handling.</p> <p>We have included an improvement condition IC6 to ensure that a monitoring procedure is submitted, agreed and implemented. The monitoring requirements of the BATc 5 are included, post-dated, in the permit to ensure compliance. The operator is required to complete the improvement condition and demonstrate compliance with BATc 5 by the compliance date, 4 December 2023. See Annex 3.</p> |

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| 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 management system and is externally accredited to ISO50001, and implements a combination of common techniques such as energy efficient motors and variable speed drives.</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> <ul style="list-style-type: none"> (a) water recycling and/or reuse (b) Optimisation of water flow (c) Optimisation of water nozzles and hoses (d) Segregation of water streams <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 | 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>Minimal water is used in the grain milling process on site, the only water used is for the conditioning of wheat. The water used is 100% absorbed by the wheat. The site utilises dry cleaning techniques to minimise water usage and the design of the equipment is optimised to reduce leakage and therefore reduce the amount of cleaning.</p> |

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| | (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> <p>(a) Proper selection of cleaning chemicals and/or disinfectants</p> <p>(b) Reuse of cleaning chemicals in cleaning-in-place (CIP)</p> <p>(c) Dry cleaning</p> <p>(d) Optimised design and construction of equipment and process areas</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> <p>The site carries out dry cleaning utilising vacuum systems for 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> | NA | <p>We are satisfied that BATc 9 is not applicable to this Installation.</p> <p>No refrigerants are used in the industrial 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> <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> <p>(e) Phosphorus recovery as struvite</p> <p>(f) Use of waste water for land spreading</p> | CC | <p>The operator has provided information to support compliance with BATc 10. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 10.</p> <p>The site currently recovers all of the waste/ residues created on-site either by recycling and use in animal feed. No waste is sent to landfill.</p> |
| 11 | <p>Waste water buffer storage</p> <p>In order to prevent uncontrolled emissions to water, BAT is to provide an appropriate buffer storage capacity for waste water.</p> | NA | <p>We are satisfied that BATc 11 is not applicable to this Installation.</p> |

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| | | | The site does not discharge any process effluent. No additional buffer storage is required on site. |
| 12 | <p>Emissions to water – treatment</p> <p>In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.</p> <p>Preliminary, primary and general treatment</p> <p>(a) Equalisation</p> <p>(b) Neutralisation</p> <p>(c) Physical separate (eg screens, sieves, primary settlement tanks etc)</p> <p>Aerobic and/or anaerobic treatment (secondary treatment)</p> <p>(d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)</p> <p>(e) Nitrification and/or denitrification</p> <p>(f) Partial nitrification - anaerobic ammonium oxidation</p> <p>Phosphorus recovery and/or removal</p> <p>(g) Phosphorus recovery as struvite</p> <p>(h) Precipitation</p> <p>(i) Enhanced biological phosphorus removal</p> <p>Final solids removal</p> <p>(j) Coagulation and flocculation</p> <p>(k) Sedimentation</p> <p>(l) Filtration (eg sand filtration, microfiltration, ultrafiltration)</p> <p>(m) Flotation</p> | NA | <p>We are satisfied that BATc 12 is not applicable to this Installation.</p> <p>No discharges of process effluent arising from this installation. The site treats boiler blowdown and domestic effluent via an aerobic treatment system. All minor wastewater sources from the vehicle washdown station, boiler blowdown and the lab are discharged to the River Avon under a discharge consent.</p> |

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| 13 | <p>Noise management plan</p> <p>In order to prevent or, where that is not practicable, to reduce noise emissions, BAT is to set up, implement and regularly review a noise management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting noise emissions monitoring; - a protocol for response to identified noise events, eg complaints; - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. | NA | <p>BAT 13 is only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated, or if it forms part of an existing permit requirement.</p> <p>The site has an existing noise and vibration management plan and undertakes periodic noise monitoring, however, this is integrated into their standard management procedures onsite and a separately regularly reviewed plan is not required at the site.</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>A combination of the relevant techniques are implemented at the site. The site implements operational measures such as ensuring:</p> <ul style="list-style-type: none"> • all site processes (with the exception of bulk powder intake) which generate noise are located inside buildings to reduce noise impact on sensitive receptors; • doors and windows from all production areas are kept closed as required; • a noise management plan is implemented at site to minimise effects such as, from banging of tankers. |

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|--|---|---|--|---|------|--------|------|----|---|
| 15 | <p>Odour Management</p> <p>In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements:</p> <ul style="list-style-type: none"> - a protocol containing actions and timelines; - a protocol for conducting odour monitoring. - a protocol for response to identified odour incidents eg complaints; - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. | NA | <p>BAT 15 is only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated, or if it forms part of an existing permit requirement.</p> <p>There is no existing permit requirement and the site has no recent history of odour complaints therefore an odour management plan is not required.</p> | | | | | | |
| GRAIN MILLING BAT CONCLUSION (BAT 28) | | | | | | | | | |
| 28 | <p>Emissions to air</p> <p>In order to reduce channelled dust emission to air, BAT is to use a bag filter.</p> <table border="1" data-bbox="277 1003 1068 1182"> <thead> <tr> <th data-bbox="277 1003 501 1114">Parameter</th> <th data-bbox="501 1003 734 1114">Unit</th> <th data-bbox="734 1003 1068 1114">BAT-AEL (average over the sampling period)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 1114 501 1182">Dust</td> <td data-bbox="501 1114 734 1182">mg/Nm3</td> <td data-bbox="734 1114 1068 1182"><2-5</td> </tr> </tbody> </table> | Parameter | Unit | BAT-AEL (average over the sampling period) | Dust | mg/Nm3 | <2-5 | FC | <p>All of the relevant channelled emission points to air are abated appropriately via bag filters. The operator has stated they will carry out an assessment in order to ensure appropriate monitoring is in place and to confirm they are compliant with the BAT-AELs by 2023. The previous limited monitoring conducted indicates that they are able to meet the BAT-AELs.</p> <p>There are currently no emission limit values (ELVs) in the permit for particulate emissions. We have included future dated ELVs in the permit for the emission points A2, A3, A4, A5, A6, A7, A8, A9, A10, A15, A16</p> |
| Parameter | Unit | BAT-AEL (average over the sampling period) | | | | | | | |
| Dust | mg/Nm3 | <2-5 | | | | | | | |

| 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 | | | | |
|-----------------------|--|--|---|-----------------------|-------------|----|---|
| | | | We consider that the operator will be future compliant with BATc 28. Due to the rolling programme of monitoring (IC6), we are unable to add an improvement condition for the operator to demonstrate compliance by 04/12/2023. However, we are satisfied that the BAT-AEL will be achieved and we have no evidence that a derogation is required. On that basis, compliance will be achieved through the rolling programme. | | | | |
| | Grain Milling Environmental Performance Levels | | | | | | |
| EPL | Environmental Performance Level – Energy Consumption for Grain Milling <table border="1" data-bbox="277 762 1084 895"> <thead> <tr> <th data-bbox="277 762 680 842">Unit</th> <th data-bbox="680 762 1084 842">Specific energy consumption (yearly average)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 842 680 895">MWh/tonne of products</td> <td data-bbox="680 842 1084 895">0.05 – 0.13</td> </tr> </tbody> </table> | Unit | Specific energy consumption (yearly average) | MWh/tonne of products | 0.05 – 0.13 | CC | <p>The operator has provided information to support compliance with the energy EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with the energy consumption for Grain Milling.</p> <p>The sites energy consumption for 2021 was 0.0812 MWh/t, which is within the target, reflecting the good energy management in place at this installation.</p> |
| | Unit | Specific energy consumption (yearly average) | | | | | |
| MWh/tonne of products | 0.05 – 0.13 | | | | | | |

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

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

Capacity Threshold

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

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

The Operator has completed a H1 assessment of emissions for typical figures of production at the time of permitting.

The 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.

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.

In table S3.1 emission points A12 & A13 have been merged. Emission points A17 and A18 have been removed as these emission now discharge via emission points A15 and A19. Emission point A21 – A28 have been removed as these stacks were removed in 2017.

Implementing the requirements of the Medium Combustion Plant Directive

There is a 0.1MWth LPG fired boiler on site which produces steam for the dough prover on the onsite central test bakery, the boiler has a rated thermal input less than 1 MW so would not require emission limit values or monitoring requirements as it would not fall under the Medium Combustion Plant Directive. We have not included reference to this boiler within the permit, it is not within scope for regulation as it does not serve the permitted industrial process.

Particulate Emissions

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

For emission points noted to be future complaint we would incorporate an interim ELV and monitoring requirements from the date of permit issue. This is relevant for emission points A2, A3, A4, A5, A6, A7, A8, A9, A10, A15, and A16.

We have incorporated an improvement condition (IC6) to ensure the monitoring is carried out as soon as reasonably practical prior to December 2023 for these emission points

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.

The sites boiler blowdown and domestic effluent is treated by an onsite biodigester treatment system, after which it is discharges to the River Avon. However, both the boiler blowdown and domestic effluent are not included in this permit as the boiler does not serve the permitted industrial process. These are regulated under a water discharge consent. This ensures parameters such as pH, BOD, nitrogen, and suspended solids are monitored on an annual basis.

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 [Site Report & Protection of the Site] during the original application received on 18/03/2005. 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 confirmed the original site condition report adequately describes the current condition of the soil and groundwater. Consequently, we are satisfied that the baseline conditions have not changed.

Hazardous Substances

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

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

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

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

Climate Change Adaptation

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

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

Containment

We asked the Operator via the Regulation 61 Notice to:

- Provide details of any above-ground storage or process tanks including;
 - Contents;
 - Capacity;
 - Construction material(s);
 - Preventative maintenance measures;
 - Additional containment;

We reviewed the information provided by the operator. We are satisfied that the existing site containment measures for above-ground storage or process tanks are appropriate to minimise the risk of fugitive emissions from these tanks.

Annex 3: Improvement Conditions

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

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

| Superseded Improvement Conditions | |
|--|--|
| IC1 | The Operator shall review the Accident Management Plan with regard to the requirements set out in the Sector Guidance Note IPPC S6.10, Dec. 2002, issue 1, Section S2.8 and the methods detailed therein. In particular, the plan shall consider the potential for a dust explosion in the installation. Upon completion of the plan a summary of the document shall be submitted to the Agency. |
| IC2 | The Operator shall develop a written Site Closure Plan with regards to the requirements set out Section 2.11 of the Agency Guidance Note IPPC S6.10, Dec. 2002, issue 1 and the methods detailed therein. Upon completion of the plan a summary of the document shall be submitted to the Agency. |
| IC3 | The Operator shall provide the Agency with written proposals for a programme of monitoring for particulate releases from emission points A2, A3, A4, A5, A6, A9, A10 and A19 for both continuous and non-continuous monitoring and from A2, A7, A8 for continuous monitoring. Monitoring shall be carried out to an appropriate recognised standard. The proposals shall include a justification for the frequency and method of monitoring and justification for the exclusion of monitoring of any of the emission points. |
| IC4 | The Operator shall review the requirement for surface water interceptors for discharge points W1 to W10 inclusive. The review shall provide a justification for the conclusions reached and proposed time scales for implementation. The review shall be submitted to the Agency in writing. |

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 |
| IC5 | <p>The Operator shall submit for approval updated sections of the Environment Management System (EMS), which are relevant to demonstrate compliance with BATc1 ii) and xv). The relevant sections of the EMS shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 1.</p> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p> | 04/12/2023 |
| IC6 | <p>The operator shall submit, for approval by the Environment Agency, a monitoring procedure for particulate matter emissions from principal emission points on site. The procedure must describe how the operator will implement a rolling monitoring programme which shall include, but not be limited to the following:</p> <ol style="list-style-type: none"> 1. Methodology for how representative monitoring will be carried out annually, with a minimum of 3 point sources on a rolling-basis. 2. Ensuring the key process stages, wheat cleaning, wheat milling and finished product handling including wheatfeed, are prioritised. 3. Identify any principal emission points excluded from the rolling monitoring programme and provide a justification for this. 4. Provide a commencement date for the programme which will demonstrate compliance with the permit requirements. <p>The monitoring procedure shall address the requirements of BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 5.</p> | 04/06/2023 |