# 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/AP3038EM

The Operator is: Crediton Dairy Limited

The Installation is: Crediton Milk Processing Facility

This Variation Notice number is: EPR/AP3038EM/V004

**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 24/03/2022 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 22/07/2022.

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 Conclusion 6 and 11*.* In relation to these BAT Conclusions, we do not fully agree with the Operator in respect of their current stated capability as recorded in their response to the Regulation 61 Notice. We have therefore included Improvement Condition IC 4 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusions are delivered within 3 months of the variation being issued. In addition we have included further improvement conditions (IC 5 & 6) for the Operator to complete the Relevant Hazardous Substances assessment and to carry out an assessment of the onsite containment.

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 31/01/2024, with regard to BATc 1, 2, 6, 7, 11 and 14 in addition to the completion of the climate change adaptation assessment and the assessment of the onsite containment. A copy of this further information request was placed on our public register along with the response, which was received on 29/02/2024. A further request for information was issued on the 07/03/2024 in relation to BATc’s 2, 7, 11, 14 and clarification of the energy and waste water EPLs. A copy of this further information request was placed on our public register along with the response, which was received on 29/04/2024.

**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 25 & 26 | BAT Conclusions for Ethanol Production  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 34 | BAT Conclusions for Soft Drinks and Nectar/Fruit Juice Processed from Fruit and Vegetables  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 | **Environmental Management System - Improve overall environmental performance.**  Implement an EMS that incorporates all the features as described within BATc 1. | **CC** | 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 a 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. | | **CC** | 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 stated the site maintains an inventory and tracks the usage of water, energy and raw materials composition along with waste water and gas streams via a database which is monitored by an external environmental consultant. The data is reviewed in real time with any discrepancies flagged to the site for investigation. The data is reviewed and discussed daily at a management level and discussed weekly at a director level. The site has an EMS externally accredited to the ISO 14001 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). | **CC** | 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.  The Operator has stated that the trade effluent is discharged to sewer only. Composite samples are taken on a 12 and 24 hour basis of both the crude and treated effluent with analysis for COD, pH, TSS and Phosphate. The flow is monitored continuously and the temperature and pH are tested every three hours from the final sample point prior to discharge to the foul sewer. |
| 4 | **Monitoring emissions to water to the required frequencies and standards.**  BAT is to monitor emissions to water with at least the frequency given [refer to BAT 4 table in BATc] and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. | **NA** | We are satisfied that BATc 4 is not applicable to this installation.  BATc 4 is applicable only to installations discharging process effluent to water and this site discharges only to sewer under consent therefore, BATc 4 is not applicable. |
| 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 [refer to BAT5 table in BATc] and in accordance with EN standards. | **NA** | We are satisfied that BATc 5 is not applicable to this installation.  BATc 5 is applicable only to installations where there are channelled emissions to air from the processes listed under BATc 5, such as drying, none of these processes are undertaken at the 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 common techniques listed in technique 6b within the table in the BATc. | **FC** | The operator has provided information to support compliance with BATc 6. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 6.  The Operator hasn’t provided an energy efficiency plan nor have the techniques utilised at the site to improve energy efficiency been provided.  We consider that the operator will be future compliant with BATc 6. Improvement condition IC 4 has been included in the permit to achieve compliance (see Annex 3). |
| 7 | **Water and wastewater minimisation**  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.  (a) water recycling and/or reuse  (b) Optimisation of water flow  (c) Optimisation of water nozzles and hoses  (d) Segregation of water streams  Techniques related to cleaning operations:  (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 | **CC** | 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.  The Operator utilises ‘water savers’ at the site which reclaim approximately 1m3/hour. Following completion of improvement works to the onsite effluent treatment plant under V003, the Operator will be able to re-use 40% of the treated water from the on-site effluent treatment plant, through the use of MBR membranes and RO filters.  In addition the Operator undertakes the following techniques to reduce the water consumption at the site;   * The undertaking of dry cleaning where possible. * High pressure and low pressure foam cleaning is used where required. * Optimised CIP as managed by third-party specialists with cleaning of equipment and spillages etc as soon as possible * Optimised design and construction of equipment and process areas, to facilitate ease of cleaning. |
| 8 | **Prevent or reduce the use of harmful substances**  In order to prevent or reduce the use of harmful substances, e.g. in cleaning and disinfection, BAT is to use one or a combination of the techniques given below.  (a) Proper selection of cleaning chemicals and/or disinfectants  (b) Reuse of cleaning chemicals in cleaning-in-place (CIP)  (c) Dry cleaning  (d) Optimised design and construction of equipment and process areas | **CC** | The operator has provided information to support compliance with BATc 8. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 8.  The Operator undertakes dry cleaning where possible. An appropriate selection of cleaning chemicals and disinfectants are used at the site and are managed by a third party. The operator also optimises the design and construction of equipment and process areas, to facilitate ease of cleaning. |
| 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. | **CC** | The operator has provided information to support compliance with BATc 9. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 9.  Following the recent variation (V003), the original chiller plant that used Ammonia and HFC refrigerants has been replaced with refrigerant R1234ZE which is a Hydro Fluoro Olefin which has zero ozone depletion potential and a very low global warming potential rating of 6 . |
| 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 sludge from the dissolved air floatation (DAF) and biological plants is stored and dewatered before being sent offsite for energy recovery via anaerobic digestion. |
| 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. | **FC** | The operator has provided information to support compliance with BATc 11. We have assessed the information provided and we are not satisfied that the operator has demonstrated compliance with BATc 11.  The Operator has stated that under the current set up of the effluent treatment process the balance tank is operated at 40% of the overall capacity, this allows for any surges in effluent to be contained and treated prior to discharging to the foul sewer. When the capacity of the DAF plant reached 80% action is taken to prevent further effluent being produced such as preventing the cleaning of tankers and equipment, if the balance tank was to reach 90% capacity the DAF plant on site production is paused until the available capacity increases.  Whilst the Operator has demonstrated that there is sufficient capacity to deal with the buffering of effluent within the balance tank. The Operator has been unable to demonstrate how the site would deal with uncontrolled releases to the environment. The works associated with the previous variation V003 include the reviewing and assessment of the secondary containment along with measures within the onsite drainage system to prevent uncontrolled releases.  We consider that the operator will be future compliant with BATc 11. Improvement condition IC 4 has been included in the permit to achieve compliance (see Annex 3). |
| 12 | **Emissions to water – treatment**  In order to reduce emissions to water, BAT is to use an appropriate combination of the techniques given below.  Preliminary, primary and general treatment  (a) Equalisation  (b) Neutralisation  (c) Physical separate (eg screens, sieves, primary settlement tanks etc)  Aerobic and/or anaerobic treatment (secondary treatment)  (d) Aerobic and/or anaerobic treatment (eg activated sludge, aerobic lagoon etc)  (e) Nitification 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  (k) Sedimentation  (l) Filtration (eg sand filtration, microfiltration, ultrafiltration)  (m) Flotation | **CC** | The operator has provided information to support compliance with BATc 12. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 12.  Effluent arising from onsite processes is treated within an aerated balance tank allowing equalisation and neutralisation of the effluent, effluent is then passed forward to a Dissolved Air Flotation (DAF) tank to allow for the physical separation of suspends solids, fats, oils and greases. The resulting effluent is discharged to foul sewer and the resulting sludge is removed from site for further treatment.  Following the completion of the recent variation V003, the effluent treatment plant is being upgraded to utilise the following techniques.   * Effluent is screened before entering the balance tank * Within the balance tank the effluent is mixed and aerated to keep the effluent fully aerobic to allow equalisation, neutralisation of the effluent is also carried out * the effluent is then passed forward to the Dissolved Air Flotation (DAF) tank to allow for the physical separation of suspends solids, fats, oils and greases through the use of chemical coagulation / flocculation. * A proportion of the effluent is sent to the aeration tank for the biological treatment. * The effluent is then fed to the membrane bioreactor separation system (MBR) which utilises ultrafiltration to produce an extremely high quality permeate, the retentate is fed back to the aeration tank for further treatment. * The resulting permeate is further treated using Reverse Osmosis (RO) membranes to produce RO permeate which will be pumped to the site process water tanks for wider factory reuse. |
| 12 | **Emissions to water – treatment**  **BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body** | **NA** | We are satisfied that BAT-AELs associated with BATc 12 are not applicable to this installation.  The BAT-AELs are only applicable to installations discharging process effluent direct to water, all effluent from the site is treated in the onsite treatment plant and discharged to sewer under consent therefore, the BAT-ALEs are not applicable to this site. |
| 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;  - a protocol for response to identified noise events, eg complaints;  - a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. | **CC** | The operator has provided information to support compliance with BATc 13. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 13.  The Operator has an approved noise management plan in place that was integrated into the permit under the previous variation (V002). The noise management contains the elements as listed under BATc 13.  Following the previous variation (V003) IC 2 required a revised noise management plan to be provided within ‘3 months of the completion of the changes to key plant and equipment’. The Improvement Condition (IC2) from the previous variation (V003) has not been complied with and has been retained in this consolidated variation. |
| 14 | **Noise management**  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.  (a) Appropriate location of equipment and buildings  (b) Operational measures  (c) Low-noise equipment  (d) Noise control equipment  (e) Noise abatement | **CC** | 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.  The Operator has stated that the following techniques are utilised at the site to prevent/reduce noise emissions.   * Not operating fork-lift truck (FLT) & electrically powered pallet trucks (EPPT) horns between the hours of 19:00-07:00 (unless in an emergency). * Ensure all reversing sounders on both FLT and HGV’s (where possible) are de-activated. * Not operate the compactors in the enviro centre between the hours of 19:00-07:00. * Refrigerated vehicles compressor systems must be turned off whilst on site between the hours of 19:00-07:00. * No transporting dolavs to the enviro centre between the hours of 19:00-07:00. * Chemical orders for night shift to be pre-arranged and collected before 19:00 to minimise vehicle movements. * New sign for the main entrance of site ordered to highlight site rules to drivers which will make mention of noise.   In addition to the above techniques the Operator has stated that noise assessments are carried out sporadically by EHS Manager using a calibrated noise monitor. |
| 15 | **Odour Management**  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:  - a protocol containing actions and timelines;  - a protocol for conducting odour monitoring.  - a protocol for response to identified odour incidents eg complaints;  - an odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure: to characterise the contributions of the sources; and to implement prevention and/or reduction measures. | **CC** | 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.  The Operator has an approved odour management plan in place that was integrated into the permit under the previous variation (V002). The odour management contains the elements as listed under BATc 15.  Following the previous variation (V003) IC 1 required a revised odour management plan to be provided within ‘3 months of completion of commissioning of the ETP’. The Improvement Condition (IC1) from the previous variation (V003) has not been complied with and has been retained in this consolidated variation. |
|  | **DAIRY SECTOR BAT CONCLUSIONS (BAT 21-23)** |  |  |
| 21 | **Energy efficiency – Dairy Sector**  A list of different types of milk  Description automatically generatedIn order to increase energy efficiency, BAT is to use an appropriate combination of the techniques specified in BAT 6 and of the techniques given below.  Applicable in addition to BAT6 | **CC** | The operator has provided information to support compliance with BATc 21. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with BATc 21.  The Operator applies the following techniques to increase energy efficiency at the site including partial milk homogenisation, energy-efficient homogenisers, continuous pasteurisers, regenerative heat exchange in pasteurisation, and a small proportion of the milk is processed without intermediate pasteurisation. |
| 22 | A white sheet with black text  Description automatically generatedIn order to reduce the quantity of waste sent for disposal, BAT is to use one or a combination of the techniques given below. | **NA** | We are satisfied that the techniques listed under BATc 22 are not applicable to this installation.  The Operator has confirmed that none of the techniques listed under BATc 22 are utilised at the site, as they are not relevant to the processes undertaken at the site. |
| 23 | In order to reduce channelled dust emissions to air from drying, BAT is to use one or a combination of the techniques given below.   |  |  |  |  | | --- | --- | --- | --- | | Technique | | Description | Applicability | | (a) | Bag filter | See Section 14.2 Page 34 of the Bref | May not be applicable to the abatement of sticky dust. | | (b) | Cyclone | Generally applicable. | | (c) | Wet scrubber |   The associated monitoring is given in BAT 5. | **NA** | We are satisfied that the techniques listed under BATc 23 are not applicable to this installation.  The Operator has confirmed that there are no channelled dust emission from drying processes as no drying is undertaken at the site. |
| 23 | BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from drying   |  |  |  | | --- | --- | --- | | Parameter | Description | BAT-AEL (average over the sampling period) | | Dust | Mg/Nm3 | <2-10 (1) | | (1) The upper end of the range is 20 mg/Nm3 for drying of demineralised whey powder, casein and lactose. | | | | **NA** | We are satisfied that the BAT-AELs associated with BATc 23 are not applicable to this installation.  The Operator has confirmed that there are no channelled dust emission from drying processes as no drying is undertaken at the site. |
| **Dairy Sector Environmental Performance Levels** | |  |  |
| EPL | **Environmental Performance Level – Energy consumption for the dairy sector**   |  |  |  | | --- | --- | --- | | Main product (at least 80 % of the production) | Unit | Specific energy consumption (yearly average) | | Market milk | MWh/tonne of raw materials | 0.1-0.6 | | Cheese | 0.10-0.22 (1) | | Powder | 0.2-0.5 | | Fermented milk | 0.2-1.6 | | (1) The specific energy consumption level may not apply when raw materials other than milk are used. | | | | **CC** | 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 market milk.  The market milk figure of 0.1 – 0.6 MWh/tonne is appropriate for this installation. The Operator has states that the site achieved a specific energy consumption of 0.29MWh/tonne for the period of 2023 which is within the target, reflecting good energy management in place at this installation. |
| EPL | **Environmental Performance Level – Specific waste water discharge for the dairy sector**   |  |  |  | | --- | --- | --- | | Main product (at least 80 % of the production) | Unit | Specific waste water discharge (yearly average) | | Market milk | m3/tonne of raw materials | 0.3 - 3.0 | | Cheese | 0.75 - 2.5 | | Powder | 1.2 – 2.7 | | **CC** | The operator has provided information to support compliance with the waste water EPL. We have assessed the information provided and we are satisfied that the operator has demonstrated compliance with the energy consumption for waste water discharge for the dairy sector.  The market milk figure of 0.3 – 3.0 m3/tonne of specific waste water discharge of raw materials is appropriate for this installation. The Operator has states that the site achieved a specific waste water discharge of 1.2m3/tonne of raw material during 2023 which is within the target, reflecting good management at this installation. |

**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.

**Production/Capacity Threshold**

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

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

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

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

**Emissions to Air**

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

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

**Implementing the requirements of the Medium Combustion Plant Directive**

Existing Medium Combustion Plant (1MW-50MW)

We asked the Operator to provide information on all combustion plant on site in the Regulation 61 Notice as follows:

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

The Operator provided the information in the table below:

Boilers

|  |  |  |  |
| --- | --- | --- | --- |
|  | Boiler 1 | Boiler 2 | Boiler 3 |
| 1. Rated thermal input (MW) of the medium combustion plant. | 5.1 MWth | 5.1 MWth | 6.6 MWth |
| 2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant). | Boiler (Back-up) | Boiler  (Back-up) | Boiler (Duty) |
| 3. Type and share of fuels used according to the fuel categories laid down in Annex II. | Natural gas | 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. | 2009 | 2009 | January 2022 |

We have reviewed the information provided and we consider that the declared combustion plant qualify as “existing” medium combustion plant, in relation to boilers 1 & 2. Boiler 3 was permitted under the previous variation V003 (14/02/2023) and is considered to be a ‘new’ combustion plant.

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

We have included the appropriate emission limit values for existing medium combustion plant as part of this permit review. See Table S3.1 in the permit. We have also included a new condition 3.1.4 within the permit which specifies the monitoring requirements for the combustion plant in accordance with the MCPD. The limits and monitoring requirements for boiler 3 have been retained within this variation.

**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 requiresthat 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 [Milk Link Processing Crediton Site, Site Protection and Monitoring Program dated February 2006] in relation to the original application received on 30/03/2005. 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 has confirmed that no further site investigations have been undertaken since the site was transferred to Crediton Dairy from the previous operator Milk Link Processing Limited. Consequently, we are satisfied that the baseline conditions as recorded within the SPMP remain relevant.

**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 not undertaken an assessment of hazardous substances used and/or stored at the installation.

The operator is required to submit a short risk assessment for review by the Environment Agency on the hazardous substances stored and used at the installation. The risk assessment is to include 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.

Should the assessment identify that pollution of soil / groundwater to be possible, the operator is required to submit a relevant hazardous substances monitoring plan for review to the Environment Agency.

We have included an improvement condition into the permit (IC5) to request that the three stage assessment is undertaken and is submitted by the operator for approval from the Environment Agency.

**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.

Following the upgrades to the effluent treatment plant under the previous variation (V003) the Operator has confirmed that the water re-use will become the principle source of water, with abstraction from the onsite boreholes providing additional volume when required.

**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 and their findings. We are not satisfied that the existing tanks and containment measures on site meet the standards set out in CIRIA C736.

The Operator has confirmed that there is ongoing project work associated with the previous variation (V003) the work forms part of the wider improvements to the onsite effluent treatment plant and include implementing secondary containment across the site.

We have set improvement conditions in the permit to address the deficiencies in the existing tanks and containment measures on site (IC6). See Improvement conditions 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).

The following improvement conditions have been retained from the previous variation (V003) as they are not deemed to have been complied with.

|  |  |  |
| --- | --- | --- |
| Improvement programme requirements | | |
| **Reference** | **Reason for inclusion** | **Justification of deadline** |
| IC1 | Following completion of commissioning of the new effluent treatment plant, the operator shall submit a revised Odour Management Plan.  The revised plan shall be developed in accordance with Environment Agency’s H4 guidance on Odour Management https://www.gov.uk/government/publications/environmental-permitting-h4- odour-management.  The revised plan shall be submitted to the Environment Agency for approval in writing. | Within 3 months of completion of commissioning of the ETP. |
| IC2 | Following completion of commissioning of the new effluent treatment plant, the operator shall submit a revised noise Management Plan.  The revised plan shall be developed in accordance with Environment Agency’ guidance on Noise and Management Plans Noise and vibration management: environmental permits - GOV.UK ([www.gov.uk](http://www.gov.uk)).  The revised plan shall be submitted to the Environment Agency for approval in writing. | Within 3 months of completion of the changes to key plant and equipment, as authorised by V003 |
| IC3 | The operator shall submit a proposal for alternative appropriate measures for the secondary containment of any tanks not served by dedicated bunds.  The proposal shall detail how the proposed alternative appropriate measures will provide the equivalent environmental protection of a dedicated bund in order to prevent and/or minimise the impact of fugitive emissions from any loss of containment, based on the size, nature and content of the tanks in scope.  The proposal must be implemented as agreed in writing by the Environment Agency. | 1 month from date of issue or as agreed in writing by the Environment Agency |

The following improvement conditions have added to the permit as a result of the variation.

|  |  |  |
| --- | --- | --- |
| Improvement programme requirements | | |
| **Reference** | **Reason for inclusion** | **Justification of deadline** |
| IC4 | The operator shall submit, for approval by the Environment Agency, a report demonstrating achievement of the ‘Narrative’ BAT conclusions as identified in the Food, Drink and Milk Bref published on 4 December 2019 where BAT is currently not demonstrated or achieved. The report shall include, but not be limited to, the following:  • Methodology applied for achieving BAT  • Demonstrating that BAT has been achieved.  The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BATc 6 and 11  Refer to BAT Conclusions for a full description of the BAT requirement. | 3 months from date of issue or as agreed in writing by the Environment Agency |
| IC5 | The operator shall submit to the Environment Agency for approval a risk assessment considering the possibility of soil and groundwater contamination at the installation where the activity involves the use, production or release of a hazardous substances (as defined in Article 3 of Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures).  A stage 1-3 assessment should be completed (as detailed within the EC Commission Guidance 2014/C 136/-3) as follows;   * Stage 1 – Identify hazardous substance(s) used / stored on site. * Stage 2 – Identify if the hazardous substance(s) are capable of causing pollution. If they are capable of causing pollution, they are then termed Relevant Hazardous Substances (RHS). * Stage 3 – Identify if pollution prevention measures & drains are fit for purpose in areas where hazardous substances are used / stored.   If the outcomes of Stage 3 identifies that pollution of soil / ground water to be possible. The operator shall produce and submit a monitoring plan to the Environment Agency for approval detailing how the substance(s) will be monitored to demonstrate no pollution.  The operator shall commence monitoring of the RHS within a timescale as agreed by the Environment Agency. | 12 months from date of issue or as agreed in writing by the Environment Agency |
| IC6 | The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including:   * CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises, * EEMUA 159 - Above ground flat bottomed storage tanks   The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of   * current containment measures * any deficiencies identified in comparison to relevant standards, * improvements proposed * time scale for implementation of improvements.   The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency." | 12 months from date of issue or as agreed in writing by the Environment Agency |

**Annex 4: Pre-operational Conditions**

The following pre-operational condition has been retained from the previous variation (V003).

| **Pre-operational measures for future development** | | |
| --- | --- | --- |
| **Reference** | **Operation** | **Pre-operational measures** |
| PO1 | PO1 Operation of new effluent treatment plant | The Operator shall submit a written plan to the Environment Agency for the construction and commissioning of the new effluent treatment plant, including relevant key dates. |