Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

For the future of our environment

IED-T-DAT

Derogation Assessment Template – Cost Benefit Analysis (CBA)

Qualitative Derogation Assessment Tool (QDAT)

Operator: The Caledonian Cheese Company Limited
Installation Name: Caledonian Cheese Company
Location: The Creamery, Commerce Road, Stranraer, DG9 7DA

Permit Ref: EAS/P/6000001 (former authorisation reference: PPC/A/1003173)
Variation Number: VAR02

Derogation Assessment for Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Nitrogen (TN) and Total Phosphorus (TP) in effluent discharge from The Caledonian Cheese Company

V2.0, August 2025

Final Outcome of Derogation Assessment:

Derogation approved subject to EASR consultation.

Governance Details:
Derogation Technical Oversight Group Consulted – Yes
Manager Approval escalated to Head of Function (Permitting) – Yes

1. Non-Technical Summary

Introduction

The Caledonian Cheese Company Limited operator of a creamery in Stranraer, have requested a time limited derogation from the emission levels for discharge to the water environment for the best available techniques associated emission limits (BAT-AEL) for chemical oxygen demand (COD), total suspended solids (TSS), total nitrogen (TN) and total phosphorous (TP).

This decision document sets out the steps SEPA have followed in assessing the request for derogation.

Permit review

The review of this permit began under Regulation 44 (1) (d) of the Pollution Prevention and Control (Scotland) Regulations (PPC) following publication by the European Commission under Article 13 of the Industrial Emissions Directive (IED) of the revised BAT Conclusions (BATc) document under the Food, Drink and Milk Industries BAT Reference Document (FDM BREF) and associated BAT Conclusions (FDM BATc).

The derogation claim was made by the operator and assessed by SEPA under Regulation 25 (12) of the PPC Regulations 2012 as transposed from Article 15 (4) of the IED. Article 15 (4) the IED is transposed in paragraph 10(7) of Schedule 20 of the Environmental Authorisations (Scotland) Regulations 2018 (as amended by the Environmental Authorisations (Scotland) Amendment Regulations 2025) (EASR), which came into force on 1 November 2025. The permit variation giving effect to the derogation will be issued by SEPA under EASR.

BREF process

On review of this permit it has been established that the operator cannot currently achieve the BAT-associated emission levels (BAT-AELs) for direct emissions to a receiving water body specified in Table 1 of BAT 12 of the FDM BATc which form part of the BREF for this industry sector.

Derogation request

To reduce emissions on site to meet the FDM BAT 12 AELs an additional period has been requested to help facilitate significant infrastructure changes on site. These include; new treatment systems, namely Phase 1 Dissolved Air Flotation (DAF) System and Phase 2 Biological Treatment Plant - An Aerobic Activated Sludge Plant, utilising Membrane Bioreactor (MBR) technology.

SEPA Assessment

SEPA's assessment focused on the eligibility for derogation while undertaking a Qualitative and Quantitative Cost Benefit Assessment (CBA). A progressive reduction in emissions is expected during the derogation period as different phases are implemented.

Environmental Impact

Currently the sites effluent is discharged to sea. The outfall has been operational for 10 years and was modelled and authorised by SEPA passing all relevant EQS at the time. SEPA's marine chemistry unit reviewed the discharge and advised there was no change in the assessment of EQS values from the initial study in 2012 used to determine authorisation.

Overall, a high level of protection to the water environment will not only be maintained but enhanced, as considered further in this document.

Conclusion

SEPA is minded to approve a derogation until 4 December 2029 as justified by the available information assessed and the reasons presented.

2. Basic Information

Table 1: Basic Information

Question	Answer
BREF	The Best Available Techniques (BAT) Reference document for the Food, Drink & Milk Industries was published in 2019 (link below) Best Available Techniques (BAT) Reference Document for the Food, Drink and Milk Industries (europa.eu)
BAT Conclusions reference number and date of publication	The Food, Drink & Milk Industries BAT conclusions document was adopted on 12 December 2019 & published on 4 December 2019 (link below) EUR-Lex - 32019D2031 - EN - EUR-Lex (europa.eu) C/2019/7989/EU, 04/12/2019
BAT Conclusions compliance date	4 December 2023
Associated derogations at Installation	☒ N/A ☐ Yes

Overview of the BAT Conclusions Review and Derogation Process

The BREF document sets out the techniques and technologies that are considered to be the most effective at reducing emissions for a specific industry.

BAT Conclusions are the reference for setting permit conditions and include emission levels associated with the best available techniques (BAT-AELs). SEPA is required to review the site's Pollution Prevention and Control permit within four years of the publication of the BAT Conclusions to determine the Best Available Techniques (BAT) for the site and any necessary

changes to the conditions of the permit to deliver the updated requirements. The review process involves detailed examination of current and proposed operations and the drafting of changes to the conditions of the permit.

In the event that achievement of a BAT-AEL would lead to disproportionately higher costs compared to the environmental benefits due to the geographical location, local environmental conditions or technical characteristics of the site, derogation from the BAT-AEL can be requested. This requires significant discussion and agreement from SEPA that it is an acceptable route. There are strict legal tests that must be passed for a derogation to be acceptable. These are all detailed below, with the primary tests being that:

1. an assessment shows that achievement of the relevant BAT-AEL(s) would lead to disproportionately higher costs compared to environmental benefits due to either the geographical location or local environmental conditions of the installation or technical characteristics of the installation; and
2. any less strict value set by SEPA does not exceed the emission limit values set out in the Annexes to the Industrial Emissions Directive and ensures that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.

To demonstrate disproportionate cost, a hybrid quantitative and qualitative Cost Benefit Analysis (CBA) was completed. The quantitative element was completed using a spreadsheet tool developed by the UK Environmental Regulators. This is freely available on the Gov.UK website.

The qualitative element assessed other factors, including climate change, circular economy, biodiversity and technical factors. This approach is used for assessing impacts on the water environment as there are no formal damage costs available for these pollutants (UK damage costs are published annually for air pollutants).

SEPA assesses the request for derogation at a Derogation Technical Oversight Panel to ensure that a consistent and rigorous assessment process is applied. The draft decision document and relevant section of the proposed permit variation is then placed on SEPA's website for 28 days for public comment. These comments are then reviewed and taken into account before a decision is taken on the permit variation.

Overview of Caledonian Cheese Company BAT Conclusions permit review

SEPA have been reviewing the entire Pollution Prevention and Control permit for the installation against the FDM BATc. The review is documented and can be viewed on a separate decision document IED-DD-12. [The permit review has concluded that upgrade conditions for emission limit values (ELVs) in line with BAT 12 are required]. Currently, there are no emission limits for the BAT-AEL parameters specified in Table 1 of BAT 12 of the FDM BATc with the exception of Suspended Solids (authorised at 3000 mg/l) set within the permit. Review of effluent data informs us that the operator will currently not be able to achieve emission limits within these parameters.

With significant investment and upgrade to the site it is projected that emission limits within the relevant parameters can be achieved at a future date, therefore a time phased upgrade condition has been requested.

3. Derogation Description

Derogation from the BAT 12 AELs for COD, TSS, TN and TP

BAT 12 specifies four BAT-AELs for direct emissions to a receiving water body applicable to effluent discharges. These BAT-AELs are described in the table below along with a comparison of current effluent discharge performance at the site against these parameters and proposed improvements.

Table 2 - Current effluent performance compared to BAT-AELs and proposed improvements

Parameter	BAT-AELs (daily average) mg/l	Current (daily average) mg/l	Proposed Phase 1 (30 November 2026) (daily average) mg/l	Proposed Phase 2 (4 December 2029) (daily average) mg/l
COD	*125	4801	2200	125
TSS	4-50	515	500	30

TN	2-20	242	210	20
TP	0.2-2	66	20	1.0

*COD - BATc Table 1 footnote 19 - upper end of range for dairies.

Short Description

Operator Proposal

The operator has requested a 4 year derogation from all four of the BAT 12 AELs until 4 December 2029. The request has been made to allow sufficient time to complete the development of an appropriate effluent treatment system to meet these BAT-AELs.

In 2015 the effluent discharge point from the site was moved from Loch Ryan in Stranraer via approx. 10km underground pipeline to a sea outfall near Port Patrick known as ‘Castle Bay’.

The operator proposes to maintain this existing / current discharge point.

Salt whey project

As part of the site’s waste audit, measures have been taken to reduce the amount of waste salt whey discharged to the current effluent treatment plant. A salt whey separator has been introduced to target salt whey generated during production. The unit will remove a high proportion of salt whey prior to discharge, thereby significantly reducing the COD load to the water environment. The project is due to be fully operational by the end of October 2025 and by November the site will have sample readings to confirm the improvements made. The cost of the project was approx. £1.5million, with an additional annual cost of £300k for salt whey tankering.

Effluent treatment

The current effluent treatment system balances and aerates wastewater. The operator proposes the following upgrades;

Phase 1

Dissolved Air Flotation (DAF) System

Install physical/chemical treatment to remove COD, suspended solids and fats, oils, and grease (FOG). This phase alone will not achieve full compliance with BAT 12 but will improve effluent quality. See Table 2 above. Timeline of implementation by 30 November 2026.

Phase 2

Biological Treatment Plant

Installation of an Aerobic Activated Sludge Plant, utilising Membrane Bioreactor (MBR) technology. There is potential for water reuse and recycling in future. See Table 2 above. Timeline completion by 4 December 2029.

Duration of Derogation

The proposed derogation is time limited to 4 December 2029. After this date full compliance with the four relevant BAT-AELs will be required.

4. BAT Assessment

Is the proposed derogation BAT?

☒ Yes ☐ No

Yes, the proposed derogation is BAT.

BAT is a dynamic concept not just focused on technologies but also on emerging techniques and processes. The proposed measures namely, the introduction of a DAF plant, aerobic treatment, MBR and salt whey reduction are anticipated to result in a reduction in emissions to the water environment.

With reference to the FDM BREF, the wastewater treatment techniques proposed to meet BAT are established.

The installation of a DAF plant is important because if FOG is not removed prior to treatment, it may hinder the aerobic process as it is not easily degraded by bacteria. The DAF plant will also help aid the operational performance of the MBR by reducing biofouling.

Anaerobic v Aerobic (or multi stage) there are a variety of pros and cons. Although there has been some success using anaerobic systems in the dairy sector, typically they are adopted by the fruit and vegetable and alcoholic drinks sector. Therefore, the proposed implementation of an aerobic system at a dairy site is regarded as BAT.

MBR is a recognised technique for emissions to water in the FDM BREF. It is compatible with aerobic systems and helps negate the need for a multi stage approach (although MBR can be used in both anaerobic and aerobic systems). The FDM BREF advises that MBR can reduce the amount of sludge and reduce the load of SS, COD or TOC, BOD, and TP by 95–99 %. There is future potential to reuse the water.

Salt whey separation / recovery is recognised as BAT, as described BAT 22 (e). The technique adopted on site removes a high proportion of salt whey prior to discharge.

By implementing the above primary and secondary treatments, techniques described in FDM BAT 12 (c) and (d) will be used (Table 1: BATc document link).

In order to implement the above mentioned techniques SEPA accept the timeline proposed is reasonable.

5. Legal Requirements

Environmental Quality Standards (EQS)

There are no marine EQS standards for TSS, COD, TP & TN. Therefore, there is no relevant EQS for this release.

Mandatory Emission Limit Values

The mandatory minimum emission limit values in Annex V, VI, VII or VIII of the IED do not apply to this release.

No Significant Pollution / High Level of Environmental Protection

Background

The effluent from the creamery is discharged to sea via a long sea outfall into the North Channel approx. 250 meters off the coast. The receiving water body is known as the Mull of Galloway to Corsewall Point waterbody for Water Framework Directive (WFD) classification purposes. RBMP3

The Mull of Galloway to Corsewall Point waterbody (ID: 200012) is in the Solway Tweed River Basin District and is 333.5 km^2 in area.

As the entire water body is not impacted by the discharge the water damage costs have also been determined based on the mixing zone for the consented discharge, which is approximately 1km^2, as confirmed by SEPA's Marine Chemistry Unit.

The overall status of the Mull of Galloway to Corsewell Point water body is Good for WFD classification purposes.

The effluent discharge from the creamery has not been identified as a pressure to the classification of this waterbody.

No significant pollution

Following the move of the effluent discharge point from Loch Ryan to the North Channel this has reduced the potential for significant pollution. Feedback from SEPA's Marine Chemistry Unit was that this discharge does not breach EQS standards. The current permit has associated limit values for BOD, SS, pH and volume, which the site is compliant with. There have been no significant pollution incidents attributed to the effluent discharge to sea.

High level of protection to the environmental as a whole

The introduction of the phased BAT-AELs for COD, TSS, TN and TP will ensure a higher level of protection to the environment as a whole. Currently three of these four pollutants are not regulated within the permit. An upgraded effluent treatment system on site will reduce the emission loadings of these four pollutants to the environment.

6. Derogation Justification

Derogation Criteria: Technical characteristics

The operator identified the following two points which act as a justification to support a derogation request under Article 15(4) of the IED.

1) **Previous investment in effluent discharge.**
   Caledonian Cheese were originally authorised (with upgrade conditions) to discharge their effluent to Loch Ryan. Loch Ryan is a shellfish water and so is subject to the stringent microbiological standards set out within the EC Shellfish Waters Directive. As the site was unable to meet these standards it was agreed to move the discharge out of Loch Ryan as this provided the best long term environmental solution. In order to do this a lengthy underground pipeline (approx. 10km) was constructed across country from Stranraer to a sea out fall approx. 0.8km south of Port Patrick. This improvement was timely and a financial burden for the site. However, the site demonstrated their commitment to investing in the company and local community to ensure a more viable

sustainable way forward. These works completed in 2015 demonstrate a history of recent investment to the sites operational and process techniques resulting in reduced emissions to Loch Ryan.

As highlighted in section 3 the site has also recently invested in measures to reduce COD emissions from the site via their 'salt whey project'.

The next big investment phase for the operator will be to install a new treatment system on site to now meet the requirements of the FDM BATc.

2) **Time constraints to implement changes.**

A four year derogation period where SEPA sets less strict ELVs to allow time for the new treatment system to be commissioned, constructed and operational would be reasonable. This judgement is based on SEPA's experience with similar projects and the current difficulties around procurement; therefore, it is deemed that this timeframe is realistic. The proposed treatment system has been assessed as BAT and therefore BAT standards will ultimately be achieved.

7. Assessment of Disproportionality

Version of tool: CBA and QDAT

- For derogation claims relating to water limited data is available for damage costs. Therefore, we have taken a hybrid approach of a Qualitative Assessment, with use of the Cost Benefit Assessment tool to illustrate the costs and benefits to the water environment.
- The quantitative approach for assessing damage/improvement in waterbodies uses environmental benefit values.
    - These monetised values have been produced for each water body in Scotland and are based on improving water body status;
    - The values for benefits associated with water body improvements are dependent on the resident population density in a water body location; and,
    - Willingness to pay values for fish, other invertebrates, plant communities and water clarity.

- When calculating the improvement costs or damage costs we use the baseline waterbody length or area plus tributaries that are being improved or downgraded or in cases of the marine environment the mix zone.
- The annual emission reductions have not been quantified as water damage costs do not exist for these substances. A damage cost was calculated using WFD classifications for an area judged by SEPA to represent the largest possible area of impact. In this case the area is 1km^2.
- The latest CBA Spreadsheet was downloaded from the UK.Gov Website. Version 6.23, as updated on 4 October 2021.
- In the interests of time SEPA carried out the CBA using cost data specifically requested from the applicant.

Overview of Assessment

Three scenarios were entered into the tool:

1. Business as Usual – current situation. No actual business costs were entered for this in the CBA Tool as the aim is to show the difference between the BAT-AEL and derogation options. Damage costs as described above over four year period to 2029 are included.
2. Proposed derogation – using indicative capital and running costs and timings provided by the applicant for each proposed Phase until 2029. Damage costs as described above until 2029. Note the running costs are then taken forward for another 20 years (i.e. only once BAT is achieved).
3. BAT-AEL – the hypothetical costs of upgrading the effluent treatment plant and operating it for 20 years to meet the BAT-AEL discharge requirements from 2023.

Data input - General

- WAC of Capital set at 7.5% (Low 5% and High10%), based on comparable derogation assessments.
- Duration of improvements was set at industry standard of 20 years for investment decisions.

- For water damage costs, an additional line was added to the Damage Costs part of the spreadsheet for an annual cost of £104,667.
- This figure was derived from the cost of moving from moderate to good for the Galloway Coastal water body (ID: 200012) (figures from SEPA published water benefit costs, adjusted for inflation, multiplied by the baseline area (1 km^2), giving £104,667 x 1 = £104,667).
- The baseline water body (1 km^2) costs reflect a hypothetical downgrade of the WFD Classification of the impacted area, and as such represents a worst-case assessment. The Classification remains at Good.

Note: These figures are available in the water benefit costs spreadsheet hyperlinked in WAT-RM-41.

Data input - Options

1. Business as Usual – current situation. This incurred no additional costs in the CBA tool and so no figure is given. Run for the proposed four years of the derogation.
2. Proposed derogation – Phased costs entered into spreadsheet. Damage costs unchanged until full compliance achieved in 2029. Run for the proposed four years of the derogation.
3. BAT-AEL – Information was provided by the applicant for the expected upgrade and running costs over 20 years.

Tool Results (CBA only)

The results indicate that the costs of achieving the FDM BAT 12 AELs over the proposed derogation would exceed the benefits based on the baseline water body costs (defined as a one step up change in Water Framework Directive classification within the mixing zone area) to the water environment by a net present value of -£5.8 million (central estimate). Sensitivity tests also supported the central estimate which includes considering lower costs and higher benefit costs.

Sensitivity Analysis (CBA only)

The CBA Tool automatically carries out a sensitivity analysis on the key variables and underlying Net Present Value (NPV) costs and benefits.

Balancing Test (QDAT only)

Table 3 - QDAT

Environmental Benefits Summary of the benefits the proposed derogation would provide	**Costs of achieving the BAT-AELs** Summary of the costs of the proposed derogation
Effects on Health and Safety (emissions to water only) None identified	The applicant will invest in the treatment plant to deliver: Phase 1: A new DAF unit. Phase 2: An Aerobic Activated Sludge Plant, utilising Membrane Bioreactor (MBR) technology. These measures will allow the resource value in terms of solids to be gained from the effluent and improve the final effluent quality to meet the FDM BAT 12 AELs.
Effects on recreation (emissions to water only) None identified	
Effects on visual amenity and landscapes (emissions to water only) Additional structure on site (new / upgraded ETP). However, it will be sited within the confines of an already established industrial site / estate.	
Effects on climate change The effects are expected to be balanced. Circular economy benefits are associated with the effluent stream recovery and whey reuse. There will be increase energy demand and chemical use.	
Effects on biodiversity	

Environmental Benefits Summary of the benefits the proposed derogation would provide	**Costs of achieving the BAT-AELs** Summary of the costs of the proposed derogation
Neutral in the interim for the water environment as current WFD water quality is Good status. A reduction in pollutant loading will ultimately have a beneficial effect on biodiversity.	

Senior Policy Officer Report

The hybrid approach to assessing the cost benefit analysis for this derogation used a qualitative benefits and disbenefits assessment test (QDAT) using IED-G-006 along with a quantitative assessment using SEPA's environmental benefit values (water damage costs).

The values were developed from the National Water Environment Benefits survey which is referenced in the Government Green Book Annex A as an option for assessing the quality of water in the environment. These values have been used by SEPA in the past and were consulted on and published in 2023.

The QDAT did not identify any significant environmental benefit or disbenefit for this proposed derogation. However, the CBA assessment using data from the applicant along with damage costs did identify the cost of achieving the FDM BAT 12 AELs would outweigh the benefit disproportionately when compared with the proposed derogation.

Overall Judgement

The CBA indicates the cost to the operator of meeting the FDM BAT 12 AELs by December 2023 (assessed against BAT conclusions compliance date) is disproportionate compared to the proposed derogation.

8. Review of Derogation Assessment

Permitting officers minded to position

I am minded to accept the derogation request as submitted by the operator for a period of four years for the reasons set out below.

The derogation request meets the technical characteristic criterion [namely historic investment and time constraints] with an appropriate range of options reviewed and those identified as technically viable were considered further. Viable options were taken forward for CBA/QDAT, were adequately described in the CBA and the cost of the BAT-AEL option (as highlighted below) was confirmed as disproportionate compared to the environmental benefits. The environmental impact of the time delayed derogated limits were assessed and considered acceptable. Upgrade conditions will be varied into the permit requiring that the FDM BAT 12 AELs are met. Thereby, reducing emissions to the water environment and ensuring a higher level of protection of the water environment overall.

Overview of site and installation

There has been a creamery on this site in Stranraer since 1899. The site produces a range of cheddar cheeses and whey powder from the sweet whey- by product (whey is supplied to other companies and used in confectionary, ice cream, ready meals or as animal feed).

Permitting Officers assessment of the derogation request

Validity of the derogation request

The operator has referred to the BAT Conclusions and addressed all reasonable options for achieving the BAT-AELs. See section 7 for full details of CBA.

Table 4: Options

Option name	Short description of the option	Emission limit that would be achieved	Timescales for completion	Option taken forward to the CBA
Scenario 1 Maintain Port Patrick discharge	Maintain primary treatment plant; screening, balancing, pH correction with added new addition of DAF plant	COD = 2200 mg/l TSS = 500 mg/l TN = 210 mg/l TP = 20 mg/l	2026	No, advised will not meet BAT-AELs
Scenario 2 Discharge back to Loch Ryan	Primary Treatment Plant followed by Aerobic Activated Sludge Plant with Clarifier (CASP) or Anaerobic Digestor with Belt thickener and DAF followed by CASP	COD = 125 mg/l TSS = 50 mg/l TN = 20 mg/l TP = 2.0 mg/l	Unclear	No. Advised a discharge back to Loch Ryan was considered not feasible due to the higher potential environment risk. Loch Ryan is subject to Shellfish Standards which are akin to bathing water standards.
Scenario 3 Discharge back to Loch Ryan	Primary Treatment Plant followed by Aerobic Activated sludge Plant with MBR separation (Aerobic MBR) or Anaerobic Digestor with Membrane	COD = 85 mg/l TSS = 10 mg/l TN = 10 mg/l TP = 1.0 mg/l	Unclear	No. Advised a discharge back to Loch Ryan was considered not feasible due to the higher potential environment risk. Loch Ryan is subject to Shellfish

Option name	Short description of the option	Emission limit that would be achieved	Timescales for completion	Option taken forward to the CBA
	Separation (AnMBR) followed by Aerobic MBR			Standards which are akin to bathing water standards. Even where the MBR technology might improve the microbial loading SEPA has a presumption against discharges to lochs. Taking into account the sensitive receptors in the Loch, a return to this location is not viable especially when an alternative is already in operation.
Scenario 4 Maintain Port Patrick discharge	Phase 1 – Installation of Dissolved Air Flotation (DAF) System Phase 2 – Installation of an Aerobic Activated Sludge Plant, utilising Membrane	COD = 125 mg/l TSS = 10 mg/l TN = 20 mg/l TP = 1.0 mg/l	2029	Yes

Option name	Short description of the option	Emission limit that would be achieved	Timescales for completion	Option taken forward to the CBA
	Bioreactor (MBR) technology.			

The operator provided SEPA with the necessary cost data which allowed SEPA to undertake the cost / benefit analysis of the most viable option, scenario 4.

Demonstrating disproportionality of costs and benefits

The operator has satisfactorily demonstrated that the stated criterion would result in disproportionately higher costs of achieving the FDM BAT 12 AELs compared to the environmental benefits.

The Cost Benefit Analysis has been reviewed and is considered to support the derogation request (see Section 7).

Summary

The operator has provided sufficient information to enable SEPA to be satisfied that the costs linked to achieving the FDM BAT 12 AELs without the derogation requested are disproportionate compared to the environmental benefits.

Risks of allowing derogation

Allowing the proposed derogation would not cause significant pollution. However, it will enable delay of full compliance with the FDM BAT 12 AELs. These limits are not currently being achieved and so a time limited derogation allows a focus for achieving BAT-AELs within a reasonable established legally enforceable timeframe.

The annual emissions of COD and SS from the activity are currently 2,571,961kg and 85,849kg respectively, these would reduce to at least 136,857kg COD and 32,850kg SS when the BAT-AELs are met at the end of the derogation period. Annual emissions of TN and TP are not available, however similar reductions are expected.

There have been no complaints regarding the current discharge. On considering public opinion it is anticipated that because the discharge outfall is already established and in an area with no sensitive receptors, a time limited derogation resulting in an overall improvement to the environment should not raise objection.

There are no predicted impacts of derogation from the BAT-AELs on the Environmental Quality Standards (EQS) as marine EQS are not relevant to COD, TSS, TN and TP.

Other potential environmental impacts have been explored in Section 7 Table 3. No notable predicted impacts have been identified that cannot be regulated against. For example, demands on resource utilisation may change i.e. increase in energy demand to meet the new ETP, the site however will still be required to meet BAT 21 and achieve indicative environmental performance for specific energy consumption. The new MBR technology may have the potential to improve environmental impact by re-using water. Although not expected if potential noise or odour issues were to arise from the new ETP, regulatory measures are in place to ensure no noise / odour is permitted out with the site boundary.

Final Considerations

- Support of the derogation will enable the operator and SEPA regulatory colleagues to proceed within a legally agreed pathway and provide clarity on the way forward. The operator has expressed their commitment to meeting the BAT-AELs. Balancing up the timescale proposed by the operator (deemed as realistic by SEPA), the environmental impact (no significant pollution) and the regulatory burden it would place on SEPA to pursue compliance by different means is unlikely to expedite the meeting of the BAT-AELs due to the recognised practicalities around the timescale for upgrading the ETP.

- Upgrade conditions will be included in the permit variation to support delivery of a phased reduction in emissions. Monitoring data will be required for the ELVs of COD, TSS, TN and TP during the derogation period along with an annual progress report. This will enable regulatory colleagues to ensure the site is on track and working towards the derogation deadline.

- Cheese making is a long-established tradition in Stranraer. A creamery has been on the site for over 125 years and is a significant employer to the town.

9. Text for inclusion in the permit

Permit Conditions

The current permit will be varied to include the time limited ELVs as follows;

Parameter	ELV
Chemical oxygen demand (COD)	2200 mg/l* 125 mg/l**
Total suspended solids (TSS)	500 mg/l* 30mg/l**
Total nitrogen (TN)	210 mg/l* 20 mg/l**
Total phosphorous (TP)	20 mg/l* 1.0 mg/l**

* From 30 November 2026 Until 3 December 2029

** From 4 December 2029

In addition, the following new condition has been inserted to track progress with planned changes during the derogation period to provide reassurance that the strategy will deliver compliance with the BAT-AELs.

New Condition 4.7.4 has been added, as follows:

> By 31 December each year the operator shall provide a progress report including but not limited to:

(a) A review of effluent monitoring data gathered for COD, TSS, TN & TP over the previous 12 months in accordance with Condition 4.2.7 and compare performance against the ELV's in Table 3.5B that apply.

(b) Overall progress made in the previous 12 months in the implementation of techniques to reduce emissions to water of COD, TSS, TN & TP to achieve compliance with the ELVs for those parameters in Table 3.5B that apply.

(c) Intended plans for reducing emissions to water of TSS, COD, TN & TP over the following 12 month period.

Installation specific derogation schedule

1 The Regulation

Paragraph 10(4) of Schedule 20 of the Regulations provides that SEPA must include emission limit values that ensure that emissions do not exceed the levels associated with the best available techniques (BAT-AEL) laid down in the BAT conclusions.

Paragraph 10(7) of Schedule 20 of the Regulations states:

> "SEPA may grant a derogation to the emission limit values required by sub-paragraph (4) on application by the authorised person requesting a variation where–
>
> (a) an assessment shows that achievement of the emission levels associated with the best available techniques as described in any applicable BAT conclusions relevant to the activity as determined by SEPA, would lead to disproportionately higher costs compared to environmental benefits due to–
>
> i) the geographical location or local environmental conditions of the installation, or
>
> ii) technical characteristics of the installation,
>
> (b) the emission limit value set–
>
> i) does not exceed the emission limit values set out in schedule 21 to 24 for a particular industrial emissions activity,
>
> ii) ensure that no significant pollution is caused and that a high protection of the environment as a whole is achieved, and
>
> (c) a schedule to the permit specifies the reasons for setting a less strict emission limit value, including the result of the assessment under head (a) and the justification for the conditions imposed."

The purpose of this Schedule is to satisfy those requirements.

2 The Derogation Used

SEPA has decided to set an ELV that derogates from the BAT-AEL range in the BAT Conclusions in respect of chemical oxygen demand (COD), total suspended solids (TSS), total nitrogen (TN) & total phosphorous (TP).

Parameter	BAT-AEL[1] range in the BATc	Derogated ELV
Chemical oxygen demand (COD)	25 -125 mg/l^	2200 mg/l* 125 mg/l**
Total suspended solids (TSS)	4 - 50 mg/l	500 mg/l* 30mg/l**
Total nitrogen (TN)	2 - 20 mg/l	210 mg/l* 20 mg/l**
Total phosphorous (TP)	0.2 - 2 mg/l	20 mg/l* 1.0 mg/l**

[1] BAT-AEL as specified in Table 1 of the Food, Drink and Milk Industries BATc.

^ 125 mg/l upper range for dairies

* From 30 November 2026 Until 3 December 2029

** From 4 December 2029

3 Basis for the Derogation

SEPA has set this emission limit value on the grounds that achievement of emissions within the BAT-AEL range would lead to disproportionately higher costs compared to environmental benefits due to the technical characteristics of the installation:

The technical characteristics of the installation mean that achievement of COD, TSS, TN and TP emissions within the BAT-AEL range would lead to disproportionately higher costs due to the need to:

i) Previous investment in effluent discharge.

ii) Time constraints to implement changes.

A Cost Benefit Analysis conducted by SEPA based on applicant data gave the result that achievement of emissions for chemical oxygen demand, total suspended solids, total nitrogen

and total phosphorous within the BAT-AEL range would lead to disproportionately higher costs for the reasons given above.

4 Justification for the Conditions Imposed

SEPA has included an ELV of 125 mg/l for COD, 30 mg/l for TSS, 20 mg/l for TN and 1.0 mg/l for TP on the grounds that SEPA considers it:

- Represents BAT for the installation.
- Ensures no significant pollution of the environment will be caused and that a high level of protection of the environment as a whole will be achieved.
- The derogation is time limited until 4 December 2029.
- There is projected to be a phased reduction in emissions to water during the period of the derogation.

10. Conclusions

Overall Conclusion

The operator has demonstrated that the costs of achieving the BAT-AELs without a time limited derogation in place are disproportionate to the environmental benefits.

The Scottish Environment Protection Agency has reviewed the derogation request and concluded that the derogation in justified in this case.

The Scottish Environment Agency is therefore minded to allow this derogation request subject to the conditions outlined in Section 9.