



**APPLICATION FOR AN ENVIRONMENTAL PERMIT
VARIATION UNDER THE ENVIRONMENTAL
PERMITTING (ENGLAND AND WALES)
REGULATIONS 2016 (AS AMENDED)**

**ENVIRONMENTAL PERMITTING TECHNICAL
REQUIREMENTS DOCUMENT**



**DAIRY PARTNERS (CYMRU WALES) LIMITED,
THE CREAMERY, ABERARAD,
CASTELL NEWYDD EMLYN,
CAMARTHESHIRE, SA38 9DQ**

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ACRONYMS / TERMS USED IN THIS REPORT

BAT	Best Available Techniques
BREF	Best Available Techniques Reference Document
CiP	Cleaning in Place
DAF	Dissolved Flocculation Plant
DP	Dairy Partners (Cymru Wales) – The applicant
DAA	Directly Associated Activity
EAL	Environmental Assessment Level
ECL	Environmental Compliance Limited
EHS	Environment, Health and Safety
ELV	Emission Limit Value
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2016 (as amended)
EPTR	Environmental Permitting Technical Requirements Document
EQS	Environmental Quality Standard
ERA	Environmental Risk Assessment
ETP	Effluent Treatment Plant
IED	Industrial Emissions Directive
NGR	National Grid Reference
NIP	Noise Implementation Plan
NRW	Natural Resources Wales
OMP	Odour Management Plan
SAC	Special Area of Conservation
SCL	Secondary Containment Lagoon
SCR	Installation Condition Report
SOP	Standard Operating Procedures
SSSI	Installation of Special Scientific Interest
SuDS	Sustainable Drainage System
The Installation	Area contained within the proposed Environmental Permit boundary at Dairy Partners Installation at Newcastle Emlyn (The Installation)
QA	Quality Assurance

1. INTRODUCTION

1.1. Overview

- 1.1.1. Environmental Compliance Limited (“ECL”) has been commissioned by Dairy Partners (Cymru Wales) Limited (“DP”) to prepare an Environmental Permitting Technical Requirements (“EPTR”) document to form part of the Environmental Permit variation application at their dairy manufacturing facility (Environmental Permit (EPR/WP3231NB), hereafter referred to as “the Installation”, located at The Creamery, B4333 Road, Aberarad, Newcastle Emlyn, SA38 9DQ (“the Installation”).
- 1.1.2. The Installation manufactures mozzarella blocks products from milk, a large proportion of which comes from local dairy farms in Wales.
- 1.1.3. The Installation processes more than 850 tonnes of milk received per day, and therefore, is permitted under Section 6.8 Part A(1)(e) of Environmental Permitting (England and Wales) Regulations 2016 (as amended) (“EPR”). The Installation also treats process effluent in an on-Installation effluent treatment plant (“ETP”) permitted under Section 5.4 Part A(1)(a)(i) of EPR.
- 1.1.4. As part of DP’s ongoing Installation development programme, DP is proposing to install two new above-ground stainless steel sludge storage tanks, each with a capacity of 32,000 litres, and a new pumping system. These improvements are scheduled for installation once the permit variation application is approved. These tanks form part of the Installation’s long-term strategy to optimise sludge handling and align with evolving best practice.
- 1.1.5. There are two emission points to surface water of uncontaminated surface run-off to the Afon Arad, denoted as W2 and W3.
- 1.1.6. The variation application proposes the decommission and removal of the W3 outlet from the Permit, which is of uncontaminated surface run-off (primarily from adjacent properties that naturally run into the Installation) following development of the Secondary Containment Lagoon (“SCL”) Project. This has been acknowledged by NRW as detailed in NRW Decision Document EPR/WP3231NB/V004, which states: *‘the Operator has confirmed that emission point W3, currently used for surface water drainage, will be decommissioned following the development of the proposed containment system’*.
- 1.1.7. Due to the scope of the proposed infrastructure changes—two larger sludge tanks and a new pumping system, this will require an environmental risk assessment; and thus, a permit variation application has been prepared.
- 1.1.8. Discussions have been held with NRW. Secondary and tertiary containment has been discussed and addressed through the agreed bund works and the forthcoming (SCL Project). The sludge tank replacement is one element within a wider, phased containment and resilience programme.

1.2. Installation Location

- 1.2.1. The Installation is located at The Creamery, B4333 Road, Aberarad, Newcastle Emlyn, SA38 9DQ.
- 1.2.2. The Afon Arad runs through the eastern area of the Installation from south to north. The Installation is within 10 km of Afon Teifi / River Teifi Special Area of Conservation (“SAC”) and Sites of Special Scientific Interest (“SSSI”) and within 2 km of Old Cilgwyn and Cae Heslop SSSI.
- 1.2.3. The location of the proposed stainless steel sludge tanks along with a new Roto M561 progressive cavity pump, is shown on the Secondary Containment Lagoon Project Plan contained in Appendix III of this application submission.

1.3. The Applicant

- 1.3.1. DP has been operating under Environmental Permit WP3231NB since its full transfer to Dansco Dairy Limited in August 2013, prior to their company name change to Dairy Partners (Cymru Wales) Limited.
- 1.3.2. The Installation is currently undergoing significant investment and expansion benefiting local employment and boosting the Welsh economy.
- 1.3.3. DP have invested heavily at the Installation as follows:
- improved facilities for milk intake, mozzarella and cooking;
 - improved chilling and whey processing;
 - new modern processing equipment to produce high-quality cheese and whey processing; and
 - new ETP to improve the increased water quality of the effluent being discharged.
- 1.3.4. **Pre-Application Advice**
- 1.3.5. Following discussions (between Mr Keith Arter (DP Health, Safety and Environment Manager), Ms Kirsty Thomas (Natural Resources Wales (“NRW”) – Industry Regulation Senior Officer) and Mr Alex Bowder (NRW Industry Regulation Officer), it was agreed that a permit variation application would be required prior to the installing and commissioning of a new sludge storage and pumping system, alongside the new secondary containment lagoon project, which is currently on-going.
- 1.3.6. The discussions regarding the proposed variation with NRW included:
- Installation of the new sludge stainless steel tanks;
 - installation of the carbon filtration units on all breather and vent lines;
 - installation of the progressive cavity pump;
 - implementation of robust control measures for the interim position, whilst permit variation would be determined;
 - relevant NRW guidance; and
 - Best Available Techniques Reference Documents (“BREFs”) to be considered.

2. LISTED ACTIVITIES

2.1. Current Activities

2.1.1. The activities undertaken at the Installation are permitted Schedule 1 Activities under the EPR and are detailed in Table 1 below.

Table 1: Current Schedule 1 Activities

Schedule 1 Activity	Description of Specified Activity	Limits of Specified Activity
Section 6.8 A1(e)	Treatment and processing, of milk to produce dairy products (mozzarella). The quantity of milk received being more than 200 tonnes per day (average value on an annual basis)	Receipt of raw materials to dispatch of finished product. Maximum capacity limited to agreed figure provided in response to part (b) of IC17.
Section 5.4 A1(a)(i)	Treatment of process effluent in the effluent treatment plant. Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving one or more of the following activities (i) biological treatment	From receipt of process effluent to final discharge to Afon Teifi and dispatch of wastes.

2.1.2. The Directly Associated Activities (“DAAs”) currently permitted are detailed in Table 2.

Table 2: Directly Associated Activities

Description of DAA	Limits of Specified Activity
Raw Materials Storage	From receipt of raw materials to input to process. Excludes the storage of LFO and LNG.
Intermediate storage of partly processed materials	From receipt of raw materials to return to process
Finished products storage and packaging	From receipt of finished mozzarella products to dispatch from the permitted Installation
Steam generation: 2 x 5.33 MWth input data fuel boilers, fuelled on LNG or LFO. Used to supply steam via distribution vessels and pipework to product processing areas.	From receipt of fuel to dispatch of combustion products to air.
Storage and handling of liquid cleaning chemicals	From receipt of cleaning chemicals to their storage and subsequent use within the permitted Installation and their final disposal via the on-site effluent treatment plant.
Storage and handling of solid and liquid wastes	Production of wastes to dispatch from the permitted Installation for recovery or disposal elsewhere, including Sludge waste.

Table 2: Directly Associated Activities (cont.)

Description of DAA	Limits of Specified Activity
Glycol refrigeration plant	The whole refrigeration system including storage and handling of glycol refrigerant. Glycol is stored in one 4,700-litre tank
Storage and handling of LNG	From receipt of LNG to delivery to boilers, including tanker reception facilities, cryogenic storage tanks, re-gasification process and site gas distribution pipework.
Storage and handling of LFO	From receipt of LFO/Gas oil to delivery to boilers, including storage tanks and fuel oil distribution pipework.

2.2. Proposed Activities

2.2.1. No changes are proposed to the Schedule 1 Activities.

2.2.2. The following changes at the Installation are proposed:

- installation of two no. stainless-steel sludge tanks and Roto M561 progressive cavity pump which requires an update to the DAA Reference A8;
- removal of point source emission W3 - uncontaminated surface run-off as part of the SCL Project.

2.2.3. Detailed descriptions of all changes proposed as part of the expansion project is provided in Section 4.3. of this EPTR document.

3. MANAGEMENT TECHNIQUES

3.1. Overview of Environmental Management System

- 3.1.1. DP operate their own environmental management system (“EMS”), which although is not externally certified to ISO 14001, has been developed in accordance with ISO 14001 standard for environmental management, and in its completed format will be a system auditable to ISO 14001.
- 3.1.2. The system is made up of several internal procedures with the aim of creating a process that ensures good environmental performance and prevents environmental damage caused by normal and abnormal operations of the plant.
- 3.1.3. Dairy Partners has established a documented management system, which aims to:
- ensure compliance with all relevant legislation;
 - ensure compliance with the Installation’s Environmental Permit;
 - identifies, assesses and minimises the risks of pollution arising from the Installation’s activities;
 - comprises a range of written procedures that cover all aspects of the Installation’s activities;
 - identifies, sets, monitors and reviews environmental objectives and key performance indicators; and
 - includes a requirement to report annually on environmental performance, objectives, targets, and future planned improvements.

3.2. EMS Register of Documents

- 3.2.1. A copy of Dairy Partners’ EMS register of documents is provided in Appendix I.

3.3. Amendments to Environmental Management System

- 3.3.1. The EMS will be reviewed to take account of the variation to ensure it remains appropriate and effective. The principle anticipated changes are described below:
- update to the management system documents to take account of any additional Environmental Permit conditions (if required);
 - the Environmental Risk Assessment (“ERA”) (DPCW.01.09/ERA) will be used to inform the new risks and opportunities at the Installation and the Installation-specific operational risk assessments forming part of the EMS will be reviewed and any additional control required will be documented;
 - operational procedures will be reviewed to ensure they are aligned with the proposed changes to be introduced as part of the variation, especially to the accident management plan, noise management plan, odour management plan and spill procedures;
 - updates to the PPMR will be carried out to include the tanks and pump changes and their requirements for inspection and maintenance;
 - employees will be trained in the updated Environmental Management System and associated operational procedures; and
 - all changes to the EMS will be documented and communicated to all employees.

4. OPERATING TECHNIQUES

4.1. Technical Standards

4.1.1. **European Legislation** - The following European Legislation will be used to inform the variation application:

- the Industrial Emissions Directive (“IED”) is intended to be a single legislative instrument for permitting compliance and enforcement of environmental legislation across all member states. The requirements of the IED will therefore be considered relevant at this time; and
- the Food, Drink and Milk Industries BREF (December 2019) will be considered as it covers Installations associated with the production of milk and milk products for human consumption.

4.1.2. **National Legislation** – NRW implement the requirements of the IED via the EPR and have provided guidance documents to assist in the preparation of Environmental Permit applications and the ongoing management of permitted Installations. NRW’s ‘*How to comply with your environmental permit*’ (Version 8, October 2014) has been considered in this variation application.

4.2. Current Activities

4.2.1. Existing Design and Purpose

4.2.2. The existing polypropylene sludge tanks have reached the end of their serviceable life, with inspections in late 2025 identifying age related deterioration of roofs and hatches. The Operational Viability Risk Assessment (see Appendix II) demonstrated that the current tanks no longer provide the level of containment or environmental assurance required for ongoing compliant operation.

4.2.3. Consequently, to ensure long term environmental compliance, odour control reliability, and operational resilience, the operator proposes to replace the existing polypropylene tanks with new stainless steel sludge tanks, which is now being considered as part of this application.

4.2.4. In parallel, the operator has strengthened its maintenance prioritisation process and formally designated sludge storage and odour control assets as critical environmental infrastructure, ensuring robust ongoing management until the new tanks are installed (see Appendix III).

4.3. Proposed Activities

4.3.1. New Design and System Improvements

4.3.2. The activities that will be varied as part of this variation applications are as follows:

- Planned Sludge Tank and Pump System replacement and upgrade; and
- decommissioning of W3 outlet of uncontaminated surface run-off and removal of the point source W3 from the Permit.

4.3.3. The new tanks will:

- Provide improved structural integrity and longer asset life;
- Reduce the risk of odour escape and uncontrolled emissions;
- Enhance containment performance and environmental protection;
- Align sludge storage with current best practice and compliance expectations; and
- Remove reliance on interim control measures required for the existing tanks.

4.3.4. Planned Sludge Tank and Pump System Upgrade – Technical Summary

4.3.5. As part of Dairy Partners' ongoing Installation development programme, two new above-ground stainless steel sludge storage tanks, each with a capacity of 32,000 litres, are scheduled for Installation once this variation application is determined. These tanks form part of the Installation's long-term strategy to optimise sludge handling and align with evolving best practice.

4.3.6. The existing tanks are double-walled polypropylene. The proposed stainless-steel tanks provide a different form of risk control through robust material selection, structural integrity, elevated, fully enclosed transfer arrangements, and hard-piped stainless-steel connections to odour abatement. These measures are being selected specifically to improve odour control efficiency, lifespan of new infrastructure, remove the risk of leak detection and maintenance failures associated with the existing assets. As such, the change should be considered in the context of overall risk reduction.

4.3.7. Tank Design and Purpose

4.3.8. The new tanks will be constructed from stainless steel, incorporating:

- Conical bases for efficient discharge; and
- Stainless steel pipework for all inlets, outlets, and breather connections.

4.3.9. The tanks are designed to provide dedicated storage for sludge generated by the DAF process, which is not directed into the on-treatment system. This material will be collected and transported off-by an approved waste contractor.

4.3.10. Odour and Emissions Control

4.3.11. Both tanks will be fitted with carbon filtration units on all breather and vent lines.

4.3.12. These controls will be detailed within the updated Noise Management Plan and Odour Management Plan and will reflect Best Available Techniques ("BAT") for the control of emissions from enclosed sludge systems.

4.4. Containment and Infrastructure Integration

4.4.1. The tanks will be integrated into the Installation's wider ETP secondary containment lagoon project, which is due for completion in September 2026.

4.4.2. Until that time, suitable interim containment controls will be maintained, in line with CIRIA C736 principles, to ensure environmental protection and compliance (See Appendix IV).

4.4.3. Pumping and Transfer System

4.4.4. Sludge will be transferred via a Roto M561 progressive cavity pump, selected for its suitability with viscous products. Updates to the Sludge Transfer to Tanker procedures will be undertaken (SOP – 065) to ensure the new purpose and scope of the treated daily sludge for disposal will be reflected (See Appendix V).

4.4.5. The system offers a starting torque of 40 Nm, with a discharge potential of up to 17 m³/hr, dependent on operating pressure; low-pulsation pumping reduces wear on fittings and supports long-term reliability. All transfer lines will be stainless steel, ensuring system integrity and ease of cleaning.

4.4.6. Emission Point to Surface Waters

4.4.7. It is proposed that the decommissioning of outlet (W3) and removal of the point source emission to water within the Permit forms part of this variation application.

4.4.8. W3 is uncontaminated surface run-off (primarily from adjacent properties that naturally drain into the Installation). Following development of the SCL, it had already been identified for decommissioning as detailed in NRW Decision Document *EPR/WP3231NB/V004*, which states: *"the Operator has confirmed that emission point W3, currently used for surface water drainage, will be decommissioned following the development of the proposed containment system."*

4.4.9. As shown on the Installation Drawings (see Appendix IV), there have been containment capacity calculations based on exceedances during additional rainfall, surface water ingress and a 300mm freeboard, which demonstrates the Installation's proposed readiness for secondary containment during an escalated incident.

4.4.10. The new design which will replace the piped outfall (W3) which currently services the uncontaminated surface run-off (primarily from adjacent properties that naturally drain into the Installation) includes 100mm diameter perforated UPVC Filter Drains.

4.4.11. The drains shall provide enough available area and depth to contain maximum tank storage, storage volumes including rainfall events and any other escalated incident, along with the natural run-off from the adjacent properties that fall onto this land.

4.4.12. Planning considerations associated with the proposed replacement sludge tanks and related infrastructure are being addressed through the appropriate channels with the local Planning Authority as part of the wider project programme. Engagement with NRW has formed part of the permit variation process, and their input has been incorporated into the application.

5. EMISSIONS

5.1. Point Source Emissions to Air – Current Arrangements

5.1.1. There is one emission point to air, designated as A1, associated with the operation of a natural gas fired boiler.

5.2. Point Source Emissions to Air – Proposed Arrangements

5.2.1. There are no changes with regards to the emission point to air as part of this proposed variation application.

5.3. Point Source Emissions to Water (other than Sewer) – Current Arrangements

5.3.1. There is a point source emission to surface water (W1) by means of the treated effluent from the ETP. The wastewater originates from the process, such as boiler blowdown, ingredient processing and from the packaging hall.

5.3.2. Uncontaminated surface runoff is also permitted to be discharged to the surface water drainage network (W2 and W3).

5.4. Point Source Emissions to Water (other than Sewer) – Proposed Arrangements

5.4.1. It is proposed that W3 shall be removed as part of this permit variation application.

5.4.2. The W3 outlet has already been sealed and made redundant previously, with NRW already aware of this position. The current variation application is therefore seeking formal removal of W3 from the Permit, whilst the historic French drain arrangement is being removed/covered as part of the wider SCL works. The pipe will remain in situ under the SCL Project works.

5.4.3. As stated in Section 4.3.20, NRW are already supportive of this change from the decision document for the previous variation application issued.

5.4.4. There are no other changes to other point source emissions to water considered as part of this variation application.

5.5. Point Source Emissions to Sewer

5.5.1. There are no point source emissions to sewer considered as part of this variation application

5.6. Point Source Emissions to Land

5.6.1. There are no emissions to land considered as part of this variation application

5.7. Fugitive Emissions to Air

- 5.7.1. Fugitive emissions to air with regards to this permit variation application have been considered and covered in the Environmental Risk Assessment document (DPCW.01.09/ERA_Table 6).
- 5.7.2. The installation of the new stainless steel sludge tanks will be in accordance with the manufacturer's instructions.
- 5.7.3. Servicing of the sludge tank system and maintenance of the tanks along with the carbon filter system, new associated pipework and Roto M561 progressive capacity pump sludge transfer system will be undertaken as part of the documented planned maintenance schedule, which includes all plant and processing equipment. This will ensure optimal performance and to instigate any changes if deemed necessary.
- 5.7.4. Both tanks will be fitted with carbon filtration units on all breather and vent lines. All transfer lines will be stainless steel, due to it being a non-porous surface, it does not harbour odour-causing microbes and therefore allows for highly effective cleaning and stopping persistent smells from accumulation over time in comparison to plastic or concrete tanks.

5.8. Fugitive Emissions to Surface Water, Sewer and Land

- 5.8.1. There are no fugitive releases to surface water, sewer or to land considered as part of this variation application.

6. GENERAL REQUIREMENTS

6.1. Emissions Management

- 6.1.1. The ERA (Document Reference DPCW.01.09/ERA) has demonstrated that emissions of substances not controlled by emission limits (i.e. fugitive emissions) are not considered to be significant, consequently, an Emissions Management Plan is not required as part of this application.

6.2. Odour Management

- 6.2.1. The daily treated sludge is odorous in nature. Qualitative Risk Assessments have been undertaken (see Appendix VII) for both the current and the proposed stainless-steel tanks and associated pipework for all inlets, outlets, and breather connections, which are also stainless steel. Further to this, an Odour Management Plan is in place and shall be updated accordingly to detail the new sludge tanks and transfer system, following completion of NRW's current OMP review.

6.3. Noise Management

- 6.3.1. The daily treated sludge transfer system has the potential to generate noise. Consequently, a preliminary Noise Impact Plan ("NIP") has been submitted as part of this application (see Appendix VI); and updates to the current Noise Management Plan ("NMP") will be aligned with the NIP, following NRW Site Officer's completion of the current review. An updated BS4142 assessment will occur post-installation.

6.4. Pest Management

- 6.4.1. It is not considered that there will be a significant increase in the risk of pest nuisance as a result of this variation. Consequently, pest management control measures are not considered to be required as part of this application.

6.5. Fire Management

- 6.5.1. It is not considered that there will be a significant increase in the risk of fire as a result of this variation application. Consequently, the existing fire control measures detailed within the Installation's management system remain suitable and effective .

7. APPLICATION INSTALLATION CONDITION REPORT

- 7.1.1. There is no change to the current Site Condition Report (“SCR”) as part of this application as no changes to the Permit boundary are being proposed.

8. MONITORING

8.1. Monitoring of Point Source Emissions to Air

8.1.1. There are no change to the current monitoring requirements as part of this application.

8.2. Monitoring of Point Source Emission to Surface Water

8.2.1. There are no changes to the monitoring requirements as part of this variation application.

8.3. Monitoring of Point Source Emissions to Sewer

8.3.1. There are no changes to the monitoring requirements as part of this variation application.

8.4. Monitoring of Point Source Emissions to Land

8.4.1. There are no changes to the monitoring requirements as part of this variation application.

8.5. Monitoring of Fugitive Emissions to Air

8.5.1. Any changes to the monitoring requirements as part of this variation application have been identified in the updated Odour Risk Assessments (see Appendix VII) and will align with an updated Odour Management Plan ("OMP") once issued and installed.

9. RESOURCE EFFICIENCY AND CLIMATE CHANGE

9.1. Energy Efficiency Measures

- 9.1.1. A number of energy efficiency measures are implemented at the Installation, such as:
- ensuring regular inspection and maintenance of equipment and plant to achieve optimum efficiency;
 - optimising operational planning to streamline equipment and plant use;
 - all new lighting is energy efficient light-emitting diode (“LED”);
 - optimising steam distribution systems;
 - use of variable speed driver (“VSD”) inverters for motor drive and pumps;
 - two of the three air compressors possess VSD;
 - mains cold water and cooling water pumps are VSD;
 - minimising blowdown from the boilers;
 - CiP systems involve water re-use and there are closed loop water systems for pasteuriser heating;
 - CiP uses interlocked chemical dosing pumps to control when dosing takes place; and
 - employees will be trained in the importance of energy management and basic energy saving practices.

9.2. Energy Consumption

- 9.2.1. There are no considerations for further energy consumption reduction measures as part of this application, beyond what is already specified within the EMS, which is under constant review, and the document in Appendix I of this report.

9.3. Climate Change Agreement and Risk Assessment

Dairy Partners has entered into a Climate Change Agreement (“CCA”). The CCA demonstrates Dairy Partners’ commitment to reducing energy consumption and associated carbon dioxide (“CO₂”) emissions (see Appendix VIII).

9.4. Raw Material Justification

- 9.4.1. There are no considerations for changes to raw material usage nor change in chemicals as part of this application, beyond what is already specified within the EMS, which is under constant review.

9.5. Waste Minimisation

- 9.5.1. There are no considerations for further waste minimisation as part of this application, beyond what is already specified within the EMS, which is under constant review.

10. COMPLIANCE WITH BAT CONCLUSIONS

10.1. Overview

- 10.1.1. It is considered that the techniques that will be in use at the Installation will constitute Best Available Techniques (“BAT”) and will be appropriate and proportionate for the scale of the activities at the Installation and the risks that are posed to the environment by these activities.
- 10.1.2. The BAT Requirements for the Installation and proposed variation have been taken from the BREF for Food, Drink and Milk Industries (December 2019). These BAT conclusions apply without prejudice to other relevant legislation, such as food safety.
- 10.1.3. A demonstration of compliance with applicable BAT specifically as part of this permit variation application is provided in Table 3.

Table 3: Food, Milk and Drink Industries BREF- General BAT Conclusions

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System		
1	<p>In order to improve the overall environmental performance, BAT is to elaborate and implement an environmental management system (“EMS”) that incorporates all of the following features:</p> <ol style="list-style-type: none"> i. commitment, leadership, and accountability of the management, including senior management, for the implementation of an effective EMS; ii. an analysis that includes the determination of the organisation's context, the identification of the needs and expectations of interested parties, the identification of characteristics of the installation that are associated with possible risks for the environment (or human health) as well as of the applicable legal requirements relating to the environment; iii. development of an environmental policy that includes the continuous improvement of the environmental performance of the installation; iv. establishing objectives and performance indicators in relation to significant environmental aspects, including safeguarding compliance with applicable legal requirements; v. planning and implementing the necessary procedures and actions (including corrective and preventive actions where needed), to achieve the environmental objectives and avoid environmental risks; vi. determination of structures, roles and responsibilities in relation to environmental aspects and objectives and provision of the financial and human resources needed; vii. ensuring the necessary competence and awareness of staff whose work may affect the environmental performance of the installation (e.g. by providing information and training); viii. internal and external communication; ix. fostering employee involvement in good environmental management practices; x. establishing and maintaining a management manual and written procedures to control activities with significant environmental impact as well as relevant records; xi. effective operational planning and process control; xii. implementation of appropriate maintenance programmes; xiii. emergency preparedness and response protocols, including the prevention and/or mitigation of the adverse (environmental) impacts of emergency situations; xiv. when (re)designing a (new) installation or a part thereof, consideration of its environmental impacts throughout its life, which includes construction, maintenance, operation and decommissioning; 	<p>EPTR - Section 3, along with internal documents</p> <p>DP Environmental Policy, EP-001 – EMS, EP-007 – Environmental Awareness and Site Responsibilities Objectives,</p> <p>EP-006 – Env Monitoring and Audits</p> <p>SOP 052 and 053 – Handling Env Non-compliance and Complaints,</p> <p>SOP-MCERTS -001 - 013 – MCERTS SOPs, EP-017 – Accident Management Plan,</p> <p>EP-005 – Spill Response Plan,</p> <p>EMS/007 – Env Management Review</p>

Table 3: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System (Cont.)		
1	<p>To improve the overall environmental performance, BAT is to elaborate and implement an environmental management system (“EMS”) that incorporates all the following features:</p> <ul style="list-style-type: none"> xv. implementation of a monitoring and measurement programme, if necessary, information can be found in the Reference Report on Monitoring of Emissions to Air and Water from IED Installations; xvi. application of sectoral benchmarking on a regular basis; xvii. periodic independent (as far as practicable) internal auditing and periodic independent external auditing to assess the environmental performance and to determine whether the EMS conforms to planned arrangements and has been properly implemented and maintained; xviii. evaluation of causes of nonconformities, implementation of corrective actions in response to nonconformities, review of the effectiveness of corrective actions, and determination of whether similar nonconformities exist or could potentially occur; xix. periodic review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness; xx. following and considering the development of cleaner techniques. <p>Specifically for the food, drink and milk sector, BAT is to also incorporate the following features in the EMS:</p> <ul style="list-style-type: none"> i. noise management plan (see BAT 13); ii. odour management plan (see BAT 15); iii. inventory of water, energy and raw materials consumption as well as of wastewater and waste gas streams (see BAT 2); iv. energy efficiency plan (see BAT 6a). 	EPTR - Section 3 and as above documents.
2	<p>To increase resource efficiency and to reduce emissions, BAT is to establish, maintain and regularly review (including when a significant change occurs) an inventory of water, energy and raw materials consumption as well as of wastewater and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates all the following features:</p> <ul style="list-style-type: none"> i. information about the food, drink and milk production processes, including: <ul style="list-style-type: none"> a) simplified process flow sheets that show the origin of the emissions; b) descriptions of process-integrated techniques and wastewater/waste gas treatment techniques to prevent or reduce emissions, including their performance. 	EPTR - Section 3 & 9, SOP-MCERTS -001 - 013 – MCERTS SOPs, HACCP, EP-007 – Environmental Awareness and Site Responsibilities Objectives, Daily Effluent Monitoring Sheet, MCERTS Flowmeter

Table 3: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Environmental Management System (Cont.)		
2	ii. information about energy consumption and usage, the quantity of raw materials used, as well as the quantity and characteristics of residues generated, and identification of actions for continuous improvement of resource efficiency (see for example BAT 6 and BAT 10). identification and implementation of an appropriate monitoring strategy with the aim of increasing resource efficiency, considering energy, water and raw materials consumption. Monitoring can include direct measurements, calculations or recording with an appropriate frequency. The monitoring is broken down at the most appropriate level (e.g. at process or plant/installation level).	EPTR - Section 3 & 9, As above documents.
Energy Efficiency		
6	In order to increase energy efficiency, BAT is to use BAT 6a a) an energy efficiency plan, as part of the environmental management system (see BAT 1), entails defining and calculating the specific energy consumption of the activity (or activities), setting key performance indicators on an annual basis (for example for the specific energy consumption) and planning periodic improvement targets and related actions. The plan is adapted to the specificities of the installation.	EPTR -Section 9.1, EP-007 – Environmental Awareness and Site Responsibilities Objectives. New Sludge Transfer Capacity pump will be included in energy management audit process.
Resource Efficiency		
10	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) phosphorous recovery as struvite; f) use of wastewater for land spreading;	EPTR – Section 5.6, Appendix V – Updated SOP-065

Table 3: Food, Milk and Drink Industries BREF- General BAT Conclusions (Cont.)

BAT Ref No.	BAT Requirement	Section of Supporting Documents
Noise		
13	<p>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, e.g. complaints; • a noise reduction programme designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures. <p>Only applicable to cases where a noise nuisance at sensitive receptors is expected and/or has been substantiated.</p>	<p>EPTR – Section 6.3. and Environmental Risk Assessment (ERA) DPCW.01.09/ERA, Appendix V – Updated SOP-065, Appendix VI – Noise Implementation Plan</p>
14	<p>To prevent or, where that is not practicable, to reduce noise emissions, BAT is to use one or a combination of the techniques given.</p>	
Odour		
15	<p>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 the following elements:</p> <ul style="list-style-type: none"> • a protocol containing actions and timelines; • a protocol for conducting odour monitoring. It may be complemented by measurement/estimation of odour exposure or estimation of odour impact; • a protocol for response to identified odour incidents, e.g. complaints; • an odour prevention and reduction programme designed to identify the source(s) to measure/estimate odour exposure, to characterise the contributions of the sources; and to implement prevention and/or reduction measures. <p>Only applicable to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.</p>	<p>EPTR – Section 6.2. & ERA DPCW.01.09/ERA, Appendix VII – Updated Odour Risk Assessments</p>

APPENDIX I

EMS REGISTER OF DOCUMENTS

APPENDIX II

DP 139 – OPERATIONAL VIABILITY RISK ASSESSMENT OF SLUDGE STORAGE TANKS

APPENDIX III INTERIM MANAGEMENT OF EXISTING SLUDGE TANKS

APPENDIX IV PROPOSED SECONDARY CONTAINMENT LAGOON PLAN

APPENDIX V

UPDATED SOP-065 SLUDGE TRANSFER TO TANKER PROCEDURE

APPENDIX VI

PROPOSED UPDATED NOISE IMPLEMENTATION PLAN

APPENDIX VII

QUALITATIVE ODOUR RISK ASSESSMENTS

APPENDIX VIII CLIMATE CHANGE AGREEMENT