

# Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

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**The First Milk Cheese Company Limited**

**Haverfordwest Creamery  
Pembroke Road  
Merlins Bridge  
Haverfordwest  
Pembrokeshire  
SA61 1JN**

Permit number

**EPR/XP3830UR**

# **Haverfordwest Creamery**

## **Permit number EPR/XP3830UR**

### **Introductory note**

#### **This introductory note does not form a part of the permit**

The main features of the permit are as follows.

Haverfordwest Creamery is located in Merlins Bridge, less than 1 km south of Haverfordwest town centre. The installation covers an area of approximately six acres within a predominantly residential setting to the south of Haverfordwest. The closest residential receptors are located within 100 m of the installation boundary.

The site is within 10 km of the Pembrokeshire Marine Special Area of Conservation (SAC), West Wales Marine SAC, Cleddau Rivers SAC and Pembrokeshire Bat Sites and Bosherton Lakes SAC. The site is within 2 km of Western Cleddau River Site of Special Scientific Interest (SSSI), Gas Works Lane Section (Haverfordwest) SSSI and Milford Haven Waterway SSSI. The site is approximately 0.7 km to the south of Haverfordwest Air Quality Management Area, which is designated for annual NO<sub>x</sub>.

The key operations regulated in this permit are the processing of milk to produce cheese and whey products, the effluent treatment process and associated combustion processes. Some refrigeration activity is carried out within the installation to preserve food materials.

The main activities of cheese production include: receipt and storage of milk, which is then pasteurised; producing curds and whey by adding bacteria and rennet which coagulates the milk. The curds are then separated, cooked, compressed and cut to form cheese chips. These are then salted, compressed to form large blocks of cheese under vacuum and then cut into 20kg blocks. The cheese is then packed, stored and dispatched.

The separated whey is used to produce skimmed whey and whey cream. The whey cream is further treated by pasteurisation and ageing. The site is also authorised for the packing of butter and pasteurisation of skimmed whey. This can be concentrated to 32 to 35% suspended solids by evaporation.

There are four emission points to air, all are from combustion processes. Three emission points (A1 to A3) are from three natural gas fuelled boilers with an aggregated thermal input of 24 MW. The remaining emission point (A4) is from a natural gas fuelled Combined Heat and Power (CHP) engine, with a thermal input of 2.7 MW, this is classed as a new Medium Combustion Plant and an excluded Specified Generator (SG) as part of an installation as defined in Chapter II of the Industrial Emissions Directive.

Foul water, process condensate effluent and contaminated surface water are treated at a dedicated, on-site effluent treatment plant (ETP) which is included within this permit.

There are three emission points to surface water, two are of uncontaminated surface water run-off, one to Merlins Brook (W1) and one to a soakaway from two land drains (W3). The remaining emission point to surface water (W2) is from the ETP into the Western Cleddau river via a pipeline.

To offset the nutrient input from the W2 emission point into a designated waterway (Cleddau Rivers SAC & Pembrokeshire Marine SAC), the operator has implemented a

scheme which delivers nutrient efficiency savings at a group of dairy farms which supply milk to Haverfordwest Creamery. An agreed programme of on-farm mitigation methods are employed to offset the nutrient (nitrate and phosphate) and sediment load discharged into the Western Cleddau River. The pollution reductions at scheme member farms must equal, or be greater than, the amount of nutrients discharged by the effluent plant to the Western Cleddau.

The site participates in a Climate Change Agreement for the Dairy Sector (reference: DIAL/T00061).

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application received BV7788ID	08/03/2005	Application for permit
Additional information received	25/08/2005 12/09/2005	
Permit determined BV7788ID	12/10/2005	
Permit transfer application received	12/02/2007	
Additional information received	24/05/2007	
Permit transferred	02/07/2007	
Application EPR/XP3830UR/V002 (PAS Ref BP332KU)	Duly made 31/12/2009	
Additional information received	27/05/2010	
Additional information received	17/06/2010	
Variation determined EPR/XP3830UR/V002	29/07/2010	
Application EPR/XP3830UR/V003 (variation and consolidation)	Duly made 20/03/2013	Application to add an effluent treatment plant and to update the permit to modern conditions.
Variation determined EPR/XP3830UR/V003	29/07/2019	Varied and consolidated permit issued in modern condition format.
Application EPR/XP3830UR/V004	Duly made 18/12/2019	Application too add a Standard Rules Permit: SR2018 No7 Medium Combustion Plant within current installation boundary.
Additional information received	13/01/2020	Information regarding details of the Medium Combustion Plant.
Variation determined EPR/XP3830UR/V004	04/02/2020	Varied permit issued to The First Milk Cheese Company Limited.
Application EPR/XP3830UR/V005 (variation and consolidation)	Duly made 26/05/2020	Application to convert SR2018 No7 Medium Combustion Plant to bespoke Medium Combustion Plant following the revision of the SR2018 No7 standard rules permit.
Additional information received	09/06/2020	Information regarding detailed air dispersion modelling.
Variation determined EPR/XP3830UR/V005	21/07/2020	Varied and consolidated permit issued to The First Milk Cheese Company Limited.

End of introductory note

# Permit

The Environmental Permitting (England and Wales) Regulations 2016

**Permit number**  
**EPR/XP3830UR**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/XP3830UR/V005 authorising

**The First Milk Cheese Company Limited** (“the operator”),  
whose registered office is

**The Lake District Creamery**  
**Station Road**  
**Aspatria**  
**Wigton**  
**Cumbria**  
**CA7 2AR**

company registration number **05893846**

to operate an installation at

**Haverfordwest Creamery**  
**Pembroke Road**  
**Merlins Bridge**  
**Haverfordwest**  
**Pembrokeshire**  
**SA61 1JN**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
<b>David Poole</b>	<b>21/07/2020</b>

Authorised on behalf of Natural Resources Wales

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.
- 2.2.2 For the following activity, reference A7 in schedule 1, table S1.1 no MCP shall be operated beyond the site of the grid reference specified for it in schedule 1, table S1.1 of the permit.

### **2.3 Operating techniques**

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.
- (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.5 For the following activity reference A7 in schedule 1, table S1.1 the activity shall be operated using the techniques and, in the manner, described in schedule 1, table S1.2A.

### **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

## **2.5 Pre-operational conditions**

- 2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

# **3 Emissions and monitoring**

## **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

## **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

## **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.



## **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

## **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by Natural Resources Wales.
- 3.5.5 For the following activity, reference A4 in schedule 3, table S3.1 the first monitoring measurements will be carried out within four months of the issue date of the permit variation or the date when the MCP is first put into operation whichever is later.
- 3.5.6 For the following activity, reference A4 in schedule 3, table S3.1 monitoring shall not take place during periods of start up or shut down.

# **4 Information**

## **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

- (d) be retained, unless otherwise agreed in writing by Natural Resources Wales, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) off-site environmental effects; and
    - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by Natural Resources Wales.
- 4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation for each MCP and/or generator.

## 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
  - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year. The report(s) shall include as a minimum:
  - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production / treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to Natural Resources Wales, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
  - (i) inform Natural Resources Wales,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;

- (b) in the event of a breach of any permit condition the operator must immediately—
    - (i) inform Natural Resources Wales, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
  - (b) any change in the operator's name(s) or address(es).
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) Natural Resources Wales shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 Natural Resources Wales shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, Natural Resources Wales shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;

- (b) a decision by either the operator or the Secretary of State to terminate the agreement;  
and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.

# Schedule 1 - Operations

**Table S1.1 activities**

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	S6.8 A(1)(e) – Treating and processing milk, the quantity of milk received being more than 200 tonnes per day (average value of an annual basis).	Processing of milk to produce cheese and butter products.	From receipt and storage of raw materials to despatch of finished product from the installation.
A2	S5.4 A(1)(a)(i) - Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving one or more of the following activities – (i) biological treatment.	Treatment of process effluent.	From receipt of crude and condensate effluent from the cheese plant to discharge to Western Cleddau.

## Directly Associated Activity

A3	Directly associated activity	Steam and electrical power supply – combustion of natural gas in three boilers with an aggregated thermal input of 24 MWth.	From receipt of natural gas fuel to release of combustion products to air.
A4	Directly associated activity	Storage and handling of wastes	From generation of wastes to despatch of wastes.
A5	Directly associated activity	Refrigeration of raw materials and finished products.	From receipt and storage of raw materials to despatch of finished product from the installation.
A6	Directly associated activity	Odour control unit - Operation of an air extraction system and biological filter to control odour from the sludge treatment process.	From extraction of air from the sludge building and sludge tank, through the biological odour control filter.

## Medium Combustion Plant

Activity reference	Activity listed in the EP Regulations	Description of MCP and/or Specified Generator	Limits of specified activity
A7 NGR: SM 94846 14458	Schedule 25A – Medium Combustion Plant as detailed in Schedule 8 and Specified Generator that is excluded	1No. 2.7 MWth input Combined Heat and Power Engine fuelled on natural gas	From receipt of fuel to release of combustion products to air.  Operating hours not restricted.

**Table S1.2 Operating techniques**

<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to questions 2.1 and 2.2 given in pages 9 to 40 of the application.	08/03/2005
Variation Application	Variation Application sections 1.1 – 1.9, 2.0 and 3.0. Non-technical summary Site Plan	31/12/2009
Response to request for further information	Response to Schedule 5 – Items 2 - 6	27/05/2010
Variation Application EPR/XP3830UR/V003	Section M – Non technical summary of the intended plant design Section O – Nitrate Management Plans for First Milk farmers Section 1 – Emergency preparedness and critical incident management plans Section 2 – Raw materials and chemical inventory	20/03/2013
Variation application EPR/XP3830UR/V005	Responses to questions 2b, 3d, 4, 5a and 6 of Form C2 including all supporting documentation. Responses to questions 1a, 1b, 2, 3a, 3b, 4a, 4b, 6a, 6b, 6c, 7, Appendix 8 of Form C3 including all supporting documentation.	21/05/2020
Response to Schedule 5 Notice dated 03/06/2020	Response to Schedule 5 Notice – document reference: CE-HW-1730-RP01-Final, Rev A	09/06/2020

**Table S1.2A Operating techniques for Medium Combustion Plant as detailed in Schedule 8**

<b>Description</b>
Each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this
The operator must keep periods of start-up and shut-down of each MCP as short as possible
There must be no persistent emission of 'dark smoke' as defined in Section 3(1) of The Clean Air Act 1993

**Table S1.3 Improvement programme requirements**

<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC1	On agreement of pre-operational condition 2 (POC2) the Operator will provide a progress report based on the agreed mitigation report.	Complete
IC2	The Operator shall submit to Natural Resources Wales, for approval, a revised odour management plan that incorporates and identifies potential sources of odour from the new effluent treatment plant.	Complete
IC3	The Operator shall submit to Natural Resources Wales, for approval, a revised noise management plan that incorporates and identifies potential sources of noise from the new effluent treatment plant.	Ongoing
IC4	The Operator shall submit to Natural Resources Wales, for approval, a revised emissions management plan that incorporates and identifies potential sources of fugitive emissions from the new effluent treatment plant.	Withdrawn
IC5	The Operator shall submit to Natural Resources Wales details of the conversion to natural gas for the emission points A1, A2 and A3 and the associated timeframe for the conversion.	Complete

**Table S1.4 Pre-operational measures for future development**

Reference	Operation	Pre-operational measures	Status
POC 1	Effluent treatment plant	The Operator shall provide to Natural Resources Wales details of the soil investigation undertaken as part of the borehole survey for the effluent treatment plant and the associated pipeline. This information will form part of the site condition report submitted as part of the variation application EPR/XP3830UR/V003.	Complete
POC 2	Effluent treatment plant	<p>The Operator shall submit a report, for agreement with Natural Resources Wales, detailing the mitigation measures to be adopted by the farms linked to the proposed scheme. The report will consist of, but not be limited to, the following requirements:</p> <ol style="list-style-type: none"> <li>1) Scheme scope and methodology.</li> <li>2) Organogram detailing roles and responsibilities.</li> <li>3) Details of the participating farms.</li> <li>4) Details of the measures to be employed at the farms.</li> <li>5) Methodology of how a baseline will be set to enable comparison.</li> <li>6) Timeframe for implementation.</li> <li>7) How reductions will be measured / monitored at each farm.</li> <li>8) Frequency of review to confirm the status /summary of the measures implemented on each farm (to demonstrate continued compliance)</li> <li>9) List of guidance to be utilised to calculate or measure the off-set.</li> <li>10) Contingency measures. For example if a farm leaves the scheme.</li> <li>11) Collation and reporting of information.</li> </ol> <p>The scheme must ensure that pollution reductions at farms within the scheme will equal, or be greater than, the amount of nutrients discharged by the effluent plant to the Cleddau Catchment.</p>	Ongoing
POC 3	Effluent treatment plant	The Operator will submit plans, for agreement with Natural Resources Wales, detailing the associated timelines for the commissioning of the new effluent treatment plant (activity reference A2).	Complete

## Schedule 2 - Waste types, raw materials and fuels

**Table S2.1 Raw materials and fuels**

Raw materials and fuel description	Specification
Raw milk	Maximum quantity 1,000,000 litres



## Schedule 3 – Emissions and monitoring

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 on-site plan FM-C-06 Site Plan 19/05/2020	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Boiler no.1 (600 boiler)	No limit set	Periodic	Annually	MCERTS BS EN 14792
A2 on site plan FM-C-06 Site Plan 19/05/2020	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Boiler no.2 (800 boiler)	No limit set	Periodic	Annually	MCERTS BS EN 14792
A3 on site plan FM-C-06 Site Plan 19/05/2020	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Boiler no.3 (Danks boiler)	No limit set	Periodic	Annually	MCERTS BS EN 14792
A4 on site plan FM-C-06 Site Plan 19/05/2020	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	2.7 MWth input CHP engine	95 mg/m <sup>3</sup> <sup>Note 1</sup>	Periodic	Annually <sup>Note 2</sup>	MCERTS BS EN 14792
	Carbon monoxide		No limit set <sup>Note 1</sup>	Periodic	Annually <sup>Note 2</sup>	MCERTS BS EN 15058

Note 1: Monitoring requirements are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases at a standardised O<sub>2</sub> content of 6 % for solid fuels, 15 % for engines and gas turbines and 3 % all other MCPs

Note 2: As per condition 3.5.5, the first monitoring measurements will be carried out within four months of the issue date of the permit variation or the date when the MCP is first put into operation whichever is later

**Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on site plan SP04 and SP05 14/01/05. NGR 94651454	No parameters set	Uncontaminated site drainage water from site to Merlins Brook	No limit set	-	-	-
W2 on site plan in schedule 7. Location 196342, 214759.	Maximum daily discharge volume	Discharge from effluent treatment plant activity reference A2	2500 m³/day	Total daily volume	Continuous	Flow meter
	Maximum rate of discharge		120 m³/hr	Instantaneous	Continuous	Flow meter
	Temperature		35 °C	Absolute maximum	Continuous	Standard thermocouple
	Biochemical oxygen demand		40 mg/L	Absolute maximum	Weekly	BS EN 1899-1
			20 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	Total suspended solids		60 mg/L	Absolute maximum	Weekly	BS EN 872
			30 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	Ammonia		10 mg/L	Absolute maximum	Weekly	BS EN ISO 11732
			3.5 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	Total phosphates		5 mg/L	Absolute maximum	Weekly	BS EN ISO 15681-1
			3 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	Iron		10 mg/L	Absolute maximum	Weekly	BS EN ISO 11885
			5 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	Aluminium		2 mg/L	Absolute maximum	Weekly	BS EN ISO 11885
			1 mg/L	95 <sup>th</sup> percentile <sup>Note 1</sup>		
	pH		6 - 9	Absolute maximum	Continuous	BS ISO 10523
WL1 on site plan SP05 14/01/05. East side of site	No parameters set	Discharge of two uncontaminated land drains to one soakaway	No limit set	-	-	-

Note 1: For 95% of all measured values according to look up table

**Table S3.3 Annual limits**

<b>Substance</b>	<b>Medium</b>	<b>Limit (including unit)</b>
Mercury and its compounds	Water	228g – Compliance based on mass balance calculation
Cadmium and its compounds	Water	96g – Compliance based on mass balance calculation

## Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4 <sup>Note 1</sup>	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W2	Every 6 months	1 January, 1 July

Note 1: As required by condition 3.5.5, the first monitoring measurements of A4 will be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation whichever is later

Table S4.2: Annual production	
Parameter	Units
Production of dairy products	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh
Potable water usage	Annually	tonnes
Non potable water usage	Annually	tonnes
Waste disposal and/or recovery	Annually	tonnes
Mass of ammonia released to water	Annually	tonnes
Mass of refrigerants released	Annually	tonnes
Annual report with the amount of nitrates, suspended solids and phosphates reduced from the farm nutrient efficiency (offset) scheme.	Annually	kg

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	21/07/20
Water	Form water 1 or other form as agreed in writing by Natural Resources Wales	21/07/20
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	21/07/20
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	21/07/20
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	21/07/20

# Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

*“accident”* means an accident that may result in pollution.

*“application”* means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

*“authorised officer”* means any person authorised by Natural Resources Wales under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

*“background concentration”* means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

*“building”* means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

*“combined heat and power”* or *“CHP”* or *“Cogeneration”* means the simultaneous generation in one process of thermal energy and electrical or mechanical energy

*“disposal”* or *“D”* means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

*“emissions to land”* includes emissions to groundwater.

*“EP Regulations”* means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

*“emissions of substances not controlled by emission limits”* means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

*“first put into operation”* means that the plant must have been fired with its design fuel up to its full load. This can be, but does not have to be, during commissioning

*“groundwater”* means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

*“hazardous property”* has the meaning in Annex III of the Waste Framework Directive

*“hazardous waste”* has the meaning given in the Hazardous Waste (Wales) Regulations 2005 (as amended)

*“hazardous substance”* means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

*“Industrial Emissions Directive”* means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

*“Look up table”* The limit for any of the relevant parameters set out in tables S3.2 may be exceeded where: in a series of samples of the discharge taken at regular but randomised intervals in a period of 12 consecutive months as listed in the look up table, no more than the relevant number of samples, as listed in column 2, exceed the applicable limit for that relevant parameter.

**Look up table**

Number of samples taken in any period of 12 months	Maximum number of samples permitted to exceed limit for given determinand
4–7	1
8–16	2
17–28	3
29–40	4
41–53	5
54–67	6
68–81	7
82–95	8
96–110	9
111–125	10

*“mass balance calculation”* means that for the purposes of demonstrating compliance or non-compliance with a specified limit the release shall be calculated. Annual mass releases for Mercury and Cadmium shall be calculated from the maximum potential concentration of the metal present as contamination multiplied by the volume of the chemicals used on site during the Year. An allowance may be deducted for any proportion of the chemicals used that can be demonstrated not to have reached the emission point. The concentration of Mercury and Cadmium shall be calculated from the annual mass release and the volume of effluent discharged during the Year.

*“MCERTS”* means the Environment Agency’s Monitoring Certification Scheme.

*“medium combustion plant” or “MCP”* means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW

*“Medium Combustion Plant Directive” or “MCPD”* means Directive 2015/2193/EU of the European Parliament and of the Council of the limitation of emissions of certain pollutants into the air from medium combustion plants.

*“Natural gas”* means naturally occurring methane with no more than 20% by volume of inert or other constituents

*“operating hours”* means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods

*“quarter”* means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

*“specified generator” or “SG”* means has the meaning given in paragraph 2(1) of Schedule 25B of the EP Regulations

*“year”* means calendar year ending 31 December.

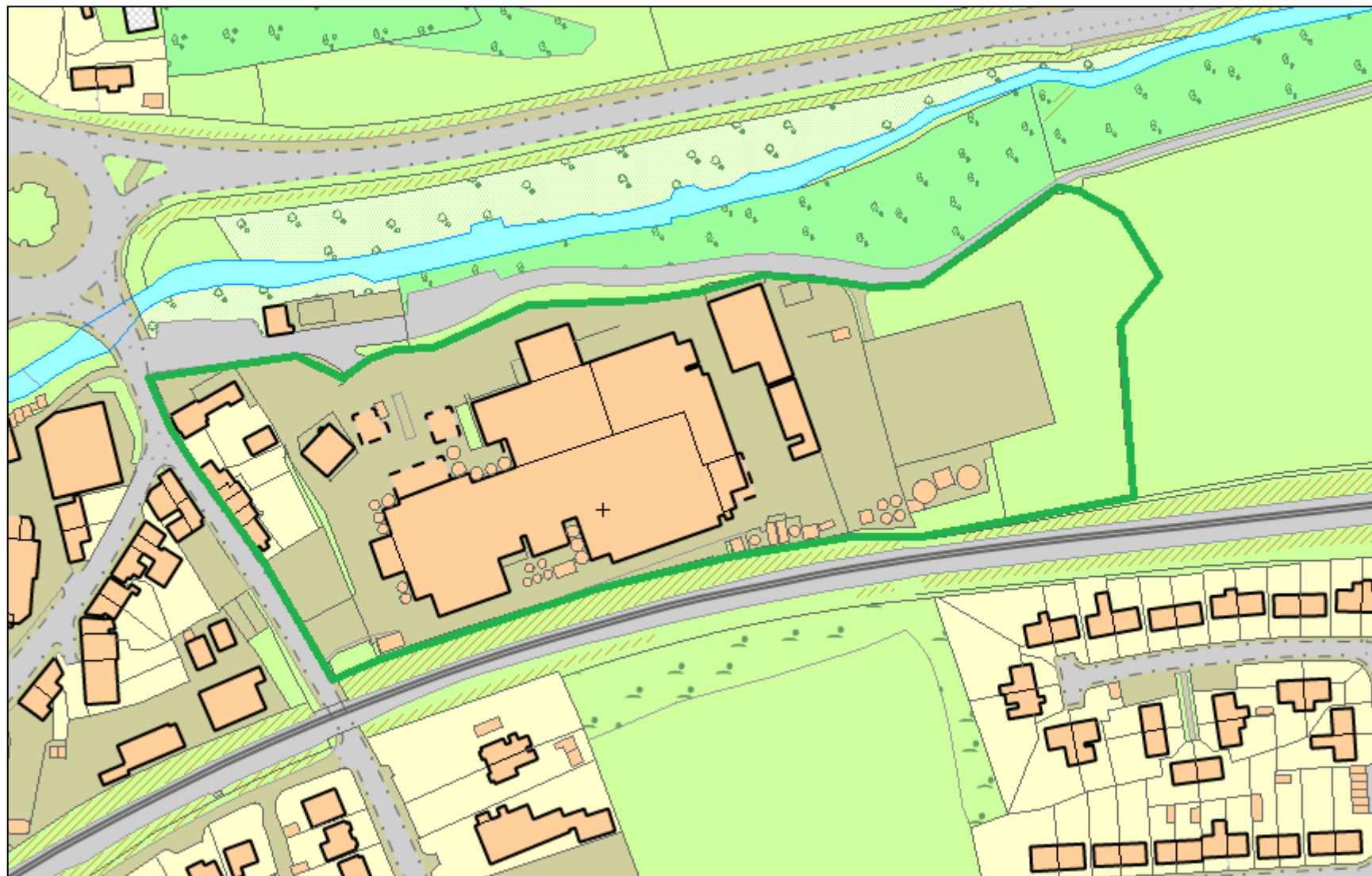
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

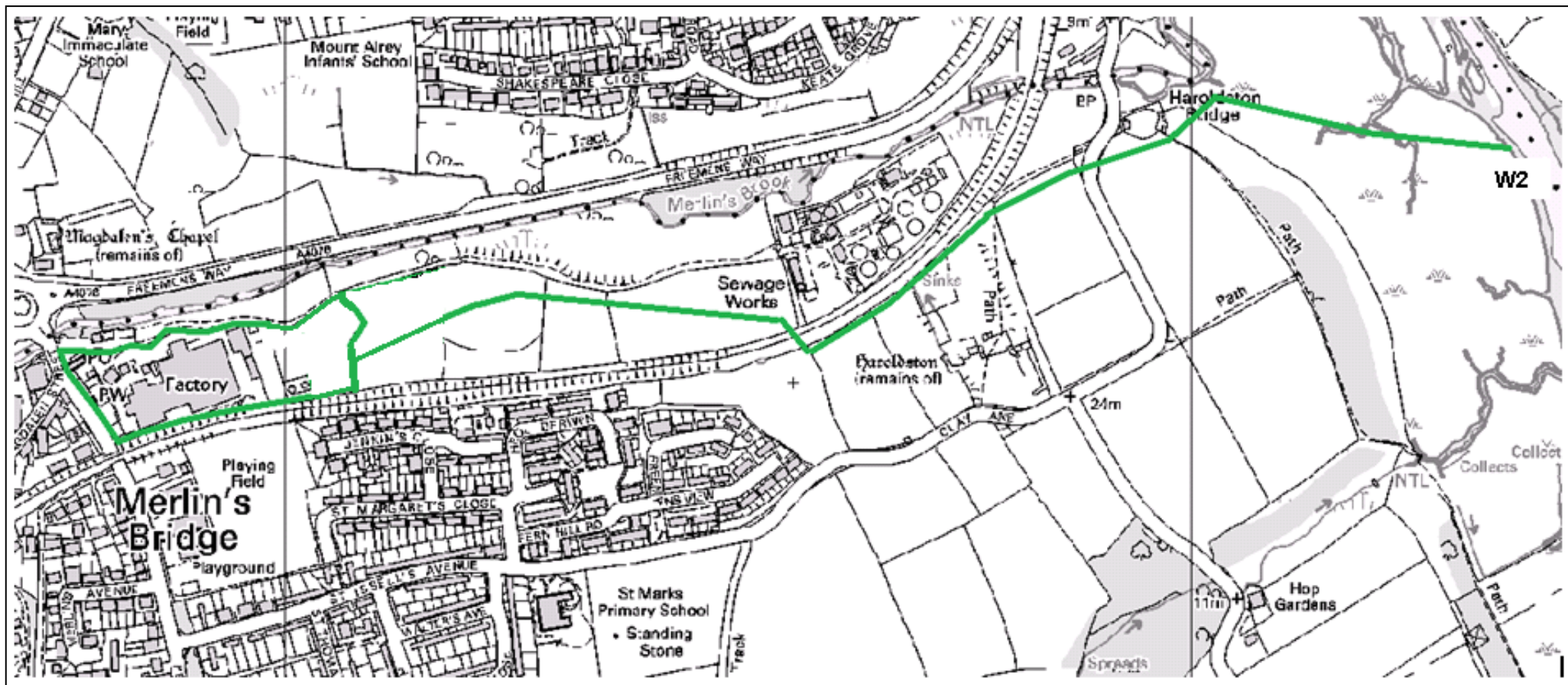
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:



- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

## Schedule 7 - Site plan





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## Schedule 8 – Annex 1 of MCPD

1. Rated thermal input (MW) of the medium combustion plant.	2.7 MW thermal input
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Combined Heat and Power Engine
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	100 % 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.	01/07/2020
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	NACE 10.51
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	8760 hours
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	<p>Registered office address: The First Milk Cheese Company Limited, The Lake District Creamery, Station Road, Aspatria, CA7 2AR</p> <p>MCP Location: Haverfordwest Creamery, Pembroke Road, Merlins Bridge, Haverfordwest, SA61 1JN</p>

END OF PERMIT