

# Notice of variation and consolidation with introductory note

**The Environmental Permitting (England & Wales) Regulations 2016**

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Meadow Foods Limited

Rough Hill Farm  
Rough Hill  
Marlston-Cum-Lache  
Chester  
Cheshire  
CH4 9JS

**Variation application number**

EPR/BV8008IQ/V004

**Permit number**

EPR/BV8008IQ

# Rough Hill Farm

## Permit number EPR/BV8008IQ

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This consolidated permit has been issued following a full review against the best available techniques (BAT) conclusions for the Food, Drink and Milk Industries published on 4<sup>th</sup> December 2019 in the official journal of the European Union.

We have implemented the requirements of the Medium Combustion Plant directive and incorporated post-dated requirements for 2030.

The schedules specify the changes made to the permit.

The main features of the permit are as follows.

The milk processing facility located at approximately 5km South of Chester at NGR SJ3812362285, processes on average 1,000 tonnes of milk and cream per day into a range of dairy based food ingredients, which include anhydrous milk fat and concentrated skimmed milk.

Concentrated skimmed milk is produced by separating whole milk into cream and skimmed and is then stored in silos and pasteurised. The skimmed milk is then further processed and concentrated through a reverse membrane osmosis plant. Anhydrous milk fat is produced from cream, some of which is derived from the skimmed milk process. The cream is further separated, and phase inverted to produce the final product.

The processing of the milk is the main activity, which is listed under Section 6.8A(1)(e) of the Industrial Emissions Directive (IED). The cream processing is listed under Section 6.8 A(1)(d)(i) of the IED. Raw materials which are both dairy and non-dairy based are also processed under listed activity 6.8 A(1)(d)(iii) (Treating and processing materials intended for the production of food products from animal and vegetable raw materials (other than milk only) both in combined and separate products with a finished product production capacity of more than 75 tonnes per day).

The installation is served by 4 boilers, which have a combined thermal rating of 11.2 MWth. The boilers provide steam to the processing activities and form a directly associated activity within the installation. The fuel used on site is natural gas, which has a backup of gas oil. Regular maintenance and combustion efficiency tests are carried out on the boilers. The air emissions from these MCPs are monitored at emission points A1, A2, A3, and A4.

Effluent from the installation is mainly derived from the cleaning-in-place operation. The effluent is treated by the on-site effluent treatment plant, which includes primary and secondary treatment to the effluent in the form of dissolved air flotation and aerobic digestion of the effluent. Treated effluent is finally discharged to Balderton Brook through water emission points W1 and W2. The effluent treatment activity is listed under sections 5.4 A(1)(a)(i): Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by biological treatment and 5.4 A(1)(a)(ii) of the IED: Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment. Uncontaminated surface water from roofs and yards is discharged into the same water body via the existing drainage system of the site.

Odour management is done through an Environment Agency approved Odour Management Plan. The installation has an Environmental Management System (EMS) externally accredited to the ISO 14001 standard.

The status log of a 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 EPR/BV8008IQ/A001	17/03/2005	Application received for the treatment and processing of milk
Schedule 4 notice issued 07/07/2005	04/08/2005	H1 assessment, MSA report, mercury and cadmium concentration and release quantities, specific energy consumption.
Request to extend determination 08/08/2005	16/08/2005	Request accepted
Effluent Treatment Plant improvement information	07/09/2005	
Noise investigation e-mail received	14/10/2005	
Additional information	19/12/2005	Noise investigation letter and amended drainage plan received
Request to extend determination 01/11/2005	08/11/2005	Request accepted
Additional information	23/12/2005	Ammonia monitoring and flow control during spate received
Permit determined	13/03/2006	Permit issued to Meadow Foods Limited
Agency variation EPR/BV8008IQ/V002	10/01/2014	Agency variation to implement the changes introduced by IED
Application EPR/BV8008IQ/V003 (variation and consolidation)	Duly made 17/12/2018	Application to vary the permit to increase surface water emission volumes
Additional information	24/05/2019	Revised site plan and emission points
Additional information	13/03/2020	Detail of additional non-dairy process being added to installation. Revised Odour and Accident Management Plans
Variation determined EPR/BV8008IQ [Billing reference: AP3733AM]	11/09/2020	Varied permit issued to Meadow Foods Limited
Application EPR/BV8008IQ/V004 (variation and consolidation)	Regulation 61 Notice response received 24/07/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.
Request for further information (dated 30/01/2023)	15/02/2023	Additional information received concerning installation capacity, BATcs 1, 4, 6(b), 9, 10, description of permitted activity, and non-technical description of facility.
Request for further information – clarifications (dated 23/02/2023)	10/03/2023	Additional information regarding capacity threshold, BATc 3, 6(a), 11, BAT-AELs, containment.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Variation determined and consolidation issued EPR/BV8008IQ (Billing ref. HP3447QX)	28/04/2023	Varied and consolidated permit issued in modern format

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

### Permit number

**EPR/BV8008IQ**

### Issued to

**Meadow Foods Limited** (“the operator”)

whose registered office is

**Rough Hill**

**Marlston-Cum-Lache**

**Chester**

**Cheshire**

**CH4 9JS**

company registration number 02720823

to operate a regulated facility at

**Rough Hill Farm**

**Rough Hill**

**Marlston-Cum-Lache**

**Chester**

**Cheshire**

**CH4 9JS**

to the extent set out in the schedules.

The notice shall take effect from 28/04/2023.

<b>Name</b>	<b>Date</b>
<b>Marcus Woodward</b>	<b>28/04/2023</b>

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/BV8008IQ**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BV8008IQ/V004 authorising,

**Meadow Foods Limited** (“the operator”),

whose registered office is

**Rough Hill**

**Marlston-Cum-Lache**

**Chester**

**Cheshire**

**CH4 9JS**

company registration number 02720823

to operate an installation at

**Rough Hill Farm**

**Rough Hill**

**Marlston-Cum-Lache**

**Chester**

**Cheshire**

**CH4 9JS**

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

Name	Date
Marcus Woodward	28/04/2023

Authorised on behalf of the Environment Agency

# 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.

### **2.3 Operating techniques**

2.3.1 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 the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency 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 the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 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.

2.3.5 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.

### **2.4 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 the Environment Agency.

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

## **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.
- 3.1.4 The first monitoring measurements shall be carried out within four months of 01/01/2030 or of the date when the MCP is first put into operation, whichever is later.

### **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 the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency 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 the Environment Agency.

### **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 the Environment Agency, 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.

### **3.4 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 the Environment Agency, 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 the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency 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 the Environment Agency.

## **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2.
- 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 the Environment Agency.
- 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 the Environment Agency.

## **3.6 Pests**

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
  - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# **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 the Environment Agency, 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 the Environment Agency.

## 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) 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.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, 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.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, 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 In the event:
- (a) 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 the Environment Agency,
    - (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) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) 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 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 the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency

when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

- 4.3.4 The Environment Agency 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); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

- 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) the Environment Agency 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 The Environment Agency 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, the Environment Agency 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 "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
AR1	Section 6.8 Part A1 (e)	Treating and processing milk with the quantity of milk received being more than 200 tonnes per day (average value on annual basis)	From receipt of raw milk delivered to the site to the dispatch of processed packaged milk, cream, and butter.  Production capacity is limited to 1500 tonnes per day.
AR2	Section 6.8 A(1) (d)(i)	Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging): only animal raw materials (other than milk only) with a finished product production capacity greater than 75 tonnes per day	Processing of cream into dairy based products.  From receipt of raw materials to manufacture, storage and despatch of finished product, cleaning of process plant and the storage, handling and despatch of waste arising from the production process.
AR3	Section 6.8 A(1) (d)(iii)(aa)	Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging); (iii) animal and vegetable raw materials (other than milk only), both in combined and separate products, with a finished product production capacity in tonnes per day greater than: 75 if A is equal to 10 or more where 'A' is the portion of animal material in percent of weight of the finished product production capacity.	Production of dairy based oils and fats also containing vegetable oil-based ingredients, and the production of non-dairy based products.  From receipt of raw materials to manufacture, storage and despatch of finished product, cleaning of process plant and the storage, handling and despatch of waste arising from the production process.

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
AR4	Section 5.4 Part A1 (a) (i)	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by biological treatment	Biological treatment of non-hazardous wastewater. From generation of waste water to biological treatment to be fed into the physico-chemical ETP stage of the water treatment process. The biological treatment consists of balancing, anoxic treatment, aeration, nitrification, and denitrification, sedimentation and sludge disposal via tanker through a third party.
AR5	Section 5.4 Part A1 (a) (ii)	Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by physico-chemical treatment.	Physico-chemical Treatment of non-hazardous waste waters by dissolved air flotation/pH adjustment.  From generation of waste water to discharge to Balderton Brook. The physico-chemical treatment consists of primary filtration, chemical dosing, DAF, coagulation and flocculation, secondary filtration, clarification, tertiary filtration through MBR and discharge to brook.
<b>Directly Associated Activity</b>			
AR6	Steam supply	Medium Combustion plants, natural gas fired: <b>Boiler 1</b> (dairy): 2.0 MWth <b>Boiler 2</b> (dairy): 2.0 MWth <b>Boiler 3</b> (butter): 3.6 MWth <b>Boiler 4</b> (butter): 3.6 MWth	From receipt of fuel to release of products of combustion to air. Boilers 1 and 2 (dairy) are back-ups limited to operate up to 500 hours per year each.
AR7	Raw material storage and handling	Storage and handling of raw materials at the installation	From receipt of raw materials to dispatch of final product.
AR8	Use of refrigerants	Use of refrigerants in cooling, chilling and/or freezing systems at the installation.	From receipt of raw materials to dispatch of final product.
AR9	Storage and use of chemicals and oils	Storage and use of chemicals and oils at the installation.	From receipt of chemicals and oils to disposal of wastes arising.

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
AR10	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.
AR11	Surface water drainage	Collection of uncontaminated site surface waters.	Handling and storage of site drainage until discharge to the site surface water system leading to Balderton Brook.
AR12	Cleaning in place	Cleaning of silos and associated lines, processing plants and haulage tankers.	From receipt of CIP products to treatment in the effluent treatment plant and transfer off site.
AR13	Packaging	Packaging of products in lined boxes and plastic tubes prior to palletising.	From receipt of product to transfer off-site.
AR14	Compressed air generation	Generation of compressed air to feed equipment on site.	From generation of compressed air to use across site.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application EPR/BV8008IQ	Response to questions 2.1 and 2.2 given in pages 9 to 45 of the application.	17/03/2005
Schedule 4 Notice Response	MSA Report.	04/08/2005
Further information	Amended drainage plan and the outcome of the noise Investigation.	19/12/2005
Further information	Monitoring method for ammonia and spate conditions	23/12/2005
Application for Variation EPR/BV8008IQ/V003	The responses to questions in Part C2 and C3 of the application and supporting documents, and referenced supporting information.	Duly made 17/12/2018
Further information EPR/BV8008IQ/V003	Revised site plan and emission points	24/05/2019
Further information EPR/BV8008IQ/V003	Detail of additional non-dairy process being added to installation. Revised Odour Management Plans ref: <i>Meadow Foods (Chester) Odour Management Plan - Issued March 2020 Revision 3</i> Revised Accident Management Plans ref: <i>Meadow Foods Accident Management Plan - Issued 22nd January 2020 Revision 11</i>	13/03/2020
Regulation 61 (1) Notice – Responses to	All parts	24/07/2022



<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
questions dated 24/03/2022		
Request for further information dated 30/01/2023	Further information provided in relation to BATcs 1, 4, 6(a)-Energy Efficiency plan, 6(b)-energy efficiency techniques, 9, 10, 11, installation's capacity.	15/02/2023
Request for further information dated 23/02/2023	Clarification of capacity, BATcs 6(a), 11, BAT-AELs, containment.	10/03/2023

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC12	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 4 December 2023. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Methodology for achieving BAT</li> <li>2) Associated targets /timelines for reaching compliance by 4 December 2023</li> <li>3) Any alterations to the initial plan (in progress reports).</li> </ol> <p>The report shall address the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 4, 6(a) and 9.</p> <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	04/12/2023
IC13	<p>The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs.</p> <p>To demonstrate compliance against BAT 9, the operator shall develop a replacement plan for the refrigerant system(s) at the installation. This shall be incorporated within the existing environmental management system by the specified date.</p> <p>The plan should include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible.</li> <li>• An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.</li> <li>• Replacement of systems containing HCFCs as soon as possible.</li> </ul>	04/12/2023
IC14	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the BAT conclusion AELs where a derogation has been applied for and granted. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Current performance against the BAT-AELs.</li> <li>2) Methodology for reaching the BAT-AELs.</li> </ol>	04/12/2023

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
	<p>3) Associated targets / timelines for reaching compliance by 04/12/2023 time limited date in granted derogation for emissions to water.</p> <p>4) Any alterations to the initial plan (in progress reports).</p> <p>The report shall address the BAT Conclusions for Food, Drink and Milk industries with respect to the following:</p> <ul style="list-style-type: none"> <li>• BAT 12 Table 1 (compliance with BAT-AELs for direct discharges to a receiving water body)</li> </ul>	
IC15	<p>The operator shall submit as climate change adaptation plan to the Environment Agency for approval.</p> <p>The plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• Details of how the installation has or could be affected by severe weather;</li> <li>• The scale of the impact of severe weather on the operations within the installation;</li> <li>• An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.</li> </ul> <p>The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.</p>	12 months from permit issue, or other date as agreed in writing with the Environment Agency

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

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency [Note 1]	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Boiler Plant Natural gas fired Boiler 1: 2.0 MWth [Note 3]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	250 mg/m <sup>3</sup>	Periodic	Every three years	BS EN 14792 [Note 2]
		Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058
A2 [Point A2 on site plan in Schedule 7]	Boiler Plant Natural gas fired Boiler 2: 2.0 MWth [Note 3]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	250 mg/m <sup>3</sup>	Periodic	Every three years	BS EN 14792 [Note 2]
		Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058
A3 [Point A3 on site plan in Schedule 7]	Boiler Plant Natural gas fired Boiler 3: 3.6 MWth	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	250 mg/m <sup>3</sup>	Periodic	Every three years	BS EN 14792 [Note 2]
		Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058
A4 [Point A4 on site plan in Schedule 7]	Boiler Plant Natural gas fired Boiler 4: 3.6 MWth	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	250 mg/m <sup>3</sup>	Periodic	Every three years	BS EN 14792 [Note 2]
		Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058
<p>Note 1: The limits and monitoring requirements shall only apply from 01/01/2030 (unless the boiler is replaced).</p> <p>Note 2: certification to the MCERTS performance standards indicates compliance with BS EN 14792</p> <p>Note 3: Not subject to MCPD regulations if operation is limited to maximum 500 hours per year</p>						

<b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b>								
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>		
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Total daily volume of discharge	2,000 m <sup>3</sup> /day Dry weather flow	24-hour total	Continuous	MCERTS self-monitoring of effluent flow scheme		
			346 m <sup>3</sup> /day During spate conditions <sup>[Note 1]</sup>					
			2,764 m <sup>3</sup> /day After spate conditions <sup>[Note 2]</sup>					
		Discharge effluent flow rate	23.15 l/s Dry weather flow	24-hour total			Continuous	MCERTS self-monitoring of effluent flow scheme
			4 l/s During spate conditions <sup>[Note 1]</sup>					
			31.9 l/s After spate conditions <sup>[Note 2]</sup>					
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Biochemical oxygen demand (BOD)	9 mg/l	Average	Monthly	BS EN 1899-1		
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Chloride (Cl <sup>-</sup> )	1,500 mg/l	Spot sample	Daily	BS EN ISO 15682		
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Ammoniacal nitrogen expressed as N	3.5 mg/l	Spot sample	Daily	BS EN 12260		
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Phosphate	1 mg/l	Spot sample	Weekly	BS EN ISO 15681-1		
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent treatment plant	Total suspended solids (TSS)	29 mg/l <sup>[Note 3]</sup>	Average	Daily	BS EN 872		
W1 on site plan in	Effluent treatment plant	pH	6 – 9	Spot sample	Daily	BS ISO 10523		

<b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
schedule 7 emission to Balderton Brook						
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent Treatment Plant	Aluminium	1 mg/l	Spot Sample	Monthly	BS EN ISO 11855 BS EN ISO 17294-2
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent Treatment Plant	Chemical Oxygen Demand (COD) <sup>[Note 4]</sup>	125 mg/l <sup>[Note 3]</sup>	Average	Daily	BS ISO 15705
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent Treatment Plant	Total Nitrogen	20 mg/l <sup>[Note 3]</sup>	Average	Daily	EN 12260, EN ISO 11905-1
W1 on site plan in schedule 7 emission to Balderton Brook	Effluent Treatment Plant	Total Phosphorus	4 mg/l <sup>[Note 3]</sup>	Average	Daily	EN ISO 6878, EN ISO 15681-1 and -2, ENISO 11885
W2 on site plan in schedule 7 emission to Balderton Brook	Uncontaminated surface water via interceptor	No parameters set	No limit set	--	--	--

Note 1: During spate conditions, where the river level in Balderton Brook exceeds the high-level alarm set at 750mm on the gauge in Balderton Brook, the rate of discharge shall not exceed 4 litres per second (346 m<sup>3</sup>/day).

Note 2: Following spate conditions, the rate of discharge shall not exceed 31.9 litres per second (2,764 m<sup>3</sup>/day) for a period of no more than 3.5 times the length of the period that Balderton Brook was in spate.

Note 3: Emission limit applies from 4 December 2023.

Note 4: TOC and COD are alternatives. TOC is the preferred option because it does not rely upon the use of very toxic chemicals.

## Schedule 4 – Reporting

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

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Point source emissions to air Parameters as required by condition 3.5.1	MCPD Boiler emission points: A1: Boiler 1 A2: Boiler 2 A3: Boiler 3 A4: Boiler 4	First monitoring undertaken in accordance with Condition 3.1.4 to be reported within 3 months, and then every 3 years thereafter.	From first monitoring requirements in accordance with Condition 3.1.4
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	W1	Quarterly	1 January, 1 April, 1 July & 1 October

<b>Table S4.2: Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
Pasteurised milk produced.	tonnes
Cream despatched	tonnes
Butter	tonnes

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Water usage	Annually	m <sup>3</sup>
Energy usage	Annually	MWh
Waste	Annually	tonnes
Food waste	Annually	tonnes
COD efficiency	Annually*	COD te/te product
*COD efficiency to be calculated on a weekly frequency, reported annually		

<b>Table S4.4 Reporting forms</b>		
<b>Parameter</b>	<b>Reporting form</b>	<b>Form version number and date</b>
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

<b>Table S4.4 Reporting forms</b>		
<b>Parameter</b>	<b>Reporting form</b>	<b>Form version number and date</b>
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Food Waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1 06/02/2023
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021



# 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	

<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>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the breach of permit conditions not related to limits</b>	
<b>To be notified within 24 hours of detection</b>	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

<b>(d) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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.	

Name*	
Post	
Signature	
Date	

\* 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 the Environment Agency 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.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 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.

“Food waste” reporting: Reporting of food waste to use a methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard) , WRAP’s Target Measure Act initiative or similar.

“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.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“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. An “existing medium combustion plant” is combustion plant operating before 20 December 2018.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

Pests” means Birds, Vermin and Insects.

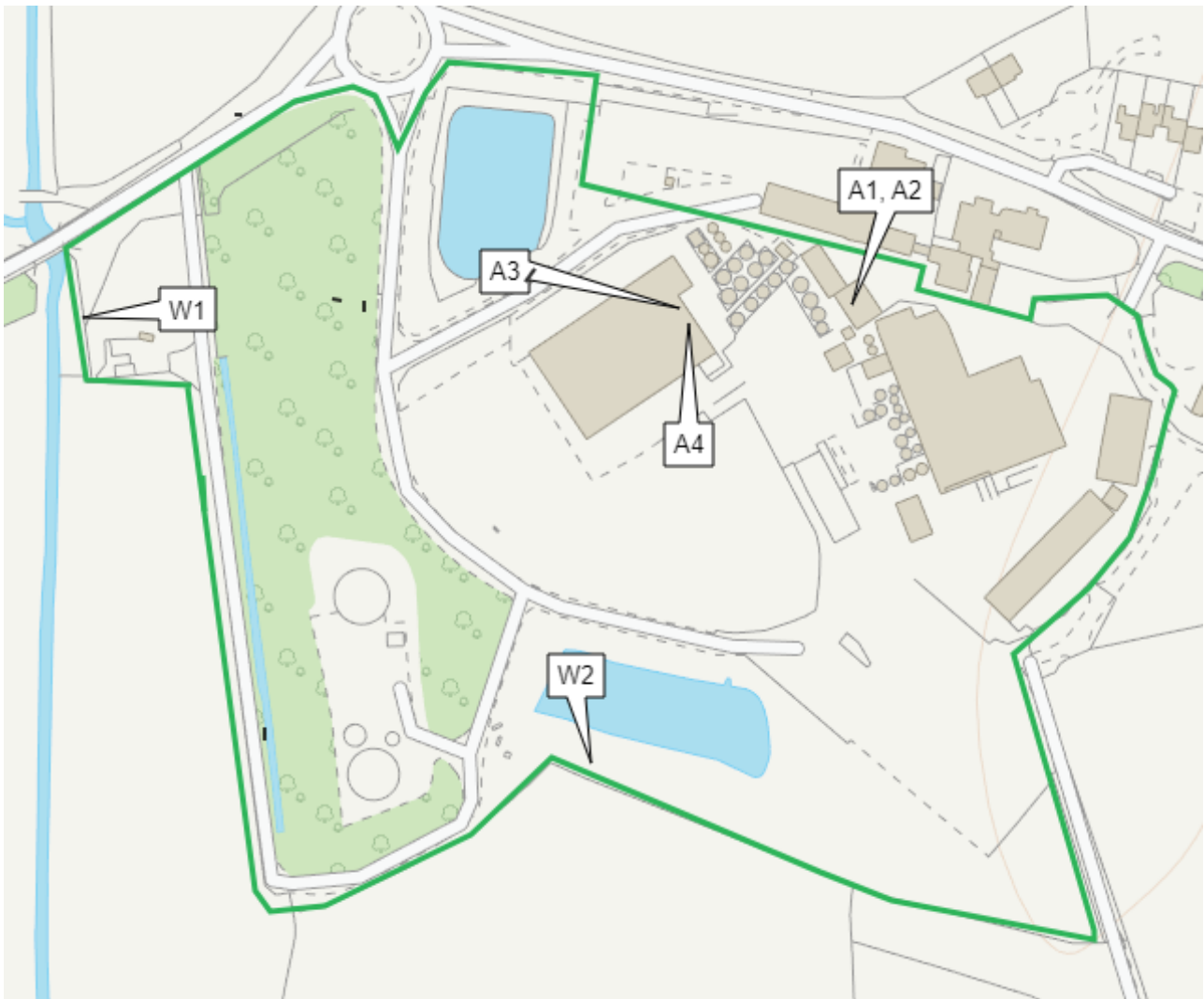
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- 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 other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or
- 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

“year” means calendar year ending 31 December.

## Schedule 7 – Site plan



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