

Notice: Variation of Permit

This permit has been varied by the Scottish Environment Protection Agency (SEPA) in exercise of its powers under Regulation 46 of the Pollution Prevention and Control (Scotland) Regulations 2012 ("the Regulations"). The terms used in this notice, unless otherwise defined, have the same meaning as in the Regulations.

| Permit Number: | PPC/A/1003148 | |
|--|---|--|
| Arla Foods Limited Priestdykes Road Lockerbie DG11 1LW | | |
| Operator: | Arla Foods Limited 02143253 Arla House, 5 Savanah Way, Leeds Valley Park, Leeds, LS10 1AB | |
| Variation Number: | VAR01 | |
| Effective Date of Variation: | 8 November 2022 | |
| Details of Variation: | The permit is varied as specified in the Schedule attached. | |



Schedule

The permit has been varied as follows:

1. The following terms are added to the "Interpretation of Terms":

"Engine" means gas engine.

"Gas engine" means an internal combustion engine which operates according to the Otto cycle and uses spark ignition to burn fuel.

"medium combustion plant" means A combustion plant with a rated thermal input equal to or greater than 1 megawatt but less than 20 megawatts.

"natural gas" means naturally occurring methane with no more than 20% (by volume) of inerts and other constituents.

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

"rated thermal input" means The rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal.

"start-up and shut-down" as defined in the Commission Implementing Decision (2012/249/EU), OJ L 334, 17.12.2000, p.17.

"hazardous substance" means substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament on classification, labelling and packaging of substances and mixtures.

- 2. In Schedule 1, new Conditions 1.1.3.1, and 1.1.3.2 are inserted as follows:
- 1.1.3.1 The recovery or a mix of recovery and disposal of non-hazardous waste at an installation with a capacity exceeding 100 tonnes per day falling within Schedule 1, Part 1, Chapter 5, Section 5.4, Part A (b) (i) of the Regulations.
- 1.1.3.2 The treatment and discharge of waste water at an installation carrying out any other Part A activity falling within Schedule 1, Part 1, Chapter 5, Section 5.7, Part A of the Regulations.
- 3. In Schedule 1, Condition 1.1.4.1 paragraph i) is deleted and paragraphs j), k), l), m), and n) shall now be known as i), j), k), l), and m).
- 4. In Schedule 1, Condition 1.1.4.2 paragraph d) is deleted.
- 5. In Schedule 1, new Conditions 1.1.4.3, 1.1.4.4 and 1.1.4.5 are inserted as follows:
- 1.1.4.3 The anaerobic digestion area consisting of:
 - a) An automatic Rotary drum screen bioreactor feed system;



- An enclosed 3.0m³ capacity polypropylene cylindrical bioreactor feed tank fitted with an automatic pressure level shutdown and recirculation system, identified as T300;
- c) Chemical storage and dosing equipment for:
 - a. Ferric Chloride
 - b. Micro-nutrient solution
 - c. Sodium hydroxide
- d) 1 x 500 m³ capacity glass coated mild steel anoxic tank fitted with an automatic pressure level shutdown and recirculation system, identified as (T301);
- e) 1 x 2400 m³ capacity glass coated mild steel bioreactor tank fitted with an automatic pressure level shutdown and recirculation system, identified as (T302); and
- f) 2 x 6300 m³ capacity glass/epoxy coated mild steel cylindrical reactor tanks fitted with a double membrane domed roof and pressure release valves venting to emission points A8 and A9 and identified as T1301 and 1311. Both tanks are fitted with an automatic pressure level shutdown and recirculation system.
- 1.1.4.4 The burning of fuel in a medium combustion plant with a rated thermal input greater than 1 MW, falling within Schedule 1, Part 1, Chapter 1, Section 1.1, Part B (d) of the Regulations; consisting of 2 x 1.5MW natural gas engines with a net rated thermal input of 3MW for the provision of gas to the National network.
- 1.1.4.5 An effluent treatment plant consisting of:
 - Ultra filtration membrane separation system and related activated sludge transfer system fitted with flowmeter and automatic shutdown or recirculation controls:
 - b) An automatic chemical dosing system fitted with safety controls;
 - c) Sludge collection and mixing tank(s);
 - d) Balance and mixing tanks with related transfer pumps;
 - e) Divert tank and return system;
 - f) Drainage sump;
 - g) Ultra filtration permeate and cleaning tanks;
 - Sludge dewatering centrifuge system;
 - i) Automated sampler, flow monitoring, chemical and nutrient addition system flow monitoring;
 - j) an effluent Clarifier and Dissolved Air Flotation (DAF);
 - k) sand filters and sludge removal system: and



- I) effluent collection comprising drains, sumps and pipes.
- 6. In Schedule 1, Condition 1.1.5.10 is deleted and replaced with a new Condition 1.1.5.10 as follows:
- 1.1.5.10 Biogas upgrading unit consisting of activated carbon and membrane filtration system.
- 7. In Schedule 1, new Conditions 1.1.5.13 1.1.5.15 are inserted as follows:
- 1.1.5.13 An enclosed multi-stage self-igniting flare, discharging through a 12m stack (Emission Point A7).
- 1.1.5.14 A containerised waste heat steam raising boiler with a thermal input of 993kW for provision of installation steam.
- 8. In Schedule 2, Condition 2.3.1, the words "a report shall be forwarded in writing in duplicate to SEPA at the address specified in the explanatory notes attached to this Permit" are deleted and replaced with "a report shall be forwarded to SEPA at the email address registry@sepa.org.uk and cc'd to sws@sepa.org.uk, or to the address specified in the explanatory notes attached to this Permit"
- 9. In Schedule 2, Table 2.1 is deleted and replaced with a new Table 2.1 as follows:

Table 2.1 – Reporting Requirements

| Summary of Information to be Reported | Condition | Date/Within period/Frequency to be Reported | Date First Report Due |
|---|-----------|---|-----------------------|
| Notification of change in appropriate person | 2.1.2 | Without delay | N/A |
| Incident investigation report | 2.4.4 | Within 14 days of the date of the Incident unless otherwise agreed in writing with SEPA | N/A |
| Resource utilisation | 2.5.1 | At least once every 4 years | 31 January 2023 |
| Waste data reporting | 2.6.2 | Quarterly: within 28 days of the last day of March, June, September and December | 31 January 2023 |
| Systematic assessment and review of internal floors, external yard surfaces, bunding, foul drainage system and process drains | 2.7.5 | At least every 4 years | 31 January 2024 |
| Systematic assessment of measures to prevent | 2.7.6 | At least every 4 years | 31 January 2024 |



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| emissions to soil and groundwater | | | |
| Groundwater monitoring requirements | 2.7.7 | Within one month of the analysis being completed | 31 July 2023 |
| Soil monitoring requirements | 2.7.8 | Within one month of analysis being completed | 31 July 2023 |
| Detailed soil and groundwater monitoring plan and methodology for groundwater/soil monitoring | 2.7.9 | At least 3 months in advance of the monitoring being carried out | 30 April 2023 |
| Notification of cessation of Permitted Activities | 2.9.2 | No later than 2 months prior to the proposed date of cessation or as agreed in writing with SEPA | N/A |
| Noise and vibration | 3.1.1 | At least once every 4 years | 22 May 2023 |
| Odour emissions systematic assessment | 3.2.7 | At least every 2 years | 30 October 2024 |
| Odour Management Plan proposed changes | 3.2.9 | At least 14 days prior to the change made | As required |
| Commissioning report | 3.5.5 | At least one month of ceasing the Commissioning Activities | As agreed in writing with SEPA |
| Monitoring report of air emissions | 4.1.5 | Annual | 14 January 2023 |
| Mass emissions to air | 4.1.6 | Annual | 14 January 2023 |
| Sampling report of effluent emissions | 4.2.7 | Quarterly, within two weeks of the end of the quarter: 1 January to 31 March; 1 April to 30 June; 1 July to 30 September; and 1 October to 31 December | 14 January 2023 |
| Mass emissions to water report | 4.2.8 | Annual | 21 January 2023 |
| Sampling Plan | 4.2.11 | Annual | 30 November 2023 |
| Annual review of bunding, sumps, pipelines and storage areas | 4.6.4 | Annual | 31 January 2023 |
| First measurement of emissions from | 4.11.5 | Once | Measurement must be taken within 4 months of the latest: grant of |



| Medium Combustion Plant | | | this permit or start of operation of the plant. |
|---|--------|---------------|---|
| | | | Results from this to be reported within 2 months of measurement |
| BAT assessment of alternative secondary containment options | 4.12.3 | Once | 31 March 2023 |
| Activation of flare or PRV's | 6.1.4 | Without delay | As required |

10. In Schedule 2, Table 2.2 – Resource Utilisation Data Recording, the following rows have been added to the table as follows:

| Raw Materials, Energy or Fuel | Unit of Measurement |
|--|---------------------|
| Propane | Tonnes |
| Chemicals for sludge dewatering | Litres |
| Chemicals used in the Anaerobic Digestor Plant | Litres |

11. In Schedule 2, a new Condition 2.6.2 is inserted as follows:

- 2.6.2 The Operator must complete a quarterly waste data report using the licensed/permitted site returns form located on SEPA's website at https://www.sepa.org.uk/environment/waste/waste-data/guidance-and-forms-for-operators/licensed-and-permitted-sites/. This form must be completed and submitted electronically to the email address waste.data@sepa.org.uk (or as otherwise specified by SEPA) within 28 days of the last day of March, June, September and December each year.
- 12. In Schedule 2, new Conditions 2.7.6 2.7.13 have been inserted along with new Tables 2.3 and 2.4 as follows:
- 2.7.6 At least every 4 years, the operator shall carry out a systematic assessment of all measures used to prevent emissions from the permitted installation to soil and groundwater. A written report of each assessment shall be recorded and reported to SEPA. The report shall include details of and timescales for any additional measures that are required to prevent emissions to soil and groundwater.
- 2.7.7 The Operator shall monitor the groundwater at the site for the relevant hazardous substances specified in Table 2.3 at the frequency specified in Table 2.3, the purpose of which shall be to identify groundwater contamination associated with the activities specified in Table 2.3 by those relevant hazardous substances. Each assessment shall be recorded and reported to SEPA. The first



assessment shall be completed within 9 months of the issue of variation notice (VAR01). The assessment shall include interpretation of the results with reference to previous monitoring undertaken (including the site and where applicable baseline reports) and operations at the Permitted Installation and details of corrective actions that are required to protect groundwater and remedy any contamination that has occurred as a result of Permitted activities.

Table 2.3 – Groundwater monitoring requirements

| Relevant substance | Activity to be monitored | Frequency |
|-----------------------------|--------------------------|-------------------------|
| As per monitoring plan as | As per monitoring plan | As per monitoring plan |
| agreed in writing with SEPA | as agreed in writing by | as agreed in writing by |
| and submitted under | SEPA and submitted | SEPA and submitted |
| condition 2.7.9 | under condition 2.7.9 | under condition 2.7.9 |
| | | The interval between |
| | | sampling rounds hall |
| | | be no more than 5 |
| | | years. |

2.7.8 The operator shall monitor the soil at the site for relevant hazardous substances specified in Table 2.4 at the frequency specified in table 2.4, the purpose of which shall be to identify soil contamination associated with the activities specified in table 2.4 by those relevant hazardous substances. Each assessment shall be recorded and reported to SEPA. The first assessment shall be completed within 9 months of issue of the Variation Notice (VAR01). The assessment shall include interpretation of the results with reference to previous monitoring undertaken (including the site and where applicable baseline reports) and operations at the permitted installation and details of corrective actions that are required to protect soil and remedy any contamination that has occurred as a result of permitted activities.

Table 2.4 - Soil monitoring requirements

| Relevant substance | Activity to be monitored | Frequency |
|--|---|--|
| As per monitoring plan as agreed in writing by | As per monitoring plan as greed in writing by | As per monitoring plan as greed in writing by |
| SEPA and submitted under condition 2.7.9 | SEPA and submitted under condition 2.7.9 | SEPA and submitted under condition 2.7.9 The interval between sampling rounds hall be no more than 10 years. |

2.7.9 The operator shall submit a detailed soil and groundwater monitoring plan, for the monitoring required by conditions 2.7.7 and 2.7.8 to SEPA at least three months in advance of carrying out the monitoring, which shall include the locations at which monitoring shall be carried out and the methodology which shall be used.



- 2.7.10 The operator shall carry out the monitoring required by conditions 2.7.7 and 2.7.8 in accordance with the soil and groundwater monitoring plan required by condition 2.7.9.
- 2.7.11 The operator shall review the plan required by Condition 2.7.9 no later than 6 months after each monitoring event. The purpose of the review shall be to determine whether any changes to monitoring locations, frequency or parameters are required and where changes are proposed, submit a revised plan to SEPA.
- 2.7.12 Notwithstanding the requirements of Condition 2.2 all plans, monitoring and assessment reports undertaken in accordance with Conditions 2.7.6, 2.7.7, 2.7.8 and 2.7.10 shall be preserved until the permit is surrendered.
- 2.7.13 The Operator shall maintain the groundwater monitoring wells detailed in the plan required in Condition 2.7.9 in a condition fit for purpose, unless otherwise agreed in writing with SEPA. Where a well's function is compromised it shall be repaired or replaced to allow sample collection in accordance with Conditions 2.7.7 and 2.7.8.
- 13. In Schedule 2, a new Paragraph 2.11 is inserted as follows:

2.11 Staffing and Management

- 2.11.1 All staff engaged in carrying on the Permitted Activities shall be provided with adequate professional and technical development training and written operating instructions to enable them to carry out their duties.
- 2.11.2 The Operator shall ensure that all staff engaged in carrying on the Permitted Activities are fully conversant with those aspects of the Permit Conditions which are relevant to their duties.
- 2.11.3 The Operator shall maintain a record of the skills and training requirements for each job and shall keep records of all relevant training.
- 2.11.4 The Permitted Installation shall be managed and supervised by appropriately qualified persons to ensure that the Conditions of the Permit are being complied with.
- 14. In Schedule 2, a new paragraph 2.12 is inserted as follows:

2.12. Infrastructure

- 2.12.1 All roads and surfaces shall be maintained in a condition such that their use is not compromised by debris, ruts, potholes, or ponded surface water.
- 2.12.2 The Permitted Installation shall be maintained in a secure condition to prevent unauthorised access.
- 2.12.3 Legible signs of durable material and finish shall be prominently displayed throughout the Permitted Installation to ensure that users of the installation are aware of:
 - a) Traffic routing and access restrictions;



- b) The location of the various facilities; and
- c) All areas of high risk.

15. In Schedule 2, a new paragraph 2.13 is inserted as follows:

2.13 Impermeable Pavement and Drainage

- 2.13.1 All working surfaces shall be impermeable and laid to fall so as to direct surface run-off to a purpose designed drainage system.
- 2.13.2 The impermeable pavement shall be constructed of concrete or similar material and be laid to fall so as to direct pavement water run-off to a sealed drainage system. The impermeable pavement shall be of such a design that any spillage on it or run-off from it is fully contained.

16 In Schedule 3, new Conditions 3.1.2 – 3.1.2.7 are inserted as follow:

- 3.1.2 By the 31 January 2023 the Operator shall develop and implement a Noise Management Plan to ensure noise emissions are controlled in a systematic manner. The Site Noise Management Plan should be proportionate to the level of perceived risk and should cover, amongst other things: -
- 3.1.2.1 roles and responsibilities;
- 3.1.2.2 procedures for monitoring a review;
- 3.1.2.3 operating procedures to minimise noise emissions at source and noise breakout from the main building:
- 3.1.2.4 the formalisation of a purchasing policy which specifically includes the consideration of low noise options;
- 3.1.2.5 how noise emissions are addressed within the site maintenance regime;
- 3.1.2.6 a procedure for handling complaints; and
- 3.1.2.7 procedures to ensure noise impact is considered when making any plant modifications.

17. In Schedule 3, new Conditions 3.2.2 - 3.2.10 have been inserted as follows:

- 3.2.2 Odour masking agents or counteractants shall not be used to meet the requirements of Condition 3.2.1.
- 3.2.3 Monitoring shall be carried out to assess odour emissions down-wind of the Site at the Site Boundary at least daily and during any storage/handling of odorous waste.
- 3.2.4 The Operator shall record the result of each assessment referred to in Condition 3.2.3. The records shall include the date, time, location, duration and result of the assessment as well as the name of the person making the assessment, the wind direction and strength and the general weather conditions at the time. The record shall further include the operational status of the Installation.



- 3.2.5 Where the Operator detects any offensive odours during assessments required by Condition 3.2.3, SEPA shall be informed immediately, the causes investigated by the Operator and corrective actions taken and recorded by the Operator. All records shall be available to SEPA on request.
- 3.2.6 The Operator shall implement and maintain the odour management plan ("Odour Management Plan") as provided in the Application.
- 3.2.7 At least every 2 years, the Operator shall carry out a systematic assessment and review of Odour Emissions associated with the Permitted Activities, the purpose of which shall be to identify methods of reducing odour Emissions and their impact. Each assessment shall be recorded and reported to SEPA.
- 3.2.8 The Odour Management Plan shall be updated following each systematic assessment and review as required by Condition 3.2.6, the purpose of which shall be to implement the findings of the assessment in a systematic manner.
- 3.2.9 The Operator shall notify SEPA in writing on any proposed changes to the Odour Management Plan at least 14 days prior to the change being made.
- 3.2.10 In the event of odour emissions from the Permitted Installation impacting on sensitive receptors, or there is a demonstrable risk of this occurring, the Operator shall conduct an odour impact assessment which shall be sufficient to identify the ground level concentration of odour around the Permitted Installation at nearby sensitive receptors. The result of the impact assessment shall be reported to SEPA within 1 month of the results of the assessment being received by the Operator.
- 18. In Schedule 3, a new paragraph 3.3 along with new Table 3.1 is inserted as follows:
- 3.3 Environmentally Critical Items
- 3.3.1 By 31 January 2023 the Operator shall identify and designate as environmentally critical, any item or process, plant or instrumentation that it relies on for the prevention or limitation of pollution from the Permitted Installation (an "Environmentally Critical Item").
- 3.3.2 Without prejudice to Condition 3.3.1 the Operator shall designate as an Environmentally Critical Item each of those items specified in Table 3.1.
- 3.3.3 The operator shall maintain a register of all Environmentally Critical Items at the Permitted Installation designated in accordance with Conditions 3.3.1 and 3.3.2. The said register shall contain the following records in respect of each Environmentally Critical Item:
 - A description of the said Environmentally Critical Item and its mode of operation;
 - b) The performance standards expected of the said Environmentally Critical Item;



- c) The acceptable range, with justification for each direct or indirect operating parameter that might materially affect the achievement of the performance standard referred to in Condition 3.3.3.b;
- Details of all monitoring necessary to assess compliance with the performance standard and operating parameters referred to in Conditions 3.3.3b and 3.3.3c retrospectively, including details regarding the handling and storage of such data;
- e) A description of the actions that should be taken in the event of any
 performance standard or acceptable operating parameter not being met, or
 the environmentally critical item not being operational, monitor failing or
 malfunctioning;
- f) A description of all maintenance and or calibration work that is necessary to secure the performance standard referred to in Condition 3.3.3.b; and
- g) A description of critical spare parts that will be held at the Permitted installation for the said Environmentally Critical Item, the minimum required stock level for each such spare part and the current stock level of each spare part.

<u>Table 3.1 – Environmentally Critical Items</u>

| Item |
|---|
| The biogas purification scrubber |
| All pressure relief valves and their mechanisms |
| The flare and flare stack |
| All monitoring devices and associated recording systems |
| All plant and equipment where waste may be present |
| Discharge Sluice Valve |
| Discharge bypass System |
| Discharge Effluent monitoring equipment |
| UPS Battery System, providing emergency power for flare activation. |

19. In Schedule 3, a new paragraph 3.4 is inserted as follows:

3.4 Emissions to air

- 3.4.1 The Operator shall maintain a register of all vents from which there are, or may be, point source emissions of substances to air. The said register shall contain the following records in respect of each vent:
 - a) a unique reference name or number for each vent;
 - b) plan(s) showing the precise location of each vent using the unique references required by Condition 3.4.1.a;
 - c) the identity and purpose of each major item of process plant that is connected to each vent;



- a description of the emissions of substances that are expected from the vent; and
- e) if any vent is subject of a Condition(s) of the Permit, a statement to this effect.
- 3.4.2 Each vent included in the vent register required under Condition 3.4.1 shall be clearly marked or tagged with the unique reference given to it in compliance with Condition 3.4.1.a.
- 20. In Schedule 3, a new paragraph 3.5 is inserted as follows:

3.5 Commissioning

- 3.5.1 Until Conditions 3.5.2 to 3.5.3 inclusive have been complied with the Operator shall not carry out any new activities or substantially changed activities, except as part of the commissioning activities notified to SEPA.
- 3.5.2 During the Commissioning Activities, the design features necessary to ensure compliance with any Condition of this Permit shall be tested and demonstrated to be effective.
- 3.5.3 When carrying out the Commissioning Activities the Operator shall carry out tests to demonstrate that the Permitted Installation can be operated so as to comply with any Condition of this Permit.
- 3.5.4 Should any test required by Condition 3.5.2 indicate that the Conditions of this Permit have not or cannot be complied with the Operator shall cease carrying on that part of the Commissioning Activities, until remedial actions to ensure compliance with the Conditions of this Permit have been implemented.
- 3.5.5 Within one month of ceasing the Commissioning Activities the Operator shall prepare and submit to SEPA a written report including the following:
 - Details and explanations for any faults in the plant, equipment or operating procedures identified during said teats that resulted, or may have resulted in the breach of any Condition of this permit;
 - b) Details of any remedial action taken or to be taken to overcome any of the said faults:
 - Where remedial action is to be taken the date by which each action will be taken, justification of this date and why the Operator believes
 Commissioning Activities have ceased, despite remedial action still being required; and
 - d) Details of deviations from the original operating methodology of the Permitted Activity and justification for deviations.
- 21. In Schedule 3, a new paragraph 3.6 is inserted as follows:
- 3.6 Roads and Traffic Control



- 3.6.1 The Operator shall ensure that all roads and surfaces within the Permitted Installation are kept free from mud and other debris to the extent necessary to prevent fouling of the public highway.
- 22. In Schedule 3, a new paragraph 3.7 is inserted as follows:
- 3.7 Birds, Vermin & Insects
- 3.7.1 All operations on the Permitted Installation shall be carried out to minimise the nuisance and hazards arising from the Permitted Installation in respect of the presence of birds, vermin and insects. The Permitted Installation shall be inspected at least once per week for the presence of birds, vermin and insects.
- 3.7.2 The Permitted Installation shall be inspected at least once every 8 weeks by a person suitably qualified and experienced in pest control and a treatment program shall be undertaken to deal with any identified infestation forthwith.
- 23. In Schedule 3, a new paragraph 3.8 is inserted as follows:
- 3.8 Leakages / Spills
- 3.8.1 Any spillages of waste, sludge, slurries, digestate, fuel or other liquids shall be cleaned up forthwith. A supply of a suitable absorbent material shall be kept on site to deal with any such spillages.
- 24. In Schedule 4, Condition 4.2.3 is deleted and replaced with the following:
- 4.2.3 All effluent from the Permitted Installation other than uncontaminated surface water shall be discharged to the effluent treatment system.
- 25. In Schedule 4, Condition 4.2.4 is deleted in its entirety.
- 26. In Schedule 4, Condition 4.2.6 is amended to remove the words "and 4.2.4"
- 27. In Schedule 4, Conditions 4.2.5 and 4.2.6 will now be known as Conditions 4.2.4 and 4.2.5
- 28. In Schedule 4, Condition 4.2.7 is deleted in its entirety.
- 29. In Schedule 4, Condition 4.2.9 is deleted and replaced with the following:
- 4.2.9 The date, time and results of all samples and measurements carried out in compliance with Condition 4.2.5 shall be recorded by the Operator and reported.
- 30. In Schedule 4, Condition 4.2.11 reference to Condition "4.2.10" is deleted and replaced with "4.2.8".
- 31. In Schedule 4, Conditions 4.2.8, 4.2.9, 4.2.10, 4.2.11, 4.2.12 and 4.2.13 will now be known as Conditions 4.2.6, 4.2.7, 4.2.8, 4.2.9, 4.2.10 and 4.2.11.
- 32. In Schedule 4, Condition 4.4.6 has been inserted as follows:
- 4.4.6 The Operator shall maintain a register of the operational requirements of the Permitted Activities operating at the Permitted Installation. The said register shall contain at least the following:



- a) A process flow diagram showing the main unit operations;
- b) A mass and energy balance showing the input of raw materials, the generation or emissions and the production of products and/or in intermediates and waste across the main unit operation as described in Condition 4.4.6.a;
- Any plant operating instructions and batch sheets that are necessary to operate the Permitted Activities in compliance with any Condition of this Permit.
- 33. In Schedule 4, a new paragraph 4.11 is inserted as follows:
- 4.11 Operation and data handling requirements for Medium Combustion Plants emissions to air:
- 4.11.1 All reasonable steps must be taken to ensure periods of start-up and shutdown of the medium combustion plant are kept as short as possible.
- 4.11.2 The discharge of any other substance, not specified in Table 5.1, into the air from the medium combustion plant must not cause significant environmental harm.
- 4.11.3 The Permitted fuel for the Combined Heat and Power Plant is natural gas.
- 4.11.4 A record must be kept of the type and quantity of fuel.
- 4.11.5 The first measurement of emissions must be taken within four months from the later of:
- 4.11.5.1 The grant of this Permit; or
- 4.11.5.2 The start of operation of the medium combustion plant.
- 4.11.6 All information recorded, kept or submitted to SEPA regarding the Medium Combustion Plant must be kept for a minimum of six years and provided to SEPA on request.
- 34. In Schedule 4, a new paragraph 4.12 is inserted as follows:
- 4.12 Upgrade Requirements
- 4.12.1 The operator shall undertake an assessment to identify options for secondary containment system(s) to further reduce the risk of loss of containment of any substances brought to or generated on the installation.
- 4.12.2 The operator shall propose a date for the implementation of the options assessed as a requirement of 4.12.1, or justify why it does not, in the operator's opinion, constitute the best available technique as defined in Regulation 4 of the Regulations.
- 4.12.3 By the 31 March 2023, the operator shall report the outcome of the BAT assessment required by Condition 4.12.1, and the implementation date as required by Condition 4.12.2.



- 4.12.4 By 31 October 2023, or such other date agreed in writing with SEPA, the operator shall have available and use a secondary containment system designed with a minimum capacity to contain 110% of the capacity of the largest container, or 25% of the total capacity of all the containers within the bund, whichever is the greater. In the event of any containers being connected to one another, they shall be treated as one container.
- 35. A new Schedule 5, has been inserted as follows:
- 5 CONDITIONS APPLYING TO THE RECEPTION OF WASTE AT THE PERMITTED INSTALLATION AS A WHOLE
- 5.1 Permitted Types of Waste
- 5.1.1 No waste shall be processed in the Permitted Installation other than the wastes as specified in Table 5.1.
- 5.1.2 Notwithstanding Condition 5.1.1 no Special Waste, as defined in the Special Waste Regulations 1996 (as amended), shall be accepted at the Permitted Installation.
- 5.2 Permitted Quantities of Waste
- 5.2.1 The amount of waste specified in Condition 5.1.1 that may be processed in the Permitted Installation shall not exceed 100,000 Tonnes in any calendar year.
- 5.3 Waste Acceptance
- 5.3.1 Waste shall only be accepted at the Permitted Installation when there is sufficient storage and/or processing capacity to receive it in compliance with the Conditions of the Permit.
- 5.3.2 The Operator shall monitor all wastes entering the Permitted Installation in accordance with this Permit (including weight recording of waste loads) to ensure they:
 - a) are within the types/quantities Permitted under the Conditions of this Permit: and
 - b) conform to the characterisation completed as part of the relevant preacceptance assessment.
- 5.3.3 Vehicles shall not be Permitted to unload waste at the Permitted Installation unless
 - a) a pre-acceptance assessment has been completed; and
 - b) the waste has been inspected by a suitably trained member of staff and found to comply with the requirements of this Permit and to conform to the waste characterisation detailed in the relevant pre-acceptance assessment.
- 5.3.4 Any waste detected during inspection which does not conform to the conditions of this Permit, or the characterisation detailed in the pre-acceptance assessment



shall be isolated in a suitable designated area which complies with Conditions 5.3.1 and 5.3.2 and removed from site.

5.4 Waste Handling and Storage

- 5.4.1 The residue and waste materials described in Table 4.9 shall only be stored on the Permitted installation at the location, following the method, and in the quantities specified in that Table.
- 5.4.2 Waste shall only be stored on site for a maximum of 7 days after receipt.
- 5.5 Designated area for storage of non-conforming wastes.
- 5.5.1 An area within the site boundary shall be provided for isolating non-conforming wastes. This area shall have an impermeable surface designated to ensure that no liquid fraction can escape beyond this area.
- 5.5.2 All containers used to store non-conforming wastes shall be constructed of such materials and sealed to prevent the release of pollutants and be covered to prevent the ingress of rainwater.

Table 5.1 – Permitted Waste Types

| Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing. | | |
|---|---|--|
| EWC Code | Description | |
| 02 02 03 | "Plant-tissue waste" | |
| 02 05 01 | "Materials unsuitable for consumption or processing" | |
| 02 05 02 | "Sludges from on-site effluent treatment" | |
| | Restriction: Biological sludge only | |
| 02 07 01 | "Wastes from washing, cleaning and mechanical reduction of raw materials" | |
| 02 07 02 | "Wastes from spirits distillation" | |
| | Restriction: Spent grains, fruit and potato pulp; Sludge from Distilleries only | |
| 02 07 04 | "Materials unsuitable for consumption or processing" | |
| 02 07 99 | "Wastes not otherwise specified" | |
| | Restriction: Malt husks, malt sprouts, malt dust; Spent grains: Hops; Yeast and like residues; Sludges from the production process only | |
| Wastes from organic chemical processes. | | |
| EWC Code | Description | |
| 07 01 08* | "Other still bottoms and reaction residues" | |
| | Restriction: Glycerol residue from biodiesel manufacture from non-waste vegetable oils only | |



- 36. A new Schedule 6, has been inserted as follows:
- 6 CONDITIONS APPLYING TO THE OPERATION OF THE ANAEROBIC DIGESTION ACTIVITY
- 6.1 Operation of Process
- 6.1.1 The Operator shall continuously record the pressure in the biogas system and if the recorded pressure exceeds 30 millibar at any time, the measured pressure, time, date, and durations of, and reason for the exceedance shall be recorded.
- 6.1.2 The Operator shall record the location and settings for all pressure release valves (PRVs) associated with the AD process.
- 6.1.3 All PRVs shall be linked to an alarm system(s) which shall be connected to telemetry 24 hours a day.
- Any activation of the flare or PRV's will be regarded as an incident and must be reported to SEPA without delay. The time, date and duration of the incident will be automatically recorded.
- 6.1.5 The Operator shall record the time, date and duration of each occasion on which an engine or flare whose purpose is to combust biogas generated by the anaerobic digestion activity described in Paragraph 1.1.5 of Schedule 1 of the Permit is unavailable for use, along with the reason for its unavailability.
- 6.1.6 Whenever the flare described in Paragraph 1.1.5 of Schedule 1 of the Permit is operating a minimum gas exit temperature of 1,000°C shall be maintained.
- 6.1.7 Failure to maintain the flare gas exit temperature above 1000°C out with start-up and shut-down, shall result in an alarm being raised. The time, date, duration and reason for the failure to meet the required minimum temperature shall be recorded.
- Prior to operating the process, the Operator shall have a documented Operating Procedure in place which as a minimum defines the method of controlling the quality and quantity of waste introduced into the said anaerobic digestion activity.

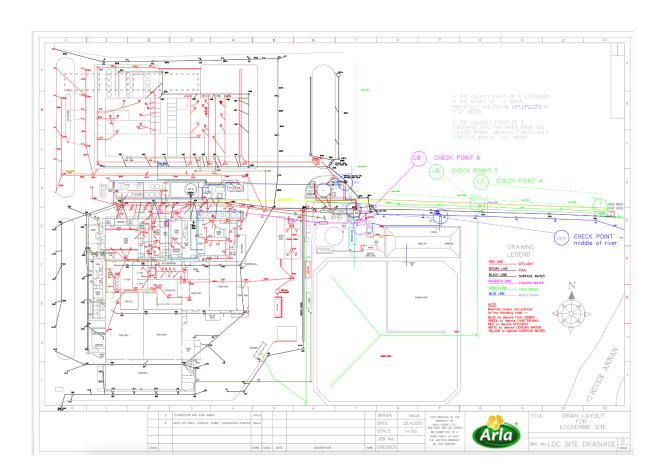


37. In Appendix 1, Site Plans, Plan 1: Installation and Site Boundaries is deleted and replaced as follows:





38. In Appendix 1, Site Plans, Plan 2: ARLA Foods Limited drainage layout and sampling points is deleted and replaced as follows:





39. In Appendix 3, Table 4.1: Emissions to Air ELV's is deleted and replaced as follows:

Table 4.1 - Emissions to Air ELVs

| | Emission Point Number | A1, A2, A3 | A4 | A5 | A7 |
|--|---|--|----------------------------|----------------------------|-------------------|
| | Emission Source | CHP natural gas fired boilers | 1.5 MWh natural gas engine | 1.5 MWh natural gas engine | Flare |
| Source of Emissions | Stack height (m) | 38 | 20 | 20 | 12 |
| | Flue diameter (m) | 0.8 | 0.5 | 0.5 | 2.8 |
| | Location on site Plan | A1, A2, A3 | A4 | A5 | A7 |
| | NGR | 310281, 581554 | 310243, 581598 | 310243, 581598 | 310392, 581476 |
| | Type of Monitoring | Annual SS | Annual SS | Annual SS | Continuous |
| Monitoring Details | Sampling Location | Individual boiler emission point | Sample ports in stack | Sample ports in stack | Stack |
| | Oxides of Nitrogen (mg/m3) | - | 95 | 95 | - |
| | Carbon monoxide (mg/m3) | - | 375 | 375 | - |
| | Temperature | - | - | - | 1000°C |
| Limits for Parameters from Emission | Visible Smoke – Ringlemann No. (as determined in accordance with BS2743:1969) During Start-up period | Not to exceed Shade 2. | | | |
| Source | At all other times | Not to exceed Shade 1 for any period longer than 4 consecutive minutes or 24 minutes in aggregate in any 8 hour period. | - | - | - |



40. In Appendix 3, Table 4.2: Emissions to Air Monitoring Requirements is deleted and replaced as follows:

Table 4.2 – Emissions to Air Monitoring Requirements

| Parameter | Emission Point Number | Standard | Frequency | Operational Mode |
|---|--------------------------------|---|---|---|
| Nitrogen Oxides | A1, A2 & A3 | To be agreed in writing with SEPA | At least once per year | At least 75% of the maximum continuous rating whilst firing either natural gas or gas oil. |
| Sulphur Dioxide | A1, A2 & A3 | To be agreed in writing with SEPA | If any boiler fires gas oil for longer than 2 weeks during any year, the emissions form that boiler shall be monitored at least once during that year | At least 75% of the maximum continuous rating whilst firing either natural gas or gas oil. |
| Oxides of Nitrogen (as NO ₂) | A4 + A5 Natural gas engines | BS EN 14792 or equivalent as agreed in writing with SEPA | At least once per year | Operating under stable conditions at a representative even load; and not during start-up or shutdown. |
| Carbon Monoxide | A4 + A5 Natural gas engines | BS EN15058 or equivalent as agreed in writing with SEPA | At least once per year | Operating under stable conditions at a representative even load; and not during start-up or shut-down. |
| Temperature | A7 Flare | BS EN 13649:2002 | Continuously | - |

41. In Appendix 3, Table 4.3: Reference Conditions is deleted and replaced as follows:

Table 4.3 - Reference Conditions

| Emission Point Number | Reference Condition |
|------------------------------|-------------------------------------|
| A1, A2, A3 | 3% Oxygen, dry, STP |
| Natural gas engines – A4, A5 | 273K, dry gas, 101.3kPa, 15% oxygen |
| Flare – A7 | 0.3 second residence time |



42. In Appendix 3, Table 4.4: Mass Emissions to Air is deleted and replaced as follows:

Table 4.4 - Mass Emissions to Air

| Parameter | Combined Emissions (Number) | Method (Summary) | Mass Emissions Results to be recorded as |
|--------------------|-----------------------------------|---|--|
| Nitrogen oxides | A1, A2, A3 | Estimate based on emissions monitoring data and theoretical predictions | Tonnes per year and tonnes per tonne of milk intake during each year |
| Sulphur dioxide | A1, A2, A3 | Estimate based on emissions monitoring data and theoretical predictions | Tonnes per year and tonnes per tonne of milk intake during each year |
| Carbon dioxide | A1, A2, A3 | Estimate based on emissions monitoring data and theoretical predictions | Tonnes per year and tonnes per tonne of milk intake during each year |
| Oxides of nitrogen | A4, A5 | Estimate based on monitored emissions | Kg of nitrogen dioxide |
| Carbon monoxide | A4, A5 | Estimate based on monitored emissions | Kg of carbon monoxide |

43. In Appendix 3, Table 4.5: Emissions to Effluent Collection System/Water ELVs is deleted and replaced as follows:

Table 4.5 - Emissions to Effluent Collection System/Water ELVs

| Locations point number(s) on discharge plan | S2 | W1 | W2 | W3 |
|---|---|---|---|--|
| Source of Emission | Surface water collection and drainage system | Production processes | Surface water collection and drainage system | Cooling water |
| Emission Location | Discharge to River Annan at NGR NY 1064 8163 | Discharge to River Annan at NGR NY 1067 8162 | Discharge to River Annan at NGR NY 1064 8163 | Discharge to River Annan via 380mm internal diameter steel pipe at NGR 1062 8160 |
| Sampling Locations | Discharge to River Annan at NGR NY 1064 8163 | Effluent sample location NGR NY 1042 8158 | Surface water sampling point located at NGR NY 1064 8163 | (1) Intake from the River Annan at NGR NY 1060 8157 (2) Colling water channel sampling point located within the effluent plan compound at NGR NY 1040 8161 |



| Biological Oxygen Demand (mg/l) | 3 | 20 (annual average) | 3 | 5 (relative to the contemporaneous instantaneous sample of the cooling water intake sample) |
|------------------------------------|--------------|--|--------------|--|
| Chemical oxygen demand (mg/l) | No limit set | 125 | No limit set | No limit set |
| Total suspended solids (mg/l) | 25 | 50 | 25 | 10 (relative to the contemporaneous instantaneous sample of the cooling water intake sample) |
| Total nitrogen (mg/l) | No limit set | 20 | No limit set | No limit set |
| Total Phosphorus (mg/l) | No limit set | 20 until 03 December 2023 4 From 04 December 2023 | No limit set | No limit set |
| pH | 6-9 | 5-9 | 5-9 | 5-9 |
| Fe (mg/l) | No limit set | 2 (annual average) | No limit set | No limit set |
| Temperature (°C) | No limit set | 30 | 30 | 30 |
| Maximum daily volume limit (m3) | No limit set | 3000 | No limit set | 5000 |
| Flow rate (I/s) | No limit set | 34.72 | No limit set | 57.87 |
| Oil or greases | No limit set | No visible | No visible | No visible |

44. In Appendix 3, Table 4.6 Emissions to Effluent Collection System/Water Monitoring Requirements is deleted and replaced as follows:

Table 4.6 - Emissions to Effluent Collection System/Water monitoring Requirements

| Parameter | Emission Point | | Monitoring | Monitoring | Test Method | | |
|----------------------------|----------------|----|------------|------------|-------------|-----------------------------|--|
| | S2 | W1 | W2 | W3 | Frequency | device type | |
| рН | • | • | • | • | Continuous | Instantaneous analyser (IA) | As agreed with SEPA |
| Flow | | • | • | • | Continuous | Flow meter | As agreed with SEPA |
| Temperature (°C) | | • | • | • | Continuous | IA | As Agreed with SEPA |
| Maximum Daily Volume Limit | | • | • | • | Daily | IA | As Agreed with SEPA |
| Oil or grease | | • | • | • | Weekly | IA | As agreed with SEPA |
| BOD (mg/l) | | • | | • | Weekly | IA | As outlined in Standard EN 1899- 1 |



| | | | | | | Arain | neachd na n-Alba |
|-------------------------------|---|---|---|---|---------|--|---|
| BOD (mg/l) | • | | • | | Monthly | IA | As outlined in Standard EN 1899- 1 |
| COD (mg/l) | | • | | | Daily | Flow proportional composite sample over 24 hours | As agreed by SEPA |
| COD (mg/l) | • | | • | • | Monthly | IA | As agreed by SEPA |
| Total Suspended Solids (mg/l) | • | • | | | Daily | IA | As outlined in Standard EN 872 |
| Total Suspended Solids (mg/l) | | | • | • | Monthly | IA | As outlined in Standard EN 872 |
| Fe (mg/l) | | • | | | Weekly | IA | As agreed with SEPA |
| Fe (mg/l) | | | • | | Monthly | IA | As agreed with SEPA |
| Total Phosphorus (mg/l) | | • | | | Daily | Flow proportional composite sample over 24 hours | As agreed with SEPA (Various EN standards available) |
| Total Phosphorus (mg/l) | • | | • | • | Monthly | IA | As agreed with SEPA (Various EN standards available) |
| Total nitrogen (mg/l) | | • | | | Daily | IA | As agreed with SEPA (Various EN standards available) |
| Total nitrogen | • | | • | • | Monthly | IA | As agreed with SEPA (Various EN standards available) |

45. In Appendix 3, Table 4.7 – Mass Emissions to Water is deleted and replaced as follows:

Table 4.7 - Mass Emissions to Water

| Parameter | Emission Point (number) | Method (Summary) | Mass Emission Result recorded as | |
|------------------|-------------------------------|--------------------|---|--|
| COD | | | Tonnes per year and tonnes per | |
| BOD | | Aggregation of the | m3 of milk intake during each year | |
| Suspended solids | W1 | results of daily | | |
| Total Phosphorus | | quantification | Kg per year and kg per m3 of milk intake during each year | |



| Total Nitrogen | Kg per year and kg per m3 of milk intake during each year |
|----------------|---|
| | , , |

- 46. In Appendix 3, Table 4.8 is deleted in its entirety.
- 47. In Appendix 3, Table 4.9 Raw Material and Waste Handling and Storage is amended to add the following chemicals:

| Description | Location of Storage | Method of Storage | Maximum permitted quantity | Storage conditions |
|--------------------------------|--|--------------------------------|----------------------------|--|
| Caustic Solution | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Ferric Chloride/Sulphide | Anaerobic Digestion and Biogas Plant/Sludge dewatering | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Coagulant solution | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Polyelectrolyte solution | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Sodium Hypochlorite | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Citric acid | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Micronutrient solution | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| Proprietary cleaning chemicals | Anaerobic Digestion and Biogas Plant | Mini bulk storage tank | 10,000 litres | Contained within secondary containment |
| AD Treatment chemicals | Anaerobic Digestion and Biogas Plant | IBCs; 200 litre drums; carboys | 5,000 litres | Kept on bunded pallets or in bunded stores |

48. In Appendix 3, Table 4.9 shall now be known as Table 4.8.