

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

**Radnor Hills Mineral Water Company
Limited**

**Radnor Hills
Heartsease
Knighton
Powys
LD7 1LU**

Permit number
EPR/AB3697CN

Radnor Hills

Permit Number EPR/AB3697CN

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The installation is a soft drink production facility located in Powys and has been operational since 1996.

The process involves the abstraction and bottling of mineral and spring waters, and the blending of syrups and juices to create a range of still and sparkling soft drinks.

The facility abstracts water locally from the ground and, after mixing with a range of syrups and juices, bottles this water into a variety of products. Water is pumped from boreholes and is filtered prior to use in products. The abstraction of water is not included in this environmental permit as it is covered under a separate set of regulations.

Flavours are provided by syrups, which are mixed in the syrup room. A wide range of ingredients are mixed and diluted with water until there is a straightforward syrup: water ratio that is needed on the bottling lines themselves. Citric acid is used in the syrups to bring their acidity down to within regulation levels for soft drinks.

There are seven bottling lines (RV 2 – 8), one of which uses glass bottles and the rest plastic. Many of the bottles used by Radnor Hills are blown on site. Delivered as preforms, the bottles are filled with compressed air within a mould to give them their shape and rinsed. Bottles are then filled with still/sparkling water or flavoured drink, capped, and labelled. The plant has a maximum abstraction capacity of 3,280 m³ per day, however a likely sustained abstraction rate of 1,380m³/day is more realistic.

The site has 6 liquified petroleum gas fired boilers located on site, listed as boilers 1-6 with emission points (A1-A6). Boilers 1, 5 and 6 are used all year-round, supplying steam to the various processes. Boilers 2,3 and 4 are backup units and are only used when either boilers 1,5 or 6 are offline for maintenance or repairs.

Boilers 1,2,4 and 5 were commissioned before 20/12/2018 and are therefore considered existing MCPs and will have to comply with the emission limits by 01/01/2030. Boiler 6 is a new MCP and will comply with the requirements of the medium combustion plant directive from the start of operation. Boiler 3 has thermal input of 0.57 MWth and is therefore not classified as a medium combustion plant.

The effluent treatment system is a biological process – using microorganisms to digest the contaminants in the effluent. The effluent discharge rate from the treatment system is restricted to 194.4m³/day.

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

Status log of the permit		
Description	Date	Comments
Application PAN-000849 received (EPR/AB3697CN/A001)	Not Duly Made 04/11/16	Application for mineral water bottling plant and associated effluent treatment plant.

Status log of the permit		
Description	Date	Comments
Additional information received	23/11/16	
Application PAN-000849	Duly Made 25/11/16	
Additional information received	03/02/17	Schedule 5 notice information received. Air Quality information
Additional information received	31/03/17	Schedule 5 notice information received. Surface and Ground water information
Additional information received	18/04/17	Schedule 5 notice information received. Baseline Site Condition Report
Additional information received	02/08/17	Schedule 5 notice information received. Surface Water calculations
Additional information received	08/08/17	Schedule 5 notice information received. Surface Water Information
Additional information received	18/09/17	Information relating to the design of the drainage swale
Permit Issued EPR/AB3697CN	22/12/17	Permit issued to Radnor Hills Mineral Water Company Ltd
Regulation 61(1) notice sent to Operator	27/04/2020	Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for the Food, Drink and Milk Industries.
Regulation 61 (1) response	22/01/2021	Operator's Response to Regulation 61(1) Notice
NRW initiated variation determined EPR/AB3697CN/V002	25/03/2022	Varied permit issued to Radnor Hills Mineral Water Company Ltd. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for the Food, Drink and Milk Industries.
Application PAN-023318 received (EPR/AB3697CN/V003)	Duly Made 22/12/2023	Variation to add a new boiler (boiler 6) as a new medium combustion plant
Additional information received – Schedule 5 response	29/02/2024	Confirmation that boilers fuel is liquified petroleum gas (LPG).
Variation Determined EPR/AB3697CN/V003	22/03/2024	Variation issued to Radnor Hills Mineral Water Company Ltd.
Application PAN-024069 received (EPR/AB3697CN/V004)	Duly Made 16/05/2024	Variation to add ferric chloride dosing system to the effluent treatment plant.
Variation Determined EPR/AB3697CN/V004	12/08/2024	Variation issued to Radnor Hills Mineral Water Company Ltd.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/AB3697CN

This is the consolidated permit referred to in the variation and consolidation notice for application **EPR/AB3697CN/V004** authorising,

Radnor Hills Mineral Water Company Limited (“the operator”),

whose registered office is

Radnor Hills

Heartsease

Knighton

Powys

LD7 1LU

company registration number **03258542**

to operate an installation at

Radnor Hills

Heartsease

Knighton

Powys

LD7 1LU

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

Name	Date
Anna Griffiths	12/08/2024

Senior Specialist Advisor – Installations and RSR Permitting Team

Authorised on behalf of Natural Resources Wales

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

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

1.3 Efficient use of raw materials

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

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

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

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

- 2.3.5 For the following activities referenced in schedule 1, table S1.1, AR5, the activities shall be operated using the techniques and, in the manner, described in schedule 1, table S1.2A.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.
- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

2.5 Pre-operational conditions

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

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

3.2 Emissions of substances not controlled by emission limits

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

3.3 Odour

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

3.4 Noise and vibration

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

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 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 Natural Resources Wales.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by Natural Resources Wales.

- 3.5.5 For the following activities referenced in schedule 1, table S1.1, AR5, the first monitoring measurements shall be carried out
- (a) For new MCP within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later; and
 - (b) For existing MCP at any time but no later than 4 months after the relevant compliance date
- 3.5.6 For the following activities referenced in schedule 1, table S1.1, AR5, monitoring shall not take place during periods of start up or shut down.

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 Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a pests' management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;
 - (b) implement the pests' management plan, from the date of approval, unless otherwise agreed in writing by Natural resources Wales

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by Natural Resources Wales, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by Natural Resources Wales.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

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

4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform Natural Resources Wales,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform Natural Resources Wales, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 [(a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit,] shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) Natural Resources Wales shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 Natural Resources Wales shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, Natural Resources Wales shall be notified within one month of:

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	S6.8 A(1)(d)(ii) – treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended to produce food or feed (where the weight of the finished product excludes packaging) – only vegetable materials with a finished production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operated for a period of no more than 90 consecutive days in any year.	Production and bottling of water and soft drinks	<p>Receipt of raw materials to despatch of finished product.</p> <p>Maximum capacity limited to the agreed figure provided in response to part (b) of Improvement condition 7.</p>
AR2	S5.4 A(1)(a)(i) – Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (100 tonnes per day if the waste treatment activity is anaerobic digestion) involving one or more of the following activities; (i) biological treatment	Treatment of process effluent	<p>Receipt of effluent into the effluent treatment plant to discharge to the River Teme via a lined swale system.</p> <p>Ferric chloride solution maximum storage of 2 tonnes on hard standing surface. Ferric chloride to be stored in 25 litres vessels or 1m³ Immediate Bulk Containers upon completion of pre-operating measures PO 1.</p>
Directly Associated Activities			
AR3	Combustion plant	<p>Electricity, steam, process cooling and hot water in combustion units</p> <p>Boiler 3 (0.57 MWth)</p>	<p>Generation of steam takes using a <1 MWth liquified petroleum gas (LPG) fuelled boiler.</p> <p>Boilers 2,3 and 4 are backup and can only operate if boiler 1 and/or boiler 5 and/or boiler 6 are non-operational.</p>

Table S1.1 activities

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR4	Storage and handling of raw materials, chemicals, fuels and waste	Includes ingredients used in the process	<p>The materials listed in Appendix H of the application are the maximum quantities to be stored on-site at any one time.</p> <p>Chemicals, fuels and ingredients shall be stored bundled areas with sealed drainage connected to a collection tank</p> <p>All materials shall be stored and treated on an impermeable surface with sealed drainage system.</p>

Medium combustion plant

National Grid Reference and or activity reference	Activity listed in the EP Regulations	Description of Medium Combustion Plant and/or Specified Generator	Fuel	Operating hours limit per year
AR5	Schedule 25A – Medium Combustion Plant	<p>New MCP</p> <p>Boiler 6 4.11 MWth liquified petroleum gas fuelled boiler</p> <p>Existing MCP</p> <p>Boiler 1 1.25 MWth liquified petroleum gas fuelled boiler</p> <p>Boiler 2 2.30 MWth liquified petroleum gas fuelled boiler</p> <p>Boiler 4 1.25 MWth liquified petroleum gas fuelled boiler</p> <p>Boiler 5 1.20 MWth liquified petroleum gas fuelled boiler</p>	Gaseous fuels other than natural gas (liquified petroleum gas)	<p>Boilers 1, 5 and 6: No limit to annual operating hours</p> <p>Boilers 2 and 4 are backup and can only operate if boiler 1 and/or boiler 5 and/or boiler 6 are non-operational</p>

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Supporting Document submitted with the application. Doc ref: RH Environmental permit supporting document 2.0	17/11/16
Application	Application document: Appendix A – Radnor Hills Environmental Manual	17/11/16
Application	Application document: Appendix G – Radnor Hills BAT Assessment	17/11/16
Application	Application document: RP210i2_Rukhydro_Radnor_Hills_Effluent_Discharge_GWRA_Addendum_A_ro	18/10/16
Application	Response to 2 nd Schedule 5, doc ref: RAD02-4-100-SP-001 Specification for Process Effluent Discharge Arrangement	31/03/17
Application	Response to 2 nd Schedule 5, doc ref: PAN-000849 Radnor Hills Schedule 5 Letter Response (Discharge Location) ...	31/03/17
Application	Response to 3 rd Schedule 5, doc ref: PAN-000849 Radnor Hills Schedule 5 Letter Response (River Teme SSSI) 2.0 170621	02/08/17
Application	Response to 3 rd Schedule 5, doc ref: PAN-000849 Radnor Hills Note on SRP 2.0 170804	08/08/17
Application	Information regarding the design of the drainage swale, document ref; RAD02-4-100-007A CONCEPT FOR PROPOSED SWALE	18/09/17
Response to regulation 61(1) Notice – request for information dated 27/04/2020 detailing how the Operator will comply with the BAT conclusions for Food, Drink and Milk Industries under Directive 2010/75/EU of the European Parliament and of the Council	All	22/01/21
Additional Response To Regulation 61(1) Notice received on email	All	10/02/22
Variation application	EMS 007 MONITORING EMISSIONS PROCEDURS	22/12/23
Variation application	PAN-024069 Supporting information <ul style="list-style-type: none"> • Environmental risk assessment • Design measures and operator management control measures • Technical standards • Environmental monitoring and emission measure point 	06/12/2023
Variation application	EMF 004 (Bunding assessment)	16/05/2024

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

Each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this

The operator must keep periods of start-up and shut-down of each MCP as short as possible

There must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC1	<p>The operator shall monitor Soluble Reactive Phosphorus at 4 locations to determine the impact on the River Teme;</p> <ol style="list-style-type: none"> 1. At the outfall of the MBR or other treatment, as it leaves the main site for discharge 2. As the effluent leaves the drainage swale 3. In the river after the mixing zone (at Lingen Bridge, for example) 4. In the river, upstream of the discharge, for a background sample <p>Fortnightly samples shall be taken initially to determine the impact on the river and then monthly samples to be taken once a pattern has been established and approval has been given by Natural Resources Wales. Results will be submitted to Natural Resources Wales monthly to ensure there is no deterioration of the background Soluble Reactive Phosphorus level in the river.</p> <p>The outcome of this monitoring study will decide whether additional chemical treatment of the effluent is required prior to discharge to the environment</p> <p>At the end of the 12-month period, the operator shall submit a report with conclusions and timescales for any further work.</p>	Completed
IC2	<p>The operator shall carry out monthly temperature monitoring of the effluent that is discharged to the environment at 4 locations;</p> <ol style="list-style-type: none"> 1. At the outfall of the MBR or other treatment, as it leaves the main site for discharge 2. As the effluent leaves the drainage swale 3. In the river after the mixing zone (at Lingen Bridge, for example) 4. In the river, upstream of the discharge, for a background sample <p>Results must be submitted to Natural Resources Wales monthly. The outcome of this monitoring study will determine whether a passive heat exchanger will need to be installed to reduce the temperature of the effluent.</p> <p>At the end of the 12-month period, the operator shall submit a report with conclusions and timescales for any further work.</p>	Completed
IC3	<p>The operator will attain full accreditation for the ISO14001 Environmental Management System that is in place at Radnor Hills. A certificate will be submitted to Natural Resources Wales showing that full accreditation has been achieved.</p>	Completed

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC4	<p>The operator will carry out monthly samples of the effluent to see whether there is any nonylphenol present in the effluent above the Environmental Quality Standard.</p> <p>Results of the monitoring will be submitted to Natural Resources Wales for assessment.</p>	Completed
IC5	<p>The operator will carry out an assessment of the adequacy and condition of the current bund arrangement on-site. The outcome of this assessment and proposals for further improvements will be in-line with CIRIA 736 and submitted to Natural Resources Wales for approval prior to the commencement of any work.</p> <p>The report will include conclusions and timescales for improvements.</p>	Completed
IC6	The final design of the lined drainage swale will be submitted to Natural Resources Wales for approval prior to commencement of discharge to the River Teme	Completed
IC 7	<p>(a) The Operator shall submit to NRW the maximum capacity of the installation that was used in the most recent risk assessment submitted to NRW.</p> <p>(b) The Operator shall submit to NRW for approval the maximum capacity of the installation at the current time.</p> <p>(c) If the maximum capacity of the installation has increased from the time of the last submitted risk assessment and the current time, the Operator shall review and update the risk assessment to account for the current maximum capacity. The risk assessment shall be submitted to NRW for review.</p> <p>Notes: The capacity is to be taken and presented using the same units from the relevant sub-section of Section 6.8, Part 2, Schedule 1 of the Environmental Permitting Regulations 2016 (as from time to time amended). Capacity is to be taken as the maximum possible capacity of the installation, not the maximum actual production. The risk assessment should follow the methodology set out in The Environmental Risk Assessment (EPR-H1). You may use a methodology other than EPR-H1 however the methodology must address the same issues as in EPR-H1 to an equivalent level of detail.</p>	Completed

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC8	<p>The Operator shall submit to Natural Resources Wales an updated written procedure following additional investigate work describing how they intend to meet the following BAT requirements in accordance with the requirements specified within:</p> <ul style="list-style-type: none"> BAT Conclusion 9 of the Food, Drink and Milk Industries BRef Document (EU 2019) – In order to prevent emissions of ozone depleting substances and of substances with a high global warming potential from cooling and freezing, BAT is to use refrigerants without ozone depletion potential and with a low global warming potential <p>The report should include but not limited to</p> <ul style="list-style-type: none"> a review of the use of the current refrigerant as to whether it meets the BAT requirements as specified above and; a feasibility study and implementation plan (if appropriate) regarding the replacement of the current refrigerant with one with a lower global warming potential and no ozone depletion potential. Suitable alternatives include but not limited to ammonia, water and carbon dioxide. <p>The report shall be submitted to Natural Resources Wales by the date specified for review. Natural Resources Wales will review the report to determine if the above BAT requirements have been achieved.</p>	Completed

Table S1.4 Pre-operational measures for future development

Reference	Operation	Pre-operational measures
PO1	Ferric chloride dosing	Two weeks prior to change of ferric chloride solution storage from 25 litres to the 1m ³ Immediate Bulk Containers (IBC) the operator shall notify Natural Resource Wales in writing.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
-	-

Schedule 3 – Emissions and monitoring 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	Monitoring standard or method
A1 (A1 in air emission point plan in schedule 7)	Boiler 1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	250 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing	Periodic	Every 3 years	MCERTS certified contractor and equipment, method to follow M1
		Sulphur Dioxide	35 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing			
		Carbon Monoxide	No limit set			
		Monitoring applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing				
		Particulates	No limit applies			

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	Monitoring standard or method
A2 (A2 in air emission point plan in schedule 7)	Boiler 2	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	232 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing	Periodic	Every 3 years	MCERTS certified contractor and equipment, method to follow M1
		Sulphur Dioxide	35 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing			
		Carbon Monoxide	No limit set			
		Monitoring applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing.				
		Particulates	No limit applies			
A3 (A3 in air emission point plan in schedule 7)	Boiler 3	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No Limit Set	-	Every 3 years	MCERTS certified contractor and equipment, method to follow M1
		Particulates				
A4 (A4 in air emission point plan in schedule 7)	Boiler 4	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	232 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing	Periodic	Every 3 years	MCERTS certified contractor and equipment, method to follow M1

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	Monitoring standard or method
		Sulphur Dioxide	35 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing			
		Carbon Monoxide	No limit set			
		Monitoring applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing				
		Particulates	No limit applies			
A5 (A5 in air emission point plan in schedule 7)	Boiler 5	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	232 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing	Periodic	Every 3 years	MCERTS certified contractor and equipment, method to follow M1
		Sulphur Dioxide	35 mg/m ³ Limit applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing			

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	Monitoring standard or method
A6 (A6 in air emission point plan in schedule 7)	Boiler 6	Carbon Monoxide Monitoring applies from 01/01/2030 or other date as notified by Natural Resources Wales in writing	No limit set	Periodic	Every 3 years	MCERTS BS EN 14792
		Particulates	No limit applies			
		Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	200 mg/m ³			
		Sulphur Dioxide	35 mg/m ³		Every 3 years	MCERTS BS EN 13284-1
		Carbon Monoxide	No Limit Set		Every 3 years	MCERTS BS EN 15058

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

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 – Effluent Treatment Plant	Treated process effluent	BOD	5.00 mg/l	Instantaneous	Weekly	EN 1899-1
		COD	100 mg/l	Instantaneous	Weekly	ISO 6060 or BS ISO 15705
		Total Ammonia as N	0.50 mg/l	Instantaneous	Weekly	BS EN ISO 11732
		Total Nitrogen	20 mg/l	Instantaneous	Weekly	EN 12260 or EN ISO 11905-1
		Soluble Reactive Phosphorus as P	0.2 mg/l	Instantaneous	Weekly	BS EN ISO 15681-1 or BS EN ISO 15681-2
		Total Phosphorus	2 mg/l	Instantaneous	Weekly	EN ISO 6878, EN ISO 15681-1 and -2 or EN ISO 11885
		Total Suspended Solids	5.00 mg/l	Instantaneous	Weekly	BS EN 872
		Flow	8.1 m ³ /hour 194.4 m ³ /day	Integrated daily flow rate	Continuous	MCERTS certified equipment, method as per M18
		Temperature	Max 25°C	Instantaneous	Continuous	MCERTS certified equipment, method as per M18
		pH	Between 6.0 and 9.0	Instantaneous	Continuous	BS EN ISO 10523
		Chloride (Cl ⁻)	None set	Instantaneous	Monthly	EN ISO 10304-1, EN ISO 15682

Schedule 4 - Reporting

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4, A5 and A6	Every 3 Years	22/03/2024
Emissions to water Parameters as required by condition 3.5.1	W1	Monthly	01/09/2024

Table S4.2 Annual Production/Treatment

Parameter	Frequency of assessment	Units
Total Production Volume	Annually	tonnes
Total Waste Volume	Annually	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh
Total raw material used	Annually	tonnes

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air1 (A1) or other form as agreed in writing by Natural Resources Wales	22/03/2024
Water Discharge	Form water Discharge1 (Water1) or other form as agreed in writing by Natural Resources Wales	12/08/2024
Water usage	Form water usage1 (WU1) or other form as agreed in writing by Natural Resources Wales	22/12/17
Energy usage	Form energy1 (E1) or other form as agreed in writing by Natural Resources Wales	22/12/17
Other performance indicators	Form performance1 (PI1) or other form as agreed in writing by Natural Resources Wales	22/12/17

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	EPR/AB3697CN
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
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) Notification requirements for the breach of a permit condition	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

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

(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

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

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.

“compliance date” means 01/01/2025 for existing MCPs and a tranche A specified generator with net rated thermal input of greater than 5MW or 01/01/2030 for existing MCPs and a tranche A specified generator with a net rated thermal input of less than or equal to 5MW.

“emissions to land” includes emissions to groundwater.

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

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

“existing MCP” means an MCP first put into operation before 20/12/2018.

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

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

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

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

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

“new MCP” means an MCP first put into operation on or after 20/12/2018.

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

“year” means calendar year ending 31 December.

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

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

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

“hazardous property” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

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

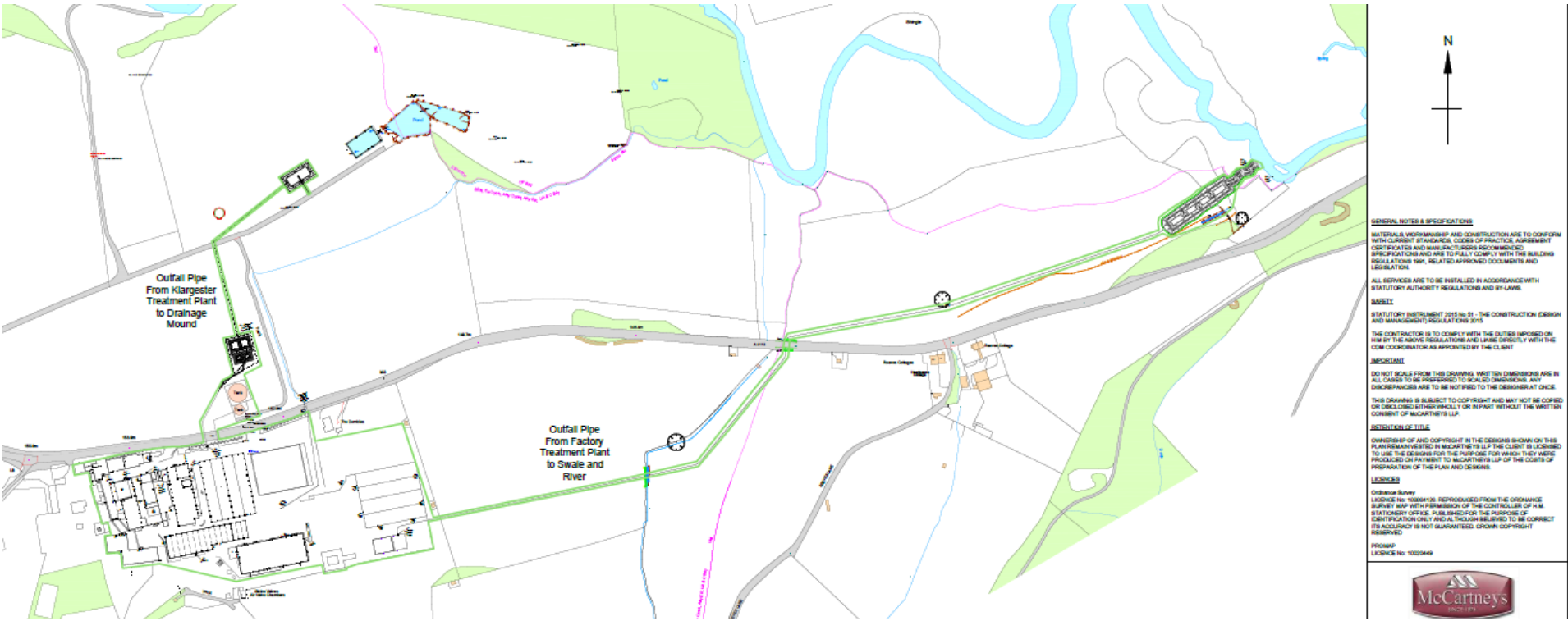
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

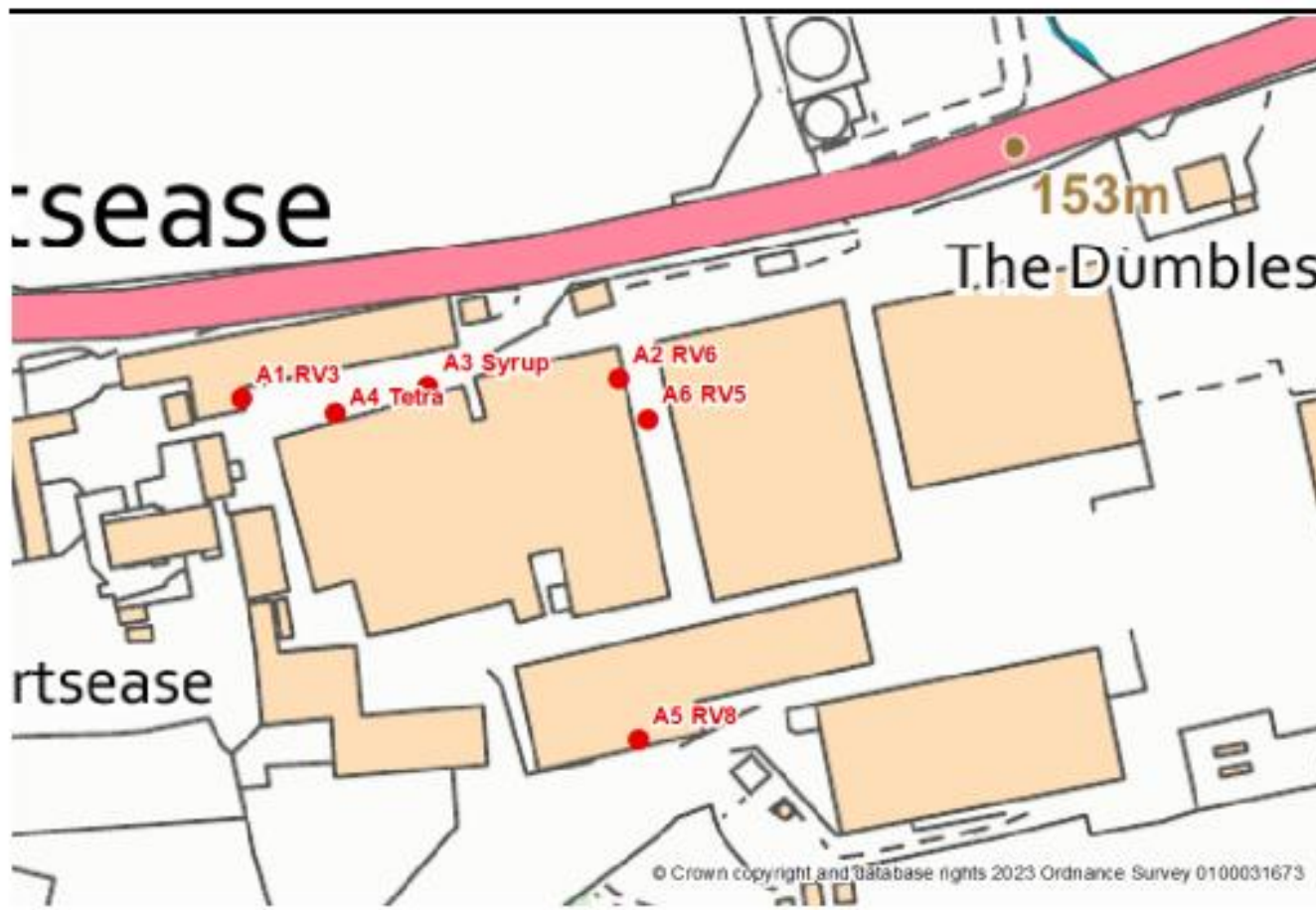
- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the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

Schedule 7 - Site plan

Site Layout plan



Air Emission point Plan



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Schedule 8 - Annex I of MCPD

1. Rated thermal input (MW) of the medium combustion plant.	<p>New A6 Boiler 6 – 4.11 MWth</p> <p>Existing A1 Boiler 1 - 1.25 MWth A2 Boiler 2 - 2.30 MWth A4 Boiler 4 - 1.25 MWth A5 Boiler 5 - 1.20 MWth</p>
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	All boiler: Other medium combustion plant
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	All Boilers: Gaseous fuels other than natural gas (100%)
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	<p>New A6 Boiler 6 – 22/03/2024</p> <p>Existing A1 Boiler 1 – Before 20/12/2018 A2 Boiler 2 – Before 20/12/2018 A4 Boiler 4 – Before 20/12/2018 A5 Boiler 5 – August 2017</p>
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	C11.0.7 Manufacture of soft drinks; production of mineral waters and other bottled waters
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	<p>New A6 Boiler 6 8760</p> <p>Existing A1 Boiler 1 and A5 Boiler 5 8760</p> <p>A2 Boiler 2 and A4 Boiler 4 Less than 500 hours</p>
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A

<p>8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.</p>	<p>Registered office and MCP address:</p> <p>Radnor Hills Heartsease Knighton Powys LD7 1LU</p>
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END OF PERMIT