Permit Number: EPR/AB3233DW Operator: GP Biotec Ltd

Facility: Great Porthamel Farm AD Plant Form Number: Air 1 / 17/08/2022

Reporting of Emissions to air for the year 2024

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1 CHP Exhaust	Oxides of Nitrogen (NO and NO2 expressed as NO2)	500mg/m^3	Hourly mean	482	BS EN 14792	30/01/2024 11:21-12:21	145
	Carbon Monoxide	1400mg/m^3	Hourly mean	1238	BS EN 15058	30/01/2024 11:21-12:21	248
	Sulphur Dioxide	350mg/m^3	Hourly mean	3.0	BS EN 14791	30/01/2024 11:21-12:21	0.26
	Total VOC's (including methane)	1000mg/m^3	Hourly mean	1190	BS EN 12619	30/01/2024 11:21-12:21	476
A2 CHP Exhaust	Oxides of Nitrogen (NO and NO2 expressed as NO2)	500mg/m^3	Hourly mean	383	BS EN 14792	30/01/2024 13:10-14:10	115
	Carbon Monoxide	1400mg/m^3	Hourly mean	630	BS EN 15058	30/01/2024 13:10-14:10	126
	Sulphur Dioxide	350mg/m^3	Hourly mean	2.4	BS EN 14791	30/01/2024 13:10-14:10	0.21
	Total VOC's (including methane)	1000mg/m^3	Hourly mean	644	BS EN 12619	30/01/2024 13:10-14:10	257
A3 Emergency Flare Stack Note5	Oxides of Nitrogen (NO and NO2 expressed as NO2)	No limit set		-	BS EN 14792		
	Total Volatile Organic Compounds (VOCs)	No limit set		-	BS EN 12619		
	Carbon Monoxide	No limit set		-	BS EN 15058		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	Hydrogen Sulphide[6]	No limit set		-	US EPA Method 11 (Impinger method), or CEN TS 13649 (Charcoal tube), US EPA Method 15		
A6 Liquid Waste Tank at Reception Area Activated carbon filtration system	Ammonia[6]	20 mg/m^3	None specified	-	EN ISO 21877		
	Hydrogen Sulphide[6]	No limit set		-	US EPA Method 11 (Impinger method), and CEN TS 13649 (Charcoal tube), US EPA Method 15		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
[5] Monitoring of flare emissions is only necessary when the flare operated in excess of 10% of the time
[6] Where emissions are unlikely to impact on sensitive receptors, operators can choose whether to monitor for odour or ammonia and hydrogen sulphide. Operators will need to justify that their choice demonstrates the continued efficacy of their abatement equipment and that the environment is protected.

Signed Date 28.01.2025

(Authorised to sign as representative of Operator)

Permit Number: EPR/AB3233DW Operator: GP Biotec Ltd

Facility: Great Porthamel Farm AD Plant Form Number: Water 1 / 09/02/2021

Reporting of emissions to water (other than to sewer) and land for the year 2024

Parameter	Units	Result
W1 - Batches of water tested for discharge criteria (ammonia, pH, and/or visual check)	number	0
W1 - Batches of water passed all tests and discharged to surface water	number	0
W1 - Batches of water failed one or more test not released to surface water	number	0
W2 - Oil and grease (visual check)	-	0

Signed  Date…28.01.2025

(Authorised to sign as representative of Operator)

Permit Number: EPR/AB3233DW Operator: GP Biotec Ltd

Facility: Great Porthamel Farm AD Plant Form Number: Performance 1 / 30/01/2024

Parameter	Units	Result
Waste treated (total)	tonnes	62,508.48
Animal waste treated	tonnes	52,390.86
Biogas produced by AD facility	m^3	4,690,000
Biomethane generated	m^3	6,237,946
Power output – Electricity generated	MWh	10,508.5
Energy efficiency	MWh/m^3 biogas	
Electrical energy exported to the grid	MWh	8420.9
Electrical energy drawn from the grid	MWh	175.16
Water usage (mains water and any other sources, specify separately)	m^3	103.782
Operational time of emergency flare	% of operational time	3.8
Amount of gas to flare	m^3	Biogas (<12hrs) Biomethane
Amount of biogas combusted in the CHP unit per day (3xCHP units /365 days)	m^3/day	12,627.397 av
Amount of biogas combusted in the backup boiler	m^3	0
Biomethane exported	m^3	3,853,412
Generation of wastewater	m^3	0
Generation of waste residues	tonnes/m^3	<1
Total propane used	m^3	101,295
Total raw material used	tonnes	73,567.65

Operator's comments:
GP Biotec has continued to operate efficiently and stable across the year of 2024 with the biological health remaining within the optimum monitoring ranges ensuring process stability. With the successful commissioning of a Gas to Grid the site exports biomethane to the national grid. The site has successfully achieved ISCC accreditation and remains PAS110 complaint for digestate output products.

Signed.  Date…28.01.2025

(Authorised to sign as representative of Operator)