

Permit Reference Number: BV4177IS

Operator: Volac International Limited

Installation: Volac Felinfach

Form Number: S1

Reporting of Emissions to Sewer for the period from 01.01.20 to 31.12.20

Emissions to Sewer							
Emission Point	Substance / Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S1	Biological oxygen demand	10,000 mg/l ^[6]	4,240	WAS001	May 2020	ALS Environmental	
S1	Chemical oxygen demand	22,162 mg/l ^[6]	5310	WAS040	May 2020	UKAS	
S1	Copper	1.0 mg/l ^[6]	0.021	WAS049	Feb 2020	1314	
S1	Lead	1.0 mg/l ^[6]	0.013	WAS049	Nov 2020	0897	
S1	Nitrogen, Total Oxidised as N	50 mg/l ^[6]	2.3	WAS036	Feb 2020	1229	
S1	Phosphate as P	150 mg/l ^[6]	75	WAS036	May 2020	1510	
S1	Suspended solids	3,324 mg/l ^[6]	684	WAS006	Dec 2020	4409	
S1	Flow	No limit applies to flow					

[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.

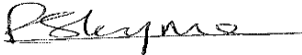
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples, the percentage of the process operating time covered by the monitoring is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated) – {The basis of any other uncertainty figure needs to be stated. Where no figure is available the Agency will need to agree an appropriate uncertainty value.}

[6] The emission limit values for biological oxygen demand, cadmium and its compounds, chemical oxygen demand, copper, lead, mercury and its compounds, nitrogen, phosphate and suspended solids are expressed as a maximum individual value.

Signed  Date.....24 January 2021
(Authorised to sign as representative of the Operator)

Date of Form: 01/03/05

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Operator: Volac International Limited

Installation: Volac Felinfach

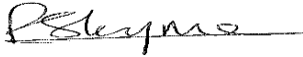
Form Number: R1

Reporting of Waste Disposal and Recovery for the year 01.01.20 to 31.12.20

Waste Disposal & Recovery			
Waste Description	Disposal		Recovery
	Route	Tonnes	Tonnes
1) Hazardous Wastes			
Named haz. Waste		1.800	0
Other hazardous wastes			
Total hazardous waste		1.800	0
2) Non-Hazardous Wastes	Land Fill	48.80	92.76
Named non-haz. Waste	Land Injected	0	0
Other non-hazardous wastes		0	0
Total non-hazardous waste		48.80	92.76
TOTAL WASTE		50.60	92.76

Trends in Waste Disposal and Recovery			
Year	Parameter		
	Named Waste	Total Waste	Waste per unit output
2018	Recovery	114.44	0.00177
2018	Land Fill	68.74	0.00106
2018	Land Injected	0	0
2019	Recovery	105.11	0.00163
2019	Land Fill	52.38	0.00081
2019	Land Injected	0	
2020	Recovery	92.759	0.00143
2020	Land Fill	48.802	0.00075
2020	Land Injected	0	0

Operator's comments. Reduction in waste per unit output year on year continues.

Signed 
(Authorised to sign as representative of the Operator)

Date.....27 January 2021

Permit Reference Number: BV4177IS

Operator: Volac International Limited

Installation: Volac Felinfach

Form Number: WU1

Reporting of Water Usage for the year 01.01.20 to 31.12.20

Water Usage		
Water Source	Usage (m ³)	Specific Usage (m ³ /t)
Mains water	45,997	0.666m ³ /T
Site borehole	283,338	4.105m ³ /T
River abstraction		
TOTAL WATER USAGE	329,335	4.772m³/T

Trends in Water Usage			
Year	Parameter		
	Named Water source	Total Water usage	Water per unit output
2017	Mains	96110	1.641m ³ /T
2017	Extracted Water	535559	9.144m ³ /T
2018	Mains	165992	2.580m ³ /T
2018	Extracted Water	497327	7.729m ³ /T
2019	Mains	160834	2.830m ³ /T
2019	Extracted Water	468000	6.240m ³ /T

Operator's comments :

The potable water recovery and re-use to utilise the filtered final effluent and significantly reduce our reliance on borehole abstracted water and mains water has been successfully in operation in 2020 .

Signed
(Authorised to sign as representative of the Operator)

Date.....27 January 2021.....

Permit Reference Number: BV4177IS/PP3431MY

Operator: Volac International Limited

Installation: Volac Felinfach

Form Number: E1 (28/08/07)

Reporting of Energy Usage for the year 01.01.20 to 31.12.20

Energy Usage			
Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	14,694,055 kWh	14,694	0.213 MWh per tonne of output
LNG	60,949,502 kWh	60,949	0.883 MWh per tonne of output
Kerosene	16,671 Ltr	179	0.00 MWh per tonne of output
Biomass wood	57,045.27 Tonnes	142,613**	
TOTAL		218,435	3.165 MWh per tonne of output

* Conversion factor for delivered electricity to primary energy = 2.6

Operator's comments :

*Electricity is grid power only. Remaining electricity was supplied from the VREL Biomass of which the biomass wood is the primary source

** Primary Energy – total tonnes of wood multiplied by 9 (avg. GJ /T) * 0.277778 = MWh

Signed
(Authorised to sign as representative of the Operator)

Date.....27 January 2021.....