

Permit Reference Number: EPR/NP3030BJ

Operator: EnerSys Ltd

Facility: EnerSys Newport

Form Number: A1

Reporting of Emissions to Air for the period from: 01/01/2022 – 31/12/2022

Emission Point	Substance / Parameter	Emission Limit Values	Reference Period	Result	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A1	Lead	1.0 mg/m ³	Spot Sample	0.18	BS EN 14385:2004	1 st December	<0.01
A2	Lead	1.0 mg/m ³		0.08		2 nd December	<0.01
A3	Lead	1.0 mg/m ³		0.18		1 st September	<0.01
A63	Lead	1.0 mg/m ³		0.24		6 th December	±0.01
A4	Lead	0.75 mg/m ³		0.39		5 th May	±0.01
A6	Lead	1.0 mg/m ³		0.57		1 st August	±0.02
A8	Lead	1.0 mg/m ³		0.14		4 th November	<0.01
A9	Lead	0.75 mg/m ³		0.1		2 nd February	<0.01
A10	Lead	1.0 mg/m ³		0.05		May	<0.01
A11	Lead	1.0 mg/m ³		0.28		2 nd August	±0.01
A12	Lead	0.75 mg/m ³		0.06		2 nd August	<0.01
A13	Lead	1.0 mg/m ³		0.04		4 th August	<0.01

- [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.

Signed ...K. Davies.....(authorised to sign as representative of the Operator)...

Date...27/01/2023.....

Permit Reference Number: EPR/NP3030BJ

Operator: EnerSys Ltd

Facility: EnerSys Newport

Form Number: A1

Reporting of Emissions to Air for the period from: 01/01/2022 – 31/12/2022

Emission Point	Substance / Parameter	Emission Limit Values	Reference Period	Result	Test Method	Sample Date and Times	Uncertainty
A1	Particulates	5.00 mg/m ³	Hourly Average	0.42	BS EN 13284-1	08/11/22	±0.04
A2	Particulates	5.00 mg/m ³	Hourly Average	0.46	BS EN 13284-1	03/11/22	±0.03
A3	Particulates	5.00 mg/m ³	Hourly Average	0.39	BS EN 13284-1	07/11/22	±0.04
A4	Particulates	5.00 mg/m ³	Hourly Average	0.51	BS EN 13284-1	09/11/22	±0.06
A6	Particulates	5.00 mg/m ³	Hourly Average	0.77	BS EN 13284-1	04/11/22	±0.05
A8	Particulates	5.00 mg/m ³	Hourly Average	1.52	BS EN 13284-1	04/11/22	±0.06
A9	Particulates	5.00 mg/m ³	Hourly Average	0.49	BS EN 13284-1	02/11/22	±0.05
A10	Particulates	5.00 mg/m ³	Hourly Average	0.46	BS EN 13284-1	09/11/22	±0.05
A11	Particulates	5.00 mg/m ³	Hourly Average	0.67	BS EN 13284-1	01/11/22	±0.05
A12	Particulates	5.00 mg/m ³	Hourly Average	0.38	BS EN 13284-1	07/11/22	±0.04
A13	Particulates	5.00 mg/m ³	Hourly Average	0.62	BS EN 13284-1	08/11/22	±0.05

Testing for Emission Point A63 was unable to be conducted as emission point and equipment was down for maintenance at the time testing was carried out. Emission point A63 has Particulate Continuous Emissions Monitors in place which gave an average reading of 0.18 mg/m³ for the whole of 2023.

Signed ...K. E. Davies.....
(authorised to sign as representative of the Operator)

Date 27/01/2023.....

Permit Reference Number: ERP/NP3030BJ Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: W1

Reporting of Emissions to Water (other than to Sewer) for the period from: 01/01/2022 – 31/12/2022

Emissions to Water							
Emission Point	Substance / Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
W1	Lead and its compounds	2.0mg/l ^[6]	2.97mg/l	WAS049	20/07/2022	ISO/IEC 17025:2005 UKAS1314	22.26%
W1	Flow	Not applicable					

[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 accreditation status of the equipment and/or 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.

[6] The emission limit value is expressed as a maximum individual value and corrected to 273K, 101.3kPa.

Signed K. E. Davies.....

Date...27/01/23.....(authorised to sign as representative of the Operator)

Permit Reference Number: ERP/NP3030BJ

Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: S1

Reporting of Emissions to Sewer for the period from: 01/01/2022 – 31/12/2022

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	Lead and its compounds.	2mg/l ^[6]	1.67	WAS049	21/12/22	ISO/IEC 17025:2005 UKAS1314	22.26%
S1	pH	6-11 ^[7]	Min – 6.15 Max – 10.51	BS EN ISO 11885	06/10/22 30/12/22	N/A	
S1	Sulphates	Not applicable	439	WAS036	02/02/22	ISO/IEC 17025:2005 UKAS1314	6.61%
S1	Suspended solids	Not applicable	299	WAS006	22/06/22	ISO/IEC 17025:2005 UKAS1314	11.39%
S1	Flow	150,000l/day *	3,570,212	Continuous	01/01/22-31/12/22	N/A	

[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 accreditation status of the equipment and/or 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.

[6] The emission limit value is expressed as a maximum individual value and corrected to 273K, 101.3kPa.

[7] The emission limit values for pH are expressed as a maximum and minimum

Signed K. E. Davies.....

Date...27/01/23.....(authorised to sign as representative of the Operator)

Permit Reference Number: ERP/NP3030BJ

Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: R1

Reporting of Waste Disposal and Recovery for the year 01/01/2022 – 31/12/2022

Waste Disposal & Recovery			
Waste Description	Disposal	Tonnes	Recovery
	Route		Tonnes
1) Hazardous Wastes			
Lead Waste Streams	Smelting		2,584
Mixed Hazardous Load	D15 Storage pending D	16.41	
Oil and Water	D09 Physio-chemical treatment	127	
Acid	D09 Physio-chemical treatment	100	
Lead Contaminated PPE	R13 Storage pending R	58.48	
Chemical Waste	R03 and R13	3.5	
Total hazardous waste		305.39	2,584
2) Non-Hazardous Wastes			
Plastic Cases	Recycled		31.52
General Waste	Energy from waste		34.22
Cardboard	Recycled		78.14
Wood	Recycled		31.52
Metal	Recycled		34.73
Paper	Recycled	10.45	
Polythene	Recycled		12.4
Total non-hazardous waste		10.45	222.53
TOTAL WASTE		315.84	2806.53

Trends in Waste Disposal and Recovery			
Year	Parameter		
	Named Waste	Total Waste	Waste per unit output
2017	ALL	3077.28	0.133T/T
	RECOVERED	2929.68	0.127T/T
	DISPOSAL	147.6	0.007T/T
2018	ALL	3082.09	0.125T/T
	RECOVERED	2824.62	0.115T/T
	DISPOSAL	257.47	0.010T/T
2019	ALL	4,751.15	0.182T/T
	RECOVERED	3,525.74	0.13T/T
	DISPOSAL	1,225.41	0.047T/T
2020	ALL	2,858.9	0.161T/T
	RECOVERED	2,423.04	0.137T/T
	DISPOSAL	435.86	0.025T/T
2021	ALL	3469.1	0.163T/T
	RECOVERED	3200.9	0.151T/T
	DISPOSAL	268.2	0.013T/T
2022	ALL	3122.37	0.14T/T
	RECOVERED	2806.53	0.13T/T
	DISPOSAL	315.84	0.014T/T

Operator's comments :
PRODUCTION OUTPUT IS 22,234.19 TONNES

Signed ...K. E. Davies.....

Date...27/01/23.....(authorised to sign as representative of the Operator)

Permit Reference Number: NP3030BJ

Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: WU1

Reporting of Water Usage for the year 01/01/2022 – 31/12/2022

Water Usage		
Water Source	Usage (m ³)	Specific Usage (m ³ /t)
Mains water	25,359	1.14
TOTAL WATER USAGE	25,359	1.14

Trends in Water Usage			
Year	Parameter		
	Named Water source	Total Water usage	Water per unit output
2017		19056	0.82m ³ /t
2018		24892	1.01m ³ /t
2019		12230	0.47m ³ /t
2020		21719	1.22 m ³ /t
2021		35298	1.67 m ³ /t
2022		25,359	1.14 m ³ /t

Operator's comments :

PRODUCTION OUTPUT IS 22,234.19 TONNES

Signed ...K. E. Davies.....

Date...27/01/23..... (authorised to sign as representative of the Operator)

Permit Reference Number: ERP/NP3030BJ Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: E1

Reporting of Energy Usage for the year 01/01/2022 – 31/12/2022

Energy Usage			
Energy Source	Energy Usage		CO ₂ Produced (tonnes)
	Quantity (MWh)	Primary Energy (MWh)	
Electricity *	24,291	58,298.4	9684.12
Natural Gas	12,384.88	12,384.88	2354.54
Gas Oil	0	0	0
Heavy Fuel Oil	0	0	0
TOTAL	36,675.88	70,683.28	12,038.66

* Conversion factor for delivered electricity to primary energy = Q x 2.4

Trends in Energy Usage			
Year	Parameter		
	Primary Energy usage	CO ₂ produced	CO ₂ per unit output
2017	74500.3	12712.6	0.5498T/T
2018	77656.4	13242.7	0.5375T/T
2019	79403.7	13523.6	0.5186T/T
2020	63766.84	10871.4	0.6141T/T
2021	73565.93	12598.1	0.5947T/T
2022	70683.28	12038.66	0.5414T/T

Operator's comments :

ELECTRICITY CO2 PRODUCED = 58298.4 / 6.02

GAS CO2 PRODUCED = P / 5.26

PRODUCTION TONNAGE = 22,234.19

Signed ...K. E. Davies.....

Date...27/01/23..... (authorised to sign as representative of the Operator)

Permit Reference Number: ERP/NP3030BJ Operator: Enersys Ltd

Facility: Enersys Newport

Form Number: P11

Reporting of Performance Indicators for the year 01/01/2022 – 31/12/2022

Annual Production/Treatment	
Production of Battery Products	22,234.19 Tonnes

Environmental Performance Indicators

Performance Indicators			Trends in Environmental Performance					
Parameter	Annual Average	Units						
Energy Use	1650	kWh/tonne	Year	Parameter				
Potable water use	1.14	m3/tonne		Potable water use	Energy Use	Waste Disposed	Waste recovered	Mass lead released
Waste disposed	0.014	T/tonne	2017	0.82m ³ /t	1697kWh/T	147.6Tonnes	2929.68Tonnes	66.17Kg
Waste recovered	0.13	T/tonne	2018	1.01m ³ /t	1652kWh/T	257.5Tonnes	2824.60Tonnes	104.1Kg
Mass lead released	0.004	Kg/tonne	2019	0.47m ³ /t	1579kWh/T	1225.41 Tonnes	3525.74Tonnes	95.5Kg
			2020	1.22 m ³ /t	1884kWh/T	435.86 Tonnes	2423.04 Tonnes	79.02Kg
			2021	1.67 m ³ /t	1880kWh/T	268.2 Tonnes	3200.90 Tonnes	36.29Kg
			2022	1.14 m ³ /t	1650kWh/t	315.84 Tonnes	2806.53 Tonnes	89.35Kg
Operator's comments :								
Production Tonnage is 22,234.19								

Signed ...K. E Davies.....

Date...27/01/23..... (authorised to sign as representative of the Operator)