

Permit Number: EPR/EP3230BW

Operator:

EnviroWales Limited

Facility:

Rassau Recycling Facility Form Number: Air1 / 15/04/2014

Reporting of emissions to air for the period from 01/01/2016 to 31/12/2016

Emission Point	Substance / Parameter	Emission			Reference Period	Result ^[1] mg/m ³	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value							
A1	Sulphuric Acid mist	1 mg/m ³		6 Monthly extractive sample	0.07	US EPA method 8	18/07/2016 11:52-12:55	13%	
A1	Total Particulate	5 mg/m ³		Extractive sample	3.09	BS EN 13284-1	18/07/2016 16:55-17:57	10%	
A1	Cadmium and compounds (as element)	0.5 mg/m ³		Extractive sample	0.012	BS EN 14385	18/07/2016 13:18-15:20	12%	
A1	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³	Quarterly extractive sample	Extractive sample	0.47	BS EN 14385	18/07/2016 13:18-15:20	12%	
A1	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³		Extractive sample	0.02	BS EN 14385	18/07/2016 13:18-15:20	8%	
A1	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³		Extractive sample	0.015	BS EN 14385	18/07/2016 13:18-15:20	7%	
A1	Mercury (as element)	0.5 mg/m ³		Extractive sample	0.00027	BS EN 14385	17/11/2016 12:31-14:33	12%	

Emission Point	Substance / Parameter	Emission				Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
		Limit Value	Reference Period	Result [1] mg/m ³				
A2	Lead and compounds (as metal)	2 mg/m ³	Extractive sample	0.4	BS EN 14385	13/05/2016 9:59-12:31	11%	
A2	Total Particulate	5 mg/m ³	Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 4.86	BS EN 13284-1	13/05/2016 13:04-14:04	8%	
A2		10 mg/m ³	Daily average		EN 14181			
A2	Sulphur Dioxide	500 mg/m ³	Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 39.56	BS EN 14791	13/05/2016 11:01-12:30	4%	
A2		500 mg/m ³	Daily average		EN 14181			
A2	Hydrogen Chloride	10 mg/m ³	Extractive sample	0.09	BS EN 1911	25/07/2016 15:29-16:29	13%	
A2	Cadmium and compounds (as element)	0.5 mg/m ³	Extractive sample	0.005	BS EN 14385	13/05/2016 9:59-12:31	12%	
A2	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample	Extractive sample	0.48	BS EN 14385	13/05/2016 9:59-12:31	10%	
A2	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³	Extractive sample	0.02	BS EN 14385	16/11/2016 13:45-15:45	8%	

Emission Point	Substance / Parameter	Emission				Reference Period	Result ^[1] mg/m ³	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value								
A2	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³		Extractive sample	0.0093	BS EN 14385	13/05/2016 9:59-12:31	7%		
A2	Mercury (as element)	0.5 mg/m ³		Extractive sample	0.042	BS EN 14385	13/05/2016 9:59-12:31	12%		
A2	Dioxins and Furans (ITEQ)	0.1 ng/m ³		Extractive sample (min 4 hrs max 8hrs)	0.0076ng/m ³	BS EN 1948	27/07/2016 08:49-14:49	25%		
A2	Oxides of Nitrogen	100 mg/m ³		Monthly CEMS average and Extractive sample Daily average	CEMS Averages (See graph) 52.11	BS EN 14792	16/11/2016 12:51-14:20	2%		
A2	Carbon Monoxide	1000 mg/m ³		Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 719.12	EN 14181 BS EN 15058	13/05/2016 11:01-12:30	4%		
A2	Volatile Organic Compounds	50 mg/m ³		Monthly CEMS average and Extractive sample Daily average	CEMS Averages (See graph) 40.08	BS EN 13649 EN 14181	13/05/2016 10:01-11:00	2%		
A3	Lead and compounds (as metal)	2 mg/m ³		Extractive sample	0.088	BS EN 14385	15/11/2016 13:04-15:04	11%		
A3	Total Particulate	5 mg/m ³		Monthly CEMS average and Extractive sample Daily average	CEMS Averages (See graph) 1.28	BS EN 13284-1 EN 14181	10/05/2016 12:21-13:21	15%		

Emission Point	Emission			Reference Period	Result ⁽¹⁾ mg/m ³	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
	Substance / Parameter	Limit Value						
A3	Sulphur Dioxide	500 mg/m ³		Extractive sample	4.86	BS EN 14791	16/11/2016 10:38-12:07	4%
A3	Hydrogen Chloride	10 mg/m ³		Extractive sample	0.08	BS EN 1911	10/05/2016 12:21-13:21	13%
A3	Cadmium and compounds (as element)	0.5 mg/m ³		Extractive sample	0.00077	BS EN 14385	10/05/2016 9:33-11:33	12%
A3	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample		Extractive sample	0.17	BS EN 14385	15/11/2016 13:04-15:04	7%
A3	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³		Extractive sample	0.0036	BS EN 14385	10/05/2016 9:33-11:33	7%
A3	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³		Extractive sample	0.0024	BS EN 14385	26/07/2016 10:02-12:02	6%
A3	Mercury (as element)	0.5 mg/m ³		Extractive sample	0.0025	BS EN 14385	15/11/2016 13:04-15:04	13%
A3	Dioxins and Furans (ITEQ)	0.1 ng/m ³		Extractive sample (min 4 hrs max 8hrs)	0.0035 ng/m ³	BS EN 1948	10/05/2016 8:20-11:33	21%
A3	Oxides of Nitrogen	100 mg/m ³		Extractive sample	3.66	BS EN 14792	11/05/2016 9:36-11:05	3%
A3	Carbon Monoxide	150 mg/m ³		Extractive sample	11.92	BS EN 15058	16/11/2016 10:38-12:07	3%

Emission Point	Substance / Parameter	Emission			Reference Period	Result ^[1] mg/m ³	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value							
A3	Volatile Organic Compounds	50 mg/m ³		Extractive sample	5.26	BS EN 13649	15/11/2016 11:11-12:10	4%	
A4	Lead and compounds (as metal)	2 mg/m ³		Extractive sample	0.073	BS EN 14385	09/05/2016 10:24-12:24	11%	
A4	Total Particulate	5 mg/m ³		Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 0.51	BS EN 13284-1	14/11/2016 12:55-13:55	13%	
A4		10 mg/m ³		Daily average		EN 14181			
A4	Cadmium and compounds (as element)	0.5 mg/m ³		Extractive sample	0.00068	BS EN 14385	09/05/2016 10:24-12:24	9%	
A4	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³	Quarterly extractive sample	Extractive sample	0.45	BS EN 14385	14/11/2016 14:13-16:13	7%	
A4	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³		Extractive sample	0.021	BS EN 14385	14/11/2016 14:13-16:13	2%	
A4	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³		Extractive sample	0.0031	BS EN 14385	09/05/2016 10:24-12:24	6%	
A4	Mercury (as element)	0.5 mg/m ³		Extractive sample	0.00098	BS EN 14385	14/11/2016 14:13-16:13	12%	
A5	Sulphur Dioxide	50 mg/m ³		Extractive sample	9.99	BS EN 14791	09/05/2016 10:19-11:48	4%	
A5	Oxides of Nitrogen	100 mg/m ³		Extractive sample	99.38	BS EN 14792	09/05/2016 10:19-11:48	5%	

Emission Point	Substance / Parameter	Emission			Reference Period	Result ^[1] mg/m ³	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value							
A5	Carbon Monoxide	150 mg/m ³		Extractive sample	14.56	BS EN 15058	14/11/2016 14:43-16:12	4%	
A5	Volatile Organic Compounds	50 mg/m ³		Extractive sample	30.77	BS EN 13649	27/07/2016 11:15-12:44	2%	
A6	Lead and compounds (as metal)	2 mg/m ³		Extractive sample	Not operational	BS EN 14385			
A6	Total Particulate	5 mg/m ³		Extractive sample	Not operational	BS EN 13284-1			
A6	Sulphur Dioxide	500 mg/m ³		Monthly	Not operational	BS EN 14791			
A6	Oxides of Nitrogen	100 mg/m ³		Monthly	Not operational	BS EN 14792			
A7	Particulates	No visible emission			No visible emission				
A8	Particulates	No visible emission			No visible emission				

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. 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.

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.

The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

S. B. K. 003

Signed Date...27/01/2017
(Authorised to sign as representative of Operator)

Permit Number: EPR/EP3230BW

Operator: EnviroWales Limited

Facility: Rassau Recycling Facility

Form Number: Sewer1 / 15/04/2014

Reporting of emissions to sewer for the period from 01/01/2016 to 31/12/2016

Emission Point	Substance / Parameter	Emission			Reference Period	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
		Limit Value							
S1	Flow	350m ³ /day		Daily average	151 M ³	Meter MCERTs	31/01/15		
S1	Suspended solids	400 mg/l		Weekly average	36	BS EN 872	31/10/15		
S1	Hydrocarbon oil	No visible staining		Daily samples	No visible	SCA blue book 77	daily		
S1	pH max	11		-	9.2	BS ISO 10523	31/10/15		
S1	pH min	6			7.1		01/10/15		
S1	Sulphate	2000 mg/l		Weekly average	1660	SCA blue book 136	19/02/15		
S1	Antimony and its compounds (as Sb)	2.5 mg/l		Weekly average	0.139	BS EN ISO 15586	06/03/15		
S1	Arsenic and its compounds (as As)	2.5 mg/l		Weekly average	0.0507	BS EN ISO 11969	13/08/15		
S1	Cadmium and its compounds (as Cd)	0.25 mg/l		Weekly average	0.0514	BS EN ISO 5961	05/02/15		
S1	Copper and its compounds (as Cu)	12.5 mg/l		Weekly average	0.072	BS 6068-2.29	01/10/15		
S1	Lead and its compounds (as Pb)	5 mg/l		Weekly average	1.74	BS EN ISO 15586	31/10/15		
S1	Mercury and its compounds (as Hg)	0.125 mg/l		Weekly average	0.0001	BS EN 1483	09/07/15		

Emission Point	Substance / Parameter	Emission			Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
		Limit Value	Reference Period	Result [1]			
S1	Nickel and its compounds (as Ni)	12.5 mg/l	Weekly average	0.117	BS 6068-2.29	01/10/15	
S1	Zinc and its compounds (as Zn)	12.5 mg/l	Weekly average	0.456	BS 6068-2.29	01/10/15	

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. 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. 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.

The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed



(Authorised to sign as representative of Operator)

Date...27th Jan 2017

Permit Number: EPR/EP3230BW

Operator: EnviroWales Limited

Facility: Rassau Recycling Facility

Form Number: Water1 / 15/04/2014

Reporting of emissions to water (other than to sewer) and land for the period from Jan 1st 2016 to 31st DEC 2016

Emission Point	Substance / Parameter	Emission		Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value						
W1	Lead				ND	BS 6068-2.29		
W1	pH				ND	BS ISO 10523		
W1	Suspended solids				ND	BS EN 872		
W1	Oil and grease				ND	SCA blue book 77		
W1	Sulphate				ND	SCA blue book 136		

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. 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. 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.

The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....Jan 31st 2017.

(Authorised to sign as representative of Operator)

ND = No Discharge

Permit Number: EPR/EP3230BW

Operator: EnviroWales Limited

Facility: Rassau Recycling Facility

Form Number: WaterUsage1 / 15/04/2014

Reporting of Water Usage for the year 2016

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	29809	0.48
TOTAL WATER USAGE	29809	0.48

Operator's comments :

Signed

Date...30th January 2017

(authorised to sign as representative of Operator)

Permit Number: EPR/EP3230BW

Operator: EnviroWales Limited

Facility: Rassau Recycling Facility

Form Number: DM1 / 15/04/2014

Reporting of particulates for the period from 01/01/2016 to 31/12/2016

Substance / Parameter	Reference Period	Result	Test Method	Sample Date and Times	Uncertainty
Particulate Matter	Reported as quarterly rolling average	16.17 $\mu\text{g}/\text{m}^3$	BS 1747-1	Monthly	
Lead	Reported as quarterly rolling average	0.038 $\mu\text{g}/\text{m}^3$	BS 1747-1	Monthly	

Signed

Date 30th January 2017

(Authorised to sign as representative of Operator)

NB

Above results do not include December data due to power supply loss at site of monitor.

Permit Number: EPR/EP3230BW

Operator: EnviroWales Limited

Facility: Rassau Recycling Facility

Form Number: Energy1 / 15/04/2014

Reporting of Energy Usage for the year 2016

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh	33036	0.54
Natural Gas	MWh	41996	0.68
TOTAL	-	75032	1.21

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

Correction in gas bill this year accounts for step-change in usage.

Signed



Date 30th January 2017

(Authorised to sign as representative of Operator)

Permit Number: EPR/EP3230BW Operator: EnviroWales Limited
 Facility: Rassau Recycling Facility Form Number: Performance1 / 15/04/2014

Reporting of other performance indicators for the period 01/01/2016 to 31/12/2016

Parameter	Units
Total raw material used	69,074 Annually *
Battery recycling efficiencies	96% Annually
Total amount of raw material received on site	69,074 tonnes **
Amount of raw material sent for smelting & refining	82,827tonnes***
Screened material sent for off-site disposal	6,390 tonnes ****

Operator's comments :
 *Total raw materials used includes all deliveries of Lead bearing materials to site, including whole batteries.
 ** This is the same figure as detailed under * .
 ***This includes all lead bearing materials etc.
 **** This is furnace slag

Signed  Date 30th January 2017

(Authorised to sign as representative of Operator)

