

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 01/01/2015 to 31/12/2015**

Emission Point	Emission				Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	Substance / Parameter	Limit Value	Reference Period	Result [1] mg/m ³			
A1	Sulphuric Acid mist	1 mg/m ³	6 Monthly extractive sample	0.87	US EPA method 8	27/02/2015 13:10-14:14	13%
A1	Total Particulate	5 mg/m ³	Extractive sample	1.69	BS EN 13284-1	29/10/2015 12:58-14:00	18%
A1	Cadmium and compounds (as element)	0.5 mg/m ³	Extractive sample	0.0024	BS EN 14385	09/07/2015 08:48-13:52	12%
A1	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample	Extractive sample	0.41	BS EN 14385	29/10/2015 08:01-10:04	12%
A1	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³	Extractive sample	0.015	BS EN 14385	09/07/2015 08:48-10:52	8%
A1	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³	Extractive sample	0.0048	BS EN 14385	29/10/2015 08:01-10:04	7%
A1	Mercury (as element)	0.5 mg/m ³	Extractive sample	0.0002	BS EN 14385	29/10/2015 08:01-10:04	12%

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result ^[1] mg/m ³	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A2	Lead and compounds (as metal)	2 mg/m ³	Extractive sample	0.69	BS EN 14385	08/07/2015 08:12-10:12	13%
A2	Total Particulate	5 mg/m ³	Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 1.93	BS EN 13284-1	08/07/2015 10:32-11:32	15%
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) 319.72	BS EN 14791	07/07/2015 13:30-14:59	4%
A2		500 mg/m ³	Daily average		EN 14181		
A2	Hydrogen Chloride	10 mg/m ³	Extractive sample	0.04	BS EN 1911	08/07/2015 10:32-11:32	13%
A2	Cadmium and compounds (as element)	0.5 mg/m ³	Extractive sample	0.0056	BS EN 14385	28/10/2015 08:11-10:11	11%
A2	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample	Extractive sample	0.75	BS EN 14385	08/07/2015 08:12-10:12	12%
A2	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³	Extractive sample	0.02	BS EN 14385	08/07/2015 08:12-10:12	9%

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			0.0087	BS EN 14385	28/10/2015 08:11-10:11	8%
A2		Mercury (as element)	0.5 mg/m ³	Extractive sample			0.0054	BS EN 14385	28/10/2015 08:11-10:11	13%
A2		Dioxins and Furans (ITEQ)	0.1 ng/m ³	Extractive sample (min 4 hrs max 8hrs)			0.028ng/m ³	BS EN 1948	27/10/2015 08:43-14:43	16%
A2		Oxides of Nitrogen	100 mg/m ³ 200 mg/m ³	Monthly CEMS average and Extractive sample Daily average			CEMS Averages (See graph) 77.21	BS EN 14792	24/02/2015 12:51-14:20	3%
A2		Carbon Monoxide	1000 mg/m ³	Monthly CEMS average and Extractive sample			CEMS Averages (See graph) 703.49	EN 14181 BS EN 15058	07/07/2015 13:30-14:59	7%
A2		Volatile Organic Compounds	50 mg/m ³ 100 mg/m ³	Monthly CEMS average and Extractive sample Daily average			CEMS Averages (See graph) 34.61	BS EN 13649 EN 14181	27/10/2015 13:54-14:53	2%
A3		Lead and compounds (as metal)	2 mg/m ³	Extractive sample			1.18	BS EN 14385	27/10/2015 08:05-10:05	14%
A3		Total Particulate	5 mg/m ³ 10 mg/m ³	Monthly CEMS average and Extractive sample Daily average			CEMS Averages (See graph) 0.77	BS EN 13284-1 EN 14181	07/07/2015 11:39-12:39	29%

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	Sulphur Dioxide	500 mg/m ³	Extractive sample	9.47	BS EN 14791	24/02/2015 10:41-12:10	5%			
A3	Hydrogen Chloride	10 mg/m ³	Extractive sample	0.09	BS EN 1911	27/10/2015 11:08-12:08	13%			
A3	Cadmium and compounds (as element)	0.5 mg/m ³	Extractive sample	0.00081	BS EN 14385	27/10/2015 08:05-10:05	12%			
A3	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample	Extractive sample	1.21	BS EN 14385	27/10/2015 08:05-10:05	14%			
A3	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³	Extractive sample	0.14	BS EN 14385	27/10/2015 08:05-10:05	10%			
A3	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³	Extractive sample	0.0084	BS EN 14385	27/10/2015 08:05-10:05	9%			
A3	Mercury (as element)	0.5 mg/m ³	Extractive sample	0.0088	BS EN 14385	07/07/2015 08:58-10:58	13%			
A3	Dioxins and Furans (ITEQ)	0.1 ng/m ³	Extractive sample (min 4 hrs max 8hrs)	0.0034 ng/m ³	BS EN 1948	24/02/2015 09:08-15:08	17%			
A3	Oxides of Nitrogen	100 mg/m ³	Extractive sample	1.91	BS EN 14792	07/07/2015 11:21-12:50	7%			
A3	Carbon Monoxide	150 mg/m ³	Extractive sample	35.27	BS EN 15058	24/02/2015 10:41-12:10	5%			

Emission Point	Emission				Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	Substance / Parameter	Limit Value	Reference Period	Result [1] mg/m ³			
A3	Volatile Organic Compounds	50 mg/m ³	Extractive sample	34.17	BS EN 13649	27/10/2015 11:26-12:25	2%
A4	Lead and compounds (as metal)	2 mg/m ³	Extractive sample	0.058	BS EN 14385	26/10/2015 10:01-12:01	12%
A4	Total Particulate	5 mg/m ³	Monthly CEMS average and Extractive sample	CEMS Averages (See graph) 2.15	BS EN 13284-1	23/02/2015 14:45-15:45	13%
A4		10 mg/m ³	Daily average		EN 14181		
A4	Cadmium and compounds (as element)	0.5 mg/m ³	Extractive sample	0.00052	BS EN 14385	26/10/2015 10:01-12:01	11%
A4	Copper, lead, nickel, zinc and their compounds (as metal)	2 mg/m ³ Quarterly extractive sample	Extractive sample	0.097	BS EN 14385	26/10/2015 10:01-12:01	8%
A4	Antimony, tin, tellurium and their compounds (as element)	2 mg/m ³	Extractive sample	0.0088	BS EN 14385	26/10/2015 10:01-12:01	2%
A4	Cadmium, arsenic, thallium, selenium, and their compounds (as element)	0.5 mg/m ³	Extractive sample	0.0025	BS EN 14385	26/10/2015 10:01-12:01	6%
A4	Mercury (as element)	0.5 mg/m ³	Extractive sample	0.0002	BS EN 14385	23/02/2015 11:52-13:52	12%
A5	Sulphur Dioxide	50 mg/m ³	Extractive sample	36.97	BS EN 14791	06/07/2015 11:55-13:24	5%
A5	Oxides of Nitrogen	100 mg/m ³	Extractive sample	99.99	BS EN 14792	26/10/2015 12:47-14:59	4%

Emission Point	Substance / Parameter	Emission			Result ⁽¹⁾ mg/m ³	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
		Limit Value	Reference Period					
A5	Carbon Monoxide	150 mg/m ³	Extractive sample		27.35	BS EN 15058	26/10/2015 12:47-14:59	5%
A5	Volatile Organic Compounds	50 mg/m ³	Extractive sample		22.83	BS EN 13649	26/10/2015 13:47-14:46	3%
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. D. K. 00

Signed Date...04/01/2016.....
(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 01/01/2015 to 31/12/2015

Emission Point	Emission		Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	Substance / Parameter	Limit Value					
S1	Flow	350m ³ /day	Daily average	289 M ³	Meter MCERTs	31/01/15	
S1	Suspended solids	400 mg/l	Weekly average	16	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		10	BS ISO 10523	31/10/15	
S1	pH min	6		6.3		01/10/15	
S1	Sulphate	2000 mg/l	Weekly average	1620	SCA blue book 136	19/02/15	
S1	Antimony and its compounds (as Sb)	2.5 mg/l	Weekly average	.091	BS EN ISO 15586	06/03/15	
S1	Arsenic and its compounds (as As)	2.5 mg/l	Weekly average	.0059	BS EN ISO 11969	13/08/15	
S1	Cadmium and its compounds (as Cd)	0.25 mg/l	Weekly average	0.159	BS EN ISO 5961	05/02/15	
S1	Copper and its compounds (as Cu)	12.5 mg/l	Weekly average	0.232	BS 6068-2.29	01/10/15	
S1	Lead and its compounds (as Pb)	5 mg/l	Weekly average	1.35	BS EN ISO 15586	31/10/15	
S1	Mercury and its compounds (as Hg)	0.125 mg/l	Weekly average	.00045	BS EN 1483	09/07/15	

Emission Point	Substance / Parameter	Emission			Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value	Reference Period					
S1	Nickel and its compounds (as Ni)	12.5 mg/l	Weekly average	0.561	BS 6068-2.29	01/10/15		
S1	Zinc and its compounds (as Zn)	12.5 mg/l	Weekly average	3.89	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

S. S. K. 2007

(Authorised to sign as representative of Operator)

Date... 27th Jan 2016

Permit Number: EPR/EP3230BW Operator: EnviroWales Limited
 Facility: Rassau Recycling Facility Form Number: DM1 / 15/04/2014

Reporting of particulates for the period from 01/01/2015 to 31/12/2015

Substance / Parameter		Reference Period	Result	Test Method	Sample Date and Times	Uncertainty
Particulate Matter		Reported as quarterly rolling average	35.7 µg/m³	BS 1747-1	Monthly	
Lead		Reported as quarterly rolling average	0.074 µg/m³	BS 1747-1	Monthly	

Signed



Date 29th January 2016

(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 2015

Energy Source	Energy Usage		Primary Energy (MWh)	Specific Usage (MWh/unit output)
	Quantity			
Electricity *	MWh		29515	0.48
Natural Gas	MWh		22449	0.36
TOTAL	-		51964	0.84

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

Signed 

Date 29th January 2016

(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 01/01/2015 to 31/12/2015

Parameter	Units
Total raw material used	65720.00 Annually *
Battery recycling efficiencies	96.00 % Annually
Total amount of raw material received on site	65720.00 tonnes **
Amount of raw material sent for smelting & refining	61512 tonnes***
Screened material sent for off-site disposal	6705.93 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 29th January 2016.

(Authorised to sign as representative of Operator)

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 2015 to 31st DEC 2015

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 22nd 2016.

(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 2015

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	29365	0.47
TOTAL WATER USAGE	29365	0.47

Operator's comments :

Signed  Date...29th January 2016

(authorised to sign as representative of Operator)

