

Reporting of Emission to Surface Water for the period from 1st Jan 2022 to 30th June 2022.

Operator : RWE Generation UK plc

Form: Water1

Location: Aberthaw Ash Disposal Site

Permit/Variation Number: DP3432SW

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S1 (Group Five Spring)	Aluminium, Dissolved		89.0 µg/l		01/03/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		1.6 µg/l				
	Arsenic Dissolved		42.0 µg/l				
	Boron, Dissolved		5900 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		540 mg/l				
	Chromium, Dissolved		0.6 µg/l				
	Copper, Dissolved		2.7 µg/l				
	Magnesium, Dissolved		63 mg/l				
	Manganese, Dissolved		1700 µg/l				
	Molybdenum, Dissolved		450 µg/l				
	Nickel, Dissolved		1.8 µg/l				
	Selenium Dissolved		2.0 µg/l				
	Vanadium, Dissolved		3.3 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		243 mg/l				
	Conductivity at 20C		8550 µS/cm				
	Potassium, Dissolved		98 mg/l				
	Sodium, Dissolved		1470 mg/l				
	Sulphate, Dissolved as SO4		642 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		2690 mg/l				
	Fluoride		0.2 mg/l				
	Ammoniacal Nitrogen as N		0.5 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.2 mg/l				
	pH		7.2 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S1 (Group Five Spring)	Aluminium, Dissolved		<75 µg/l		25/04/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<16 µg/l				
	Arsenic Dissolved		30.0 µg/l				
	Boron, Dissolved		13000 µg/l				
	Cadmium, Dissolved		<0.7 µg/l				
	Calcium, Dissolved		1100 mg/l				
	Chromium, Dissolved		<5.1 µg/l				
	Copper, Dissolved		<18 µg/l				
	Magnesium, Dissolved		86 mg/l				
	Manganese, Dissolved		310 µg/l				
	Molybdenum, Dissolved		4900 µg/l				
	Nickel, Dissolved		<10 µg/l				
	Selenium Dissolved		42.0 µg/l				
	Vanadium, Dissolved		58.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		116 mg/l				
	Conductivity at 20C		16500 uS/cm				
	Potassium, Dissolved		208 mg/l				
	Sodium, Dissolved		3030 mg/l				
	Sulphate, Dissolved as SO4		1600 mg/l				
	Nitrogen : Total Oxidised as N		16.4 mg/l				
	Chloride		5540 mg/l				
	Fluoride		<0.1 mg/l				
	Ammoniacal Nitrogen as N		2.22 mg/l				
	Carbon, Organic : Total as C :- {TOC}		6.3 mg/l				
	pH		7.6 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Eastern Perimeter Drain	Aluminium, Dissolved		23.0 µg/l		01/03/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		1.7 µg/l				
	Boron, Dissolved		2800 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		180 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		16 mg/l				
	Manganese, Dissolved		120 µg/l				
	Molybdenum, Dissolved		390 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		5.8 µg/l				
	Vanadium, Dissolved		2.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		219 mg/l				
	Conductivity at 20C		1410 uS/cm				
	Potassium, Dissolved		18 mg/l				
	Sodium, Dissolved		116 mg/l				
	Sulphate, Dissolved as SO4		259 mg/l				
	Nitrogen : Total Oxidised as N		1.5 mg/l				
	Chloride		182 mg/l				
	Fluoride		0.2 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.9 mg/l				
	pH		8.0 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Eastern Perimeter Drain	Aluminium, Dissolved		110.0 µg/l		25/04/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		1.5 µg/l				
	Boron, Dissolved		4300 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		280 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		25 mg/l				
	Manganese, Dissolved		78 µg/l				
	Molybdenum, Dissolved		890 µg/l				
	Nickel, Dissolved		1.1 µg/l				
	Selenium Dissolved		5.0 µg/l				
	Vanadium, Dissolved		1.8 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		263 mg/l				
	Conductivity at 20C		2380 uS/cm				
	Potassium, Dissolved		28 mg/l				
	Sodium, Dissolved		276 mg/l				
	Sulphate, Dissolved as SO4		535 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		403 mg/l				
	Fluoride		0.2 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.0 mg/l				
	pH		8.3 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S3 (River Thaw)	Aluminium, Dissolved		280.0 µg/l		01/03/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		0.5 µg/l				
	Boron, Dissolved		<60 µg/l				
	Cadmium, Dissolved		0.1 µg/l				
	Calcium, Dissolved		100 mg/l				
	Chromium, Dissolved		0.7 µg/l				
	Copper, Dissolved		1.9 µg/l				
	Magnesium, Dissolved		12 mg/l				
	Manganese, Dissolved		17 µg/l				
	Molybdenum, Dissolved		9 µg/l				
	Nickel, Dissolved		1.1 µg/l				
	Selenium Dissolved		<0.6 µg/l				
	Vanadium, Dissolved		0.7 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		270 mg/l				
	Conductivity at 20C		674 uS/cm				
	Potassium, Dissolved		3 mg/l				
	Sodium, Dissolved		34 mg/l				
	Sulphate, Dissolved as SO4		22 mg/l				
	Nitrogen : Total Oxidised as N		2.8 mg/l				
	Chloride		61 mg/l				
	Fluoride		0.1 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.0 mg/l				
	pH		8.1 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S3 (River Thaw)	Aluminium, Dissolved		98.0 µg/l		25/04/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		0.5 µg/l				
	Boron, Dissolved		80 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		100 mg/l				
	Chromium, Dissolved		0.6 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		15 mg/l				
	Manganese, Dissolved		13 µg/l				
	Molybdenum, Dissolved		30 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		0.6 µg/l				
	Vanadium, Dissolved		0.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		274 mg/l				
	Conductivity at 20C		703 uS/cm				
	Potassium, Dissolved		4 mg/l				
	Sodium, Dissolved		32 mg/l				
	Sulphate, Dissolved as SO4		39 mg/l				
	Nitrogen : Total Oxidised as N		5.6 mg/l				
	Chloride		62 mg/l				
	Fluoride		0.1 mg/l				
	Ammoniacal Nitrogen as N		0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.1 mg/l				
	pH		8.4 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Brackish Lagoon	Aluminium, Dissolved		7.6 µg/l		01/03//2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		1.8 µg/l				
	Boron, Dissolved		4200 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		270 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		281 mg/l				
	Manganese, Dissolved		16 µg/l				
	Molybdenum, Dissolved		750 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		1.7 µg/l				
	Vanadium, Dissolved		1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		204 mg/l				
	Conductivity at 20C		12700 uS/cm				
	Potassium, Dissolved		120 mg/l				
	Sodium, Dissolved		2560 mg/l				
	Sulphate, Dissolved as SO4		793 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		4280 mg/l				
	Fluoride		0.4 mg/l				
	Ammoniacal Nitrogen as N		0.27 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.4 mg/l				
	pH		8.4 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Brackish Lagoon	Aluminium, Dissolved		<75 µg/l		25/04/2022	Sampling Station / Testing ALS	
	Antimony, Dissolved		<16 µg/l				
	Arsenic Dissolved		4.1 µg/l				
	Boron, Dissolved		7300 µg/l				
	Cadmium, Dissolved		<0.7 µg/l				
	Calcium, Dissolved		390 mg/l				
	Chromium, Dissolved		<5.1 µg/l				
	Copper, Dissolved		<18 µg/l				
	Magnesium, Dissolved		578 mg/l				
	Manganese, Dissolved		160 µg/l				
	Molybdenum, Dissolved		1000 µg/l				
	Nickel, Dissolved		<10 µg/l				
	Selenium Dissolved		<6 µg/l				
	Vanadium, Dissolved		3.4 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO ₃		119 mg/l				
	Conductivity at 20C		25500 uS/cm				
	Potassium, Dissolved		233 mg/l				
	Sodium, Dissolved		5510 mg/l				
	Sulphate, Dissolved as SO ₄		1580 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		9090 mg/l				
	Fluoride		0.6 mg/l				
	Ammoniacal Nitrogen as N		0.14 mg/l				
	Carbon, Organic : Total as C :- {TOC}		7.9 mg/l				
	pH		8.8 pH Units				

[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.

[6] The emission limit values for all substances is expressed as a maximum individual value, unless otherwise stated.

Signed 

Date 07/09/2022

(authorised to sign as representative of the Operator)