

Reporting of Emission to Surface Water for the period from 1st July 2020 to 31st December 2020.

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		82.0 µg/l		18/08/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		5.1 µg/l				
	Arsenic Dissolved		17.0 µg/l				
	Boron, Dissolved		13000 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		1200 mg/l				
	Chromium, Dissolved		1.0 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		78 mg/l				
	Manganese, Dissolved		470 µg/l				
	Molybdenum, Dissolved		4100 µg/l				
	Nickel, Dissolved		1.3 µg/l				
	Selenium Dissolved		28.0 µg/l				
	Vanadium, Dissolved		25.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		85 mg/l				
	Conductivity at 20C		17200 µS/cm				
	Potassium, Dissolved		252 mg/l				
	Sodium, Dissolved		3310 mg/l				
	Sulphate, Dissolved as SO4		1580 mg/l				
	Nitrogen : Total Oxidised as N		4.6 mg/l				
Chloride		5260 mg/l					
Fluoride		0.1 mg/l					
Ammoniacal Nitrogen as N		0.43 mg/l					
Carbon, Organic : Total as C :- {TOC}		5.2 mg/l					
pH			7.1 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S1 (Group Five Spring)	Aluminium, Dissolved		27.0 µg/l		13/11/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		8.0 µg/l				
	Arsenic Dissolved		24.0 µg/l				
	Boron, Dissolved		10000 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		990 mg/l				
	Chromium, Dissolved		0.6 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		64 mg/l				
	Manganese, Dissolved		490 µg/l				
	Molybdenum, Dissolved		4400 µg/l				
	Nickel, Dissolved		1.1 µg/l				
	Selenium Dissolved		34.0 µg/l				
	Vanadium, Dissolved		28.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		143 mg/l				
	Conductivity at 20C		13000 uS/cm				
	Potassium, Dissolved		189 mg/l				
	Sodium, Dissolved		2620 mg/l				
	Sulphate, Dissolved as SO4		1250 mg/l				
Nitrogen : Total Oxidised as N		10.1 mg/l					
Chloride		4150 mg/l					
Fluoride		<0.1 mg/l					
Ammoniacal Nitrogen as N		8.67 mg/l					
Carbon, Organic : Total as C :- {TOC}		5.8 mg/l					
pH		7.5 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		210.0 µg/l		18/08/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		2.0 µg/l				
	Boron, Dissolved		4300 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		290 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		4.7 µg/l				
	Magnesium, Dissolved		27 mg/l				
	Manganese, Dissolved		290 µg/l				
	Molybdenum, Dissolved		860 µg/l				
	Nickel, Dissolved		2.2 µg/l				
	Selenium Dissolved		2.5 µg/l				
	Vanadium, Dissolved		2.6 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		254 mg/l				
	Conductivity at 20C		2320 uS/cm				
	Potassium, Dissolved		31 mg/l				
	Sodium, Dissolved		305 mg/l				
	Sulphate, Dissolved as SO4		461 mg/l				
Nitrogen : Total Oxidised as N		1.1 mg/l					
Chloride		435 mg/l					
Fluoride		0.2 mg/l					
Ammoniacal Nitrogen as N		<0.06 mg/l					
Carbon, Organic : Total as C :- {TOC}		2.2 mg/l					
pH		8.2 pH Units					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Eastern Perimeter Drain	Aluminium, Dissolved		<7.5 µg/l		13/11/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		0.7 µg/l				
	Boron, Dissolved		2500 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		94 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		16 mg/l				
	Manganese, Dissolved		27 µg/l				
	Molybdenum, Dissolved		420 µg/l				
	Nickel, Dissolved		<1.0 µg/l				
	Selenium Dissolved		4.5 µg/l				
	Vanadium, Dissolved		1.1 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		270 mg/l				
	Conductivity at 20C		1400 uS/cm				
	Potassium, Dissolved		19 mg/l				
	Sodium, Dissolved		118 mg/l				
	Sulphate, Dissolved as SO4		280 mg/l				
Nitrogen : Total Oxidised as N		1.4 mg/l					
Chloride		190 mg/l					
Fluoride		0.2 mg/l					
Ammoniacal Nitrogen as N		<0.06 mg/l					
Carbon, Organic : Total as C :- {TOC}		2.4 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		75.0 µg/l		18/08/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		0.8 µg/l				
	Boron, Dissolved		240 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		130 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		60 mg/l				
	Manganese, Dissolved		15 µg/l				
	Molybdenum, Dissolved		25 µg/l				
	Nickel, Dissolved		<1.0 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		274 mg/l				
	Conductivity at 20C		2320 uS/cm				
	Potassium, Dissolved		17 mg/l				
	Sodium, Dissolved		378 mg/l				
	Sulphate, Dissolved as SO4		117 mg/l				
Nitrogen : Total Oxidised as N		3.6 mg/l					
Chloride		573 mg/l					
Fluoride		0.2 mg/l					
Ammoniacal Nitrogen as N		<0.06 mg/l					
Carbon, Organic : Total as C :- {TOC}		2.2 mg/l					
pH		8.2 pH Units					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
S3 (River Thaw)	Aluminium, Dissolved		260.0 µg/l		13/11/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		0.7 µg/l				
	Boron, Dissolved		60 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		110 mg/l				
	Chromium, Dissolved		0.7 µg/l				
	Copper, Dissolved		2.3 µg/l				
	Magnesium, Dissolved		15 mg/l				
	Manganese, Dissolved		24 µg/l				
	Molybdenum, Dissolved		9 µg/l				
	Nickel, Dissolved		1.3 µg/l				
	Selenium Dissolved		<0.6 µg/l				
	Vanadium, Dissolved		0.8 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		273 mg/l				
	Conductivity at 20C		736 uS/cm				
	Potassium, Dissolved		4 mg/l				
	Sodium, Dissolved		53 mg/l				
	Sulphate, Dissolved as SO4		26 mg/l				
Nitrogen : Total Oxidised as N		2.8 mg/l					
Chloride		86 mg/l					
Fluoride		0.2 mg/l					
Ammoniacal Nitrogen as N		<0.06 mg/l					
Carbon, Organic : Total as C :- {TOC}		3.1 mg/l					
pH		8.2 pH Units					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
Brackish Lagoon	Aluminium, Dissolved		37.0 µg/l		18/08/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		4.1 µg/l				
	Boron, Dissolved		3100 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		220 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		332 mg/l				
	Manganese, Dissolved		69 µg/l				
	Molybdenum, Dissolved		460 µg/l				
	Nickel, Dissolved		<1.0 µg/l				
	Selenium Dissolved		<0.6 µg/l				
	Vanadium, Dissolved		1.6 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		150 mg/l				
	Conductivity at 20C		14300 uS/cm				
	Potassium, Dissolved		123 mg/l				
	Sodium, Dissolved		2890 mg/l				
	Sulphate, Dissolved as SO4		778 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
Chloride		4760 mg/l					
Fluoride		0.4 mg/l					
Ammoniacal Nitrogen as N		0.25 mg/l					
Carbon, Organic : Total as C :- {TOC}		3.7 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]
Brackish Lagoon	Aluminium, Dissolved		<7.5 µg/l		13/11/2020	Sampling Station / Testing ALS	
	Antimony, Dissolved		<1.6 µg/l				
	Arsenic Dissolved		2.1 µg/l				
	Boron, Dissolved		3700 µg/l				
	Cadmium, Dissolved		<0.07 µg/l				
	Calcium, Dissolved		230 mg/l				
	Chromium, Dissolved		<0.51 µg/l				
	Copper, Dissolved		<1.8 µg/l				
	Magnesium, Dissolved		389 mg/l				
	Manganese, Dissolved		18 µg/l				
	Molybdenum, Dissolved		480 µg/l				
	Nickel, Dissolved		<1.0 µg/l				
	Selenium Dissolved		<0.6 µg/l				
	Vanadium, Dissolved		1.4 µg/l				
	Mercury, Dissolved		0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		198 mg/l				
	Conductivity at 20C		16200 uS/cm				
	Potassium, Dissolved		151 mg/l				
	Sodium, Dissolved		3380 mg/l				
	Sulphate, Dissolved as SO4		960 mg/l				
Nitrogen : Total Oxidised as N		<0.7 mg/l					
Chloride		5630 mg/l					
Fluoride		0.4 mg/l					
Ammoniacal Nitrogen as N		0.29 mg/l					
Carbon, Organic : Total as C :- {TOC}		4.0 mg/l					
pH		8.3 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 05/03/2021 (authorised to sign as representative of the Operator)