Reporting of Emission to Groundwater for the period from 1st January to 30th June 2022.

Operator : RWE Generation UK plc **Form:** Groundwater1

Location: Aberthaw Power Station

Permit/Variation Number: RP3133LD

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH12	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		<2.0 µg/l				
	Boron, Dissolved		<560 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		71 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		29 mg/l				
	Manganese, Dissolved		16.0 µg/l				
	Molybdenum, Dissolved		<25.0 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Zinc, Dissolved		<50 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		380 mg/l				
	Conductivity at 20C		1190 uS/cm				
	Potassium, Dissolved		5.5 mg/l				
	Sodium, Dissolved		190 mg/l				
	Sulphate, Dissolved as SO4		90 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		180 mg/l				
	Fluoride		0.30 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.5 mg/l				
	pH		7.60 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH12	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		0.5 µg/l				
	Boron, Dissolved		375 µg/l				
	Cadmium, Dissolved		<0.02 µg/l				
	Calcium, Dissolved		134 mg/l				
	Chromium, Dissolved		<0.20 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		62 mg/l				
	Manganese, Dissolved		105.0 µg/l				
	Molybdenum, Dissolved		3.3 µg/l				
	Nickel, Dissolved		1.3 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		0.7 µg/l				
	Zinc, Dissolved		<5.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		329 mg/l				
	Conductivity at 20C		2800 uS/cm				
	Potassium, Dissolved		15.0 mg/l				
	Sodium, Dissolved		440 mg/l				
	Sulphate, Dissolved as SO4		190 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		706 mg/l				
	Fluoride		0.40 mg/l				
	Ammoniacal Nitrogen as N		0.27 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.5 mg/l				
	pH		7.60 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH13	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		<2.0 µg/l				
	Boron, Dissolved		<560 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		94 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		42 mg/l				
	Manganese, Dissolved		32.0 µg/l				
	Molybdenum, Dissolved		<25.0 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Zinc, Dissolved		<50 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		349 mg/l				
	Conductivity at 20C		2020 uS/cm				
	Potassium, Dissolved		12.0 mg/l				
	Sodium, Dissolved		330 mg/l				
	Sulphate, Dissolved as SO4		166 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		451 mg/l				
	Fluoride		0.40 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.6 mg/l				
	pH		7.60 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
BH13	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		0.5 µg/l				
	Boron, Dissolved		206 µg/l				
	Cadmium, Dissolved		<0.02 µg/l				
	Calcium, Dissolved		77 mg/l				
	Chromium, Dissolved		<0.20 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		30 mg/l				
	Manganese, Dissolved		47.0 µg/l				
	Molybdenum, Dissolved		<2.50 µg/l				
	Nickel, Dissolved		<1.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		0.4 µg/l				
	Zinc, Dissolved		<5.0 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		370 mg/l				
	Conductivity at 20C		1210 uS/cm				
	Potassium, Dissolved		5.8 mg/l				
	Sodium, Dissolved		180 mg/l				
	Sulphate, Dissolved as SO4		97 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		191 mg/l				
	Fluoride		0.30 mg/l				
	Ammoniacal Nitrogen as N		0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.5 mg/l				
	pH		7.70 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 ……. S. Camps …… Date 07/09/2022 (authorised to sign as representative of the Operator)