Reporting of Emission to Groundwater for the period from ...1st July 2018....to...31st December 2018.

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		<10 µg/l		31/08/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		280 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		107 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.58 µg/l				
	Magnesium, Dissolved		35 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		4 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		287 mg/l				
	Conductivity at 20C		1960 uS/cm				
	Potassium, Dissolved		14 mg/l				
	Sodium, Dissolved		283 mg/l				
	Sulphate, Dissolved as SO4		128 mg/l				
	Nitrogen : Total Oxidised as N		1.68 mg/l				
	Chloride		424 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.4 mg/l				
	pH		7.46 pH Units				

BH12	Aluminium, Dissolved		<10 µg/l		13/11/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		305 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		127 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		2.78 µg/l				
	Magnesium, Dissolved		38 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		5 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		296 mg/l				
	Conductivity at 20C		1970 uS/cm				
	Potassium, Dissolved		14 mg/l				
	Sodium, Dissolved		265 mg/l				
	Sulphate, Dissolved as SO4		141 mg/l				
	Nitrogen : Total Oxidised as N		1.42 mg/l				
	Chloride		434 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- (TOC)		4.5 mg/l				
	pH		7.41 pH Units				

BH13	Aluminium, Dissolved		<10 µg/l		31/08/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		280 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		107 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.58 µg/l				
	Magnesium, Dissolved		35 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		4 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		287 mg/l				
	Conductivity at 20C		1960 uS/cm				
	Potassium, Dissolved		14 mg/l				
	Sodium, Dissolved		283 mg/l				
	Sulphate, Dissolved as SO4		128 mg/l				
	Nitrogen : Total Oxidised as N		1.68 mg/l				
	Chloride		424 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.4 mg/l				
	pH		7.46 pH Units				

BH13	Aluminium, Dissolved		45 µg/l		14/11/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		175 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		91 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		33 mg/l				
	Manganese, Dissolved		12 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		1.7 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		<5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		293 mg/l				
	Conductivity at 20C		1500 uS/cm				
	Potassium, Dissolved		8 mg/l				
	Sodium, Dissolved		199 mg/l				
	Sulphate, Dissolved as SO4		111 mg/l				
	Nitrogen : Total Oxidised as N		0.69 mg/l				
	Chloride		285 mg/l				
	Fluoride		0.24 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.2 mg/l				
	pH		7.51 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 R T. Powell Date 21/01/2019 (authorised to sign as representative of the Operator)