Reporting of Emission to Groundwater for the period from ...1st January 2018....to...30th June 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		01/03/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		137 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		84 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		24 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		<5 µg/l				
	Mercury, Dissolved		0 µg/l				
	Alkalinity to pH 4.5 as CaCO3		308 mg/l				
	Conductivity at 20C		1210 uS/cm				
	Potassium, Dissolved		7 mg/l				
	Sodium, Dissolved		157 mg/l				
	Sulphate, Dissolved as SO4		71 mg/l				
	Nitrogen : Total Oxidised as N		1.65 mg/l				
	Chloride		194 mg/l				
	Fluoride		0.18 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.8 mg/l				
	pH		7.47 pH Units				

BH12	Aluminium, Dissolved		<10 µg/l		18/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		196 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		103 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.21 µg/l				
	Magnesium, Dissolved		22 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		4 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		321 mg/l				
	Conductivity at 20C		1240 uS/cm				
	Potassium, Dissolved		9 mg/l				
	Sodium, Dissolved		137 mg/l				
	Sulphate, Dissolved as SO4		78 mg/l				
	Nitrogen : Total Oxidised as N		1.56 mg/l				
	Chloride		198 mg/l				
	Fluoride		0.18 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.0 mg/l				
	pH		7.56 pH Units				

BH13	Aluminium, Dissolved		<10 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		181 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		110 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		40 mg/l				
	Manganese, Dissolved		96 µg/l				
	Molybdenum, Dissolved		4 µg/l				
	Nickel, Dissolved		1.1 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		291 mg/l				
	Conductivity at 20C		1810 uS/cm				
	Potassium, Dissolved		10 mg/l				
	Sodium, Dissolved		239 mg/l				
	Sulphate, Dissolved as SO4		116 mg/l				
	Nitrogen : Total Oxidised as N		0.26 mg/l				
	Chloride		394 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.6 mg/l				
	pH		7.38 pH Units				

BH13	Aluminium, Dissolved		<10 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		196 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		110 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		21 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		<5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		318 mg/l				
	Conductivity at 20C		1120 uS/cm				
	Potassium, Dissolved		9 mg/l				
	Sodium, Dissolved		115 mg/l				
	Sulphate, Dissolved as SO4		71 mg/l				
	Nitrogen : Total Oxidised as N		2.26 mg/l				
	Chloride		160 mg/l				
	Fluoride		0.14 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.8 mg/l				
	pH		7.52 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.

R. T. Powell

Signed …… Date 25/07/2018 (authorised to sign as representative of the Operator)