Reporting of Emission to Groundwater for the period from ...1st January 2015..to...30th June 2015...

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		18/02/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		236 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		102 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.52 µg/l				
	Magnesium, Dissolved		18.7 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		10.2 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6.92 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		317 mg/l				
	Conductivity at 20C		1050 uS/cm				
	Potassium, Dissolved		9.07 mg/l				
	Sodium, Dissolved		105 mg/l				
	Sulphate, Dissolved as SO4		74.8 mg/l				
	Nitrogen : Total Oxidised as N		2.3 mg/l				
	Chloride		135 mg/l				
	Fluoride		0.183 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.3 mg/l				
	pH		7.49 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		<10 µg/l		18/05/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		263 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		102 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.76 µg/l				
	Magnesium, Dissolved		23.8 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		5.01 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Zinc, Dissolved		6.89 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		283 mg/l				
	Conductivity at 20C		1360 uS/cm				
	Potassium, Dissolved		10.1 mg/l				
	Sodium, Dissolved		164 mg/l				
	Sulphate, Dissolved as SO4		90.1 mg/l				
	Nitrogen : Total Oxidised as N		1.58 mg/l				
	Chloride		242 mg/l				
	Fluoride		0.177 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.7 mg/l				
	pH		7.47 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		<40 µg/l		18/02/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		83.2 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.237 µg/l				
	Magnesium, Dissolved		25 mg/l				
	Manganese, Dissolved		113 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		1.01 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Zinc, Dissolved		0.771 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		800 mg/l				
	Conductivity at 20C		1460 uS/cm				
	Potassium, Dissolved		8.4 mg/l				
	Sodium, Dissolved		231 mg/l				
	Sulphate, Dissolved as SO4		85.2 mg/l				
	Nitrogen : Total Oxidised as N		1.74 mg/l				
	Chloride		267 mg/l				
	Fluoride		0.351 mg/l				
	Ammoniacal Nitrogen as N		0.0171 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.9 mg/l				
	pH		7.54 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		<40 µg/l		18/05/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		91.2 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.211 µg/l				
	Magnesium, Dissolved		30.9 mg/l				
	Manganese, Dissolved		23.9 µg/l				
	Molybdenum, Dissolved		38.6 µg/l				
	Nickel, Dissolved		1.05 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Zinc, Dissolved		1.1 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		537 mg/l				
	Conductivity at 20C		1660 uS/cm				
	Potassium, Dissolved		8.74 mg/l				
	Sodium, Dissolved		244 mg/l				
	Sulphate, Dissolved as SO4		117 mg/l				
	Nitrogen : Total Oxidised as N		0.71 mg/l				
	Chloride		328 mg/l				
	Fluoride		0.193 mg/l				
	Ammoniacal Nitrogen as N		0.012 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.8 mg/l				
	pH		7.46 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 28/07/15

(authorised to sign as representative of the Operator)