

Reporting of Emission to Groundwater for the period from ...1st July 2015..to....31st December 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⁾			
BH12	Aluminium, Dissolved		<10 µg/l	12/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l			
	Arsenic Dissolved		<1 µg/l			
	Boron, Dissolved		300 µg/l			
	Cadmium, Dissolved		<0.1 µg/l			
	Calcium, Dissolved		145 mg/l			
	Chromium, Dissolved		<0.5 µg/l			
	Copper, Dissolved		1.22 µg/l			
	Magnesium, Dissolved		45.2 mg/l			
	Manganese, Dissolved		<10 µg/l			
	Molybdenum, Dissolved		8.38 µg/l			
	Nickel, Dissolved		<1 µg/l			
	Selenium Dissolved		<1 µg/l			
	Vanadium, Dissolved		<2 µg/l			
	Zinc, Dissolved		9.65 µg/l			
	Mercury, Dissolved		<0.01 µg/l			
	Alkalinity to pH 4.5 as CaCO3		281 mg/l			
	Conductivity at 20C		2480 uS/cm			
	Potassium, Dissolved		16.8 mg/l			
	Sodium, Dissolved		342 mg/l			
	Sulphate, Dissolved as SO4		133 mg/l			
	Nitrogen : Total Oxidised as N		1.9 mg/l			
	Chloride		617 mg/l			
	Fluoride		0.156 mg/l			
	Ammoniacal Nitrogen as N		0.03 mg/l			
	Carbon, Organic : Total as C :- {TOC}		1.9 mg/l			
	pH		7.25 pH Units			

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾		
BH12	Aluminium, Dissolved		<10 µg/l	02/12/2015	Sampling Amec/Testing EA NLS
	Antimony, Dissolved		<1 µg/l		
	Arsenic Dissolved		<1 µg/l		
	Boron, Dissolved		277 µg/l		
	Cadmium, Dissolved		<0.1 µg/l		
	Calcium, Dissolved		97.7 mg/l		
	Chromium, Dissolved		0.524 µg/l		
	Copper, Dissolved		1.69 µg/l		
	Magnesium, Dissolved		23 mg/l		
	Manganese, Dissolved		<10 µg/l		
	Molybdenum, Dissolved		6.11 µg/l		
	Nickel, Dissolved		<1 µg/l		
	Selenium Dissolved		<1 µg/l		
	Vanadium, Dissolved		<2 µg/l		
	Zinc, Dissolved		12.7 µg/l		
	Mercury, Dissolved		<0.01 µg/l		
	Alkalinity to pH 4.5 as CaCO3		302 mg/l		
	Conductivity at 20C		1300 uS/cm		
	Potassium, Dissolved		11.4 mg/l		
	Sodium, Dissolved		163 mg/l		
	Sulphate, Dissolved as SO4		87.2 mg/l		
	Nitrogen : Total Oxidised as N		1.74 mg/l		
	Chloride		228 mg/l		
	Fluoride		0.233 mg/l		
	Ammoniacal Nitrogen as N		0.03 mg/l		
	Carbon, Organic : Total as C :- {TOC}		2.4 mg/l		
	pH		7.53 pH Units		

Emission point	Substance/ Parameter	Emission Limit Value	Result ⁽¹⁾			
BH13	Aluminium, Dissolved		125 µg/l	12/08/2015	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		105 mg/l			
	Chromium, Dissolved		<0.5 µg/l			
	Copper, Dissolved		0.777 µg/l			
	Magnesium, Dissolved		32.2 mg/l			
	Manganese, Dissolved		<20 µg/l			
	Molybdenum, Dissolved		<30 µg/l			
	Nickel, Dissolved		1.31 µg/l			
	Selenium Dissolved		<1 µg/l			
	Vanadium, Dissolved		<20 µg/l			
	Zinc, Dissolved		7.53 µg/l			
	Mercury, Dissolved		<0.01 µg/l			
	Alkalinity to pH 4.5 as CaCO3		310 mg/l			
	Conductivity at 20C		1720 uS/cm			
	Potassium, Dissolved		9.76 mg/l			
	Sodium, Dissolved		231 mg/l			
	Sulphate, Dissolved as SO4		123 mg/l			
	Nitrogen : Total Oxidised as N		0.21 mg/l			
	Chloride		389 mg/l			
	Fluoride		0.185 mg/l			
	Ammoniacal Nitrogen as N		0.016 mg/l			
	Carbon, Organic : Total as C :- {TOC}		2.5 mg/l			
	pH		7.32 pH Units			

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]		
BH13	Aluminium, Dissolved		<10 µg/l	02/12/2015	Sampling Artec/Testing EA NLS
	Antimony, Dissolved		<1 µg/l		
	Arsenic Dissolved		<1 µg/l		
	Boron, Dissolved		211 µg/l		
	Cadmium, Dissolved		<0.1 µg/l		
	Calcium, Dissolved		85.6 mg/l		
	Chromium, Dissolved		<0.5 µg/l		
	Copper, Dissolved		<1 µg/l		
	Magnesium, Dissolved		25.1 mg/l		
	Manganese, Dissolved		13.1 µg/l		
	Molybdenum, Dissolved		3.83 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 CaCO ₃		304 mg/l		
	Conductivity at 20C		1550 uS/cm		
	Potassium, Dissolved		9.16 mg/l		
	Sodium, Dissolved		220 mg/l		
	Sulphate, Dissolved as SO ₄		83 mg/l		
	Nitrogen : Total Oxidised as N		1.68 mg/l		
	Chloride		313 mg/l		
	Fluoride		0.196 mg/l		
	Ammoniacal Nitrogen as N		0.03 mg/l		
	Carbon, Organic : Total as C :- {TOC}		1.5 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 A. Sanjhar Date 14/01/2016

(authorised to sign as representative of the Operator)