

Reporting of Emission to Groundwater for the period from ...1st January 2016..to...30th June 2016...

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		18/02/2016	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		184 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		99 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.62 µg/l				
	Magnesium, Dissolved		18 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		8 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		290 mg/l				
	Conductivity at 20C		948 uS/cm				
	Potassium, Dissolved		8 mg/l				
	Sodium, Dissolved		95 mg/l				
	Sulphate, Dissolved as SO4		55 mg/l				
	Nitrogen : Total Oxidised as N		1.68 mg/l				
	Chloride		128 mg/l				
Fluoride		0.19 mg/l					
Ammoniacal Nitrogen as N		<0.03 mg/l					
Carbon, Organic : Total as C :- {TOC}		3 mg/l					
pH		7.46 pH Units					

BH12	Aluminium, Dissolved		<10 µg/l		04/05/2016	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		189 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		105 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		20 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		299 mg/l				
	Conductivity at 20C		1180 uS/cm				
	Potassium, Dissolved		9 mg/l				
	Sodium, Dissolved		134 mg/l				
	Sulphate, Dissolved as SO4		69 mg/l				
	Nitrogen : Total Oxidised as N		1.90 mg/l				
	Chloride		195 mg/l				
Fluoride		0.16 mg/l					
Ammoniacal Nitrogen as N		0.03 mg/l					
Carbon, Organic : Total as C :- {TOC}		2 mg/l					
pH		7.34 pH Units					

BH13	Aluminium, Dissolved		<10 µg/l		17/02/2016	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		144 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		75 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.12 µg/l				
	Magnesium, Dissolved		19 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		14 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		308 mg/l				
	Conductivity at 20C		1150 uS/cm				
	Potassium, Dissolved		8 mg/l				
	Sodium, Dissolved		163 mg/l				
	Sulphate, Dissolved as SO4		60 mg/l				
	Nitrogen : Total Oxidised as N		1.59 mg/l				
	Chloride		187 mg/l				
Fluoride		0.18 mg/l					
Ammoniacal Nitrogen as N		<0.03 mg/l					
Carbon, Organic : Total as C :- {TOC}		2 mg/l					
pH		7.53 pH Units					

BH13	Aluminium, Dissolved	<10 µg/l	
	Antimony, Dissolved	<1 µg/l	
	Arsenic Dissolved	<1 µg/l	
	Boron, Dissolved	178 µg/l	
	Cadmium, Dissolved	<0.1 µg/l	
	Calcium, Dissolved	87 mg/l	
	Chromium, Dissolved	<0.5 µg/l	
	Copper, Dissolved	<1 µg/l	
	Magnesium, Dissolved	25 mg/l	
	Manganese, Dissolved	30 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	<0.01 µg/l	
	Alkalinity to pH 4.5 as CaCO3	307 mg/l	
	Conductivity at 20C	1370 uS/cm	
	Potassium, Dissolved	8 mg/l	
	Sodium, Dissolved	190 mg/l	
Sulphate, Dissolved as SO4	85 mg/l		
Nitrogen : Total Oxidised as N	0.89 mg/l		
Chloride	241 mg/l		
Fluoride	0.19 mg/l		
Ammoniacal Nitrogen as N	0.03 mg/l		
Carbon, Organic : Total as C :- {TOC}	2 mg/l		
pH	7.38 pH Units		

04/05/2016

Sampling Amec/Testing
EA NLS

- [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. Javsho Date 27/07/2016

(authorised to sign as representative of the Operator)