

Reporting of Emission to Surface Water for the period from 1st January 2020 to 30th June 2020

Operator : RWE Generation UK plc

Form: Water1

Location: Aberthaw Ash Disposal Site

Permit/Variation Number: DP3432SW

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
S1 (Group Five Spring)	Aluminium, Dissolved		<40 µg/l		18/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		23.00 µg/l				
	Boron, Dissolved		8100 µg/l				
	Cadmium, Dissolved		0.340 µg/l				
	Calcium, Dissolved		700 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.200 µg/l				
	Magnesium, Dissolved		52.0 mg/l				
	Manganese, Dissolved		420.0 µg/l				
	Molybdenum, Dissolved		3400 µg/l				
	Nickel, Dissolved		0.48 µg/l				
	Selenium Dissolved		39.00 µg/l				
	Vanadium, Dissolved		44 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		135 mg/l				
	Conductivity at 20C		11000 µS/cm				
	Potassium, Dissolved		140 mg/l				
	Sodium, Dissolved		1900 mg/l				
	Sulphate, Dissolved as SO4		1100 mg/l				
	Nitrogen : Total Oxidised as N		14.00 mg/l				
	Chloride		3600 mg/l				
Fluoride		0.100 mg/l					
Ammoniacal Nitrogen as N		8.000 mg/l					
Carbon, Organic : Total as C :- {TOC}		3.20 mg/l					
pH		7.50 pH Units					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
S1 (Group Five Spring)	Aluminium, Dissolved	Unable to collect samples or send off for analysis due to Covid-19	<40 µg/l		Unable to collect samples or send off for analysis due to Covid-19	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		24.00 µg/l				
	Boron, Dissolved		9300 µg/l				
	Cadmium, Dissolved		0.45 µg/l				
	Calcium, Dissolved		790 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.390 µg/l				
	Magnesium, Dissolved		61 mg/l				
	Manganese, Dissolved		660.0 µg/l				
	Molybdenum, Dissolved		3600 µg/l				
	Nickel, Dissolved		0.51 µg/l				
	Selenium Dissolved		37 µg/l				
	Vanadium, Dissolved		28 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		180.00 mg/l				
	Conductivity at 20C		13000 uS/cm				
	Potassium, Dissolved		170 mg/l				
	Sodium, Dissolved		2300 mg/l				
	Sulphate, Dissolved as SO4		1200 mg/l				
	Nitrogen : Total Oxidised as N		11.00 mg/l				
Chloride	4000 mg/l						
Fluoride	0.07 mg/l						
Ammoniacal Nitrogen as N	9.800 mg/l						
Carbon, Organic : Total as C :- {TOC}	4.70 mg/l						
pH	7.40 pH Units						

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
Eastern Perimeter Drain	Aluminium, Dissolved		78 µg/l		18/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		1.30 µg/l				
	Boron, Dissolved		1400 µg/l				
	Cadmium, Dissolved		0.040 µg/l				
	Calcium, Dissolved		150 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.850 µg/l				
	Magnesium, Dissolved		12.0 mg/l				
	Manganese, Dissolved		150.0 µg/l				
	Molybdenum, Dissolved		220 µg/l				
	Nickel, Dissolved		0.97 µg/l				
	Selenium Dissolved		3.10 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		288 mg/l				
	Conductivity at 20C		1100 uS/cm				
	Potassium, Dissolved		14 mg/l				
	Sodium, Dissolved		94 mg/l				
	Sulphate, Dissolved as SO4		160 mg/l				
	Nitrogen : Total Oxidised as N		3.00 mg/l				
	Chloride		130 mg/l				
	Fluoride		0.140 mg/l				
Ammoniacal Nitrogen as N		0.039 mg/l					
Carbon, Organic : Total as C :- {TOC}		5.40 mg/l					
pH			7.90 pH Units				

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
Eastern Perimeter Drain	Aluminium, Dissolved	Unable to collect samples or send off for analysis due to Covid-19	170 µg/l		Unable to collect samples or send off for analysis due to Covid-19	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		1.90 µg/l				
	Boron, Dissolved		1800 µg/l				
	Cadmium, Dissolved		0.054 µg/l				
	Calcium, Dissolved		170 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.200 µg/l				
	Magnesium, Dissolved		15 mg/l				
	Manganese, Dissolved		300.0 µg/l				
	Molybdenum, Dissolved		280 µg/l				
	Nickel, Dissolved		1.10 µg/l				
	Selenium Dissolved		4 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		295.00 mg/l				
	Conductivity at 20C		1300 uS/cm				
	Potassium, Dissolved		17 mg/l				
	Sodium, Dissolved		110 mg/l				
	Sulphate, Dissolved as SO4		210 mg/l				
Nitrogen : Total Oxidised as N	3.10 mg/l						
Chloride	160 mg/l						
Fluoride	0.11 mg/l						
Ammoniacal Nitrogen as N	0.04 mg/l						
Carbon, Organic : Total as C :- {TOC}	2.40 mg/l						
pH	8.00 pH Units						

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
S3 (River Thaw)	Aluminium, Dissolved		290 µg/l		18/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		0.080 µg/l				
	Calcium, Dissolved		100 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.600 µg/l				
	Magnesium, Dissolved		9.6 mg/l				
	Manganese, Dissolved		23.0 µg/l				
	Molybdenum, Dissolved		75 µg/l				
	Nickel, Dissolved		1.00 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		255 mg/l				
	Conductivity at 20C		570 uS/cm				
	Potassium, Dissolved		3 mg/l				
	Sodium, Dissolved		22 mg/l				
	Sulphate, Dissolved as SO4		19 mg/l				
	Nitrogen : Total Oxidised as N		3.40 mg/l				
	Chloride		34 mg/l				
	Fluoride		0.096 mg/l				
Ammoniacal Nitrogen as N		0.018 mg/l					
Carbon, Organic : Total as C :- {TOC}		2.70 mg/l					
pH		8.10 pH Units					

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S3 (River Thaw)	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Alkalinity to pH 4.5 as CaCO3						
	Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved as SO4						
	Nitrogen : Total Oxidised as N						
Chloride							
Fluoride							
Ammoniacal Nitrogen as N							
Carbon, Organic : Total as C :- {TOC}							
pH							

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
Brackish Lagoon	Aluminium, Dissolved		<40 µg/l		18/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		1.80 µg/l				
	Boron, Dissolved		2200 µg/l				
	Cadmium, Dissolved		0.041 µg/l				
	Calcium, Dissolved		200 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.800 µg/l				
	Magnesium, Dissolved		230.0 mg/l				
	Manganese, Dissolved		31.0 µg/l				
	Molybdenum, Dissolved		340 µg/l				
	Nickel, Dissolved		0.40 µg/l				
	Selenium Dissolved		2.00 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		230 mg/l				
	Conductivity at 20C		11000 uS/cm				
	Potassium, Dissolved		88 mg/l				
	Sodium, Dissolved		1900 mg/l				
	Sulphate, Dissolved as SO4		600 mg/l				
	Nitrogen : Total Oxidised as N		2.20 mg/l				
	Chloride		3500 mg/l				
	Fluoride		0.350 mg/l				
Ammoniacal Nitrogen as N		<0.010 mg/l					
Carbon, Organic : Total as C :- {TOC}		2.50 mg/l					
pH		8.30 pH Units					

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
Brackish Lagoon	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Alkalinity to pH 4.5 as CaCO3						
	Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved as SO4						
	Nitrogen : Total Oxidised as N						
Chloride							
Fluoride							
Ammoniacal Nitrogen as N							
Carbon, Organic : Total as C :- {TOC}							
pH							

[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.

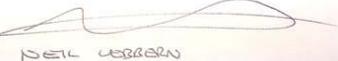
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.

[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 16/07/2020

(authorised to sign as representative of the Operator)

Emission point	Substance/ Parameter	Emission Limit Value	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Accreditation/ Certification <sup>[4]</sup>	Uncertainty <sup>[5]</sup>
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