

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 Quarry Ash Disposal Site

Permit/Variation Number: BP3339BH

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>
SW12	Aluminium, Dissolved		Awaiting µg/l result/Not tested?		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		1.3 µg/l				
	Boron, Dissolved		490 µg/l				
	Cadmium, Dissolved		Awaiting µg/l result/Not tested?				
	Calcium, Dissolved		190 mg/l				
	Chromium, Dissolved		Awaiting µg/l result/Not tested?				
	Copper, Dissolved		Awaiting µg/l result/Not tested?				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		29 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		1100 µg/l				
	Nickel, Dissolved		Awaiting µg/l result/Not tested?				
	Selenium Dissolved		0 µg/l				
	Vanadium, Dissolved		2.9 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		150 mg/l				
Electrical Conductivity at 20C		1800 mS/cm					

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>
	Potassium, Dissolved		24 mg/l				
	Sodium, Dissolved		180 mg/l				
	Sulphate, Dissolved		370 mg/l				
	Total Oxidised Nitrogen		13 mg/l				
	Chloride		300 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen		0.19 mg/l				
	Total Organic Carbon		2 mg/l				
	Nitrate		13 mg/l				
	pH		8.4 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>
SW12	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19	µg/l	Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved			µg/l			
	Arsenic Dissolved			µg/l			
	Boron, Dissolved			µg/l			
	Cadmium, Dissolved			µg/l			
	Calcium, Dissolved			mg/l			
	Chromium, Dissolved			µg/l			
	Copper, Dissolved			µg/l			
	Iron, Dissolved			µg/l			
	Magnesium, Dissolved			mg/l			
	Manganese, Dissolved			µg/l			
	Molybdenum, Dissolved			µg/l			
	Nickel, Dissolved			µg/l			
	Selenium Dissolved			µg/l			
	Vanadium, Dissolved			µg/l			
	Mercury, Dissolved			µg/l			
	Total Alkalinity as CaCO3			mg/l			
	Electrical Conductivity at 20C			mS/cm			
	Potassium, Dissolved			mg/l			
	Sodium, Dissolved			mg/l			
	Sulphate, Dissolved			mg/l			
	Total Oxidised Nitrogen			mg/l			
	Chloride			mg/l			
	Fluoride			mg/l			
Ammoniacal Nitrogen		mg/l					
Total Organic Carbon		mg/l					
Nitrate		mg/l					
pH		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>
Settlement Ponds	Aluminium, Dissolved		16.00 µg/l		14/01/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved	50	2.80 µg/l				
	Boron, Dissolved	2000	870.00 µg/l				
	Cadmium, Dissolved	5	<5 µg/l				
	Calcium, Dissolved		290.00 mg/l				
	Chromium, Dissolved	50	19.00 µg/l				
	Copper, Dissolved		1.50 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		40.00 mg/l				
	Manganese, Dissolved		10.00 µg/l				
	Molybdenum, Dissolved		2500.00 µg/l				
	Nickel, Dissolved		9.80 µg/l				
	Selenium Dissolved		30.00 µg/l				
	Vanadium, Dissolved	60	6.00 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		230.00 mg/l				
	Electrical Conductivity at 20C		3000.00 mS/cm				
	Potassium, Dissolved		39.00 mg/l				
	Sodium, Dissolved		330.00 mg/l				
	Sulphate, Dissolved	400	530.00 mg/l				
	Total Oxidised Nitrogen		3.70 mg/l				
	Chloride		590.00 mg/l				
	Fluoride		0.19 mg/l				
Ammoniacal Nitrogen	0.6	28.00 mg/l					
Total Organic Carbon		2.00 mg/l					
Nitrate		0.00 mg/l					
pH	<9	8.10 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>
Settlement Ponds	Aluminium, Dissolved		19.00 µg/l		19/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved	50	3.30 µg/l				
	Boron, Dissolved	2000	1000.00 µg/l				
	Cadmium, Dissolved	5	<5 µg/l				
	Calcium, Dissolved		310.00 mg/l				
	Chromium, Dissolved	50	22.00 µg/l				
	Copper, Dissolved		2.10 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		42.00 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		3000.00 µg/l				
	Nickel, Dissolved		10.00 µg/l				
	Selenium Dissolved		34.00 µg/l				
	Vanadium, Dissolved	60	6.80 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		200.00 mg/l				
	Electrical Conductivity at 20C		3200.00 mS/cm				
	Potassium, Dissolved		42.00 mg/l				
	Sodium, Dissolved		380.00 mg/l				
	Sulphate, Dissolved	400	600.00 mg/l				
	Total Oxidised Nitrogen		30.00 mg/l				
	Chloride		660.00 mg/l				
Fluoride		0.18 mg/l					
Ammoniacal Nitrogen	0.6	3.40 mg/l					
Total Organic Carbon		2.00 mg/l					
Nitrate		0.00 mg/l					
pH	<9	8.20 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>
Settlement Ponds	Aluminium, Dissolved		No Samples Taken Due Covid-19		March	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved	50					
	Boron, Dissolved	2000					
	Cadmium, Dissolved	5					
	Calcium, Dissolved						
	Chromium, Dissolved	50					
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved	60					
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved	400					
	Total Oxidised Nitrogen						
	Chloride						
Fluoride							
Ammoniacal Nitrogen	0.6						
Total Organic Carbon							
Nitrate							
pH	<9						

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>
Settlement Ponds	Aluminium, Dissolved		No Samples Taken Due Covid-19		April	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved	50					
	Boron, Dissolved	2000					
	Cadmium, Dissolved	5					
	Calcium, Dissolved						
	Chromium, Dissolved	50					
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved	60					
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved	400					
	Total Oxidised Nitrogen						
	Chloride						
Fluoride							
Ammoniacal Nitrogen	0.6						
Total Organic Carbon							
Nitrate							
pH	<9						

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>
Settlement Ponds	Aluminium, Dissolved		µg/l		02/06/2020	Sampling Station/Testing ALS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved	50	4 µg/l				
	Boron, Dissolved	2000	1900 µg/l				
	Cadmium, Dissolved	5	µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved	50	38 µg/l				
	Copper, Dissolved		µg/l				
	Iron, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved	60	10 µg/l				
	Mercury, Dissolved		µg/l				
	Total Alkalinity as CaCO3		mg/l				
	Electrical Conductivity at 20C		mS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved	400	1190 mg/l				
	Total Oxidised Nitrogen		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
Ammoniacal Nitrogen	0.6	6 mg/l					
Total Organic Carbon		mg/l					
Nitrate		mg/l					
pH	<9	8 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>
Settlement Ponds	Aluminium, Dissolved		µg/l		30/06/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved	50	3.5 µg/l				
	Boron, Dissolved	2000	1800 µg/l				
	Cadmium, Dissolved	5	0.02 µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved	50	27 µg/l				
	Copper, Dissolved		µg/l				
	Iron, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved	60	9.9 µg/l				
	Mercury, Dissolved		µg/l				
	Total Alkalinity as CaCO3		mg/l				
	Electrical Conductivity at 20C		mS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved	400	1110 mg/l				
	Total Oxidised Nitrogen		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
Ammoniacal Nitrogen	0.6	4.77 mg/l					
Total Organic Carbon		mg/l					
Nitrate		mg/l					
pH	<9	7.30 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>
DP2	Aluminium, Dissolved		<10 µg/l		14/01/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		1.1 µg/l				
	Boron, Dissolved		490 µg/l				
	Cadmium, Dissolved		<2 µg/l				
	Calcium, Dissolved		260 mg/l				
	Chromium, Dissolved		7.1 µg/l				
	Copper, Dissolved		2.5 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		30 mg/l				
	Manganese, Dissolved		19 µg/l				
	Molybdenum, Dissolved		1400 µg/l				
	Nickel, Dissolved		7.5 µg/l				
	Selenium Dissolved		18 µg/l				
	Vanadium, Dissolved		2.2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		250 mg/l				
	Electrical Conductivity at 20C		2600 mS/cm				
	Potassium, Dissolved		28 mg/l				
	Sodium, Dissolved		290 mg/l				
	Sulphate, Dissolved		340 mg/l				
	Total Oxidised Nitrogen		19 mg/l				
	Chloride		540 mg/l				
	Fluoride		0.16 mg/l				
	Ammoniacal Nitrogen		2.2 mg/l				
Total Organic Carbon		1.7 mg/l					
Nitrate		0 mg/l					
pH		7.30 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>
DP2	Aluminium, Dissolved		13 µg/l		19/02/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		1.9 µg/l				
	Boron, Dissolved		830 µg/l				
	Cadmium, Dissolved		<5 µg/l				
	Calcium, Dissolved		290 mg/l				
	Chromium, Dissolved		13 µg/l				
	Copper, Dissolved		1.7 µg/l				
	Iron, Dissolved		<30 µg/l				
	Magnesium, Dissolved		40 mg/l				
	Manganese, Dissolved		26 µg/l				
	Molybdenum, Dissolved		2300 µg/l				
	Nickel, Dissolved		11 µg/l				
	Selenium Dissolved		28 µg/l				
	Vanadium, Dissolved		3.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Total Alkalinity as CaCO3		220 mg/l				
	Electrical Conductivity at 20C		2900 mS/cm				
	Potassium, Dissolved		35 mg/l				
	Sodium, Dissolved		340 mg/l				
	Sulphate, Dissolved		550 mg/l				
	Total Oxidised Nitrogen		27 mg/l				
	Chloride		550 mg/l				
	Fluoride		0.2 mg/l				
Ammoniacal Nitrogen		3.9 mg/l					
Total Organic Carbon		1.7 mg/l					
Nitrate		0 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>
DP2	Aluminium, Dissolved		No Samples Taken Due Covid-19		March	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved						
	Total Oxidised Nitrogen						
	Chloride						
Fluoride							
Ammoniacal Nitrogen							
Total Organic Carbon							
Nitrate							
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>
DP2	Aluminium, Dissolved		No Samples Taken Due Covid-19		April	Sampling Station/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 20C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved						
	Total Oxidised Nitrogen						
	Chloride						
Fluoride							
Ammoniacal Nitrogen							
Total Organic Carbon							
Nitrate							
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>
DP2	Aluminium, Dissolved		µg/l		02/06/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		3.4 µg/l				
	Boron, Dissolved		2000 µg/l				
	Cadmium, Dissolved		0.02 µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		34 µg/l				
	Copper, Dissolved		µg/l				
	Iron, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		9.1 µg/l				
	Mercury, Dissolved		µg/l				
	Total Alkalinity as CaCO3		mg/l				
	Electrical Conductivity at 20C		mS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved		1200 mg/l				
	Total Oxidised Nitrogen		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
	Ammoniacal Nitrogen		12.6 mg/l				
	Total Organic Carbon		mg/l				
Nitrate		mg/l					
pH		7.80 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>
DP2	Aluminium, Dissolved		µg/l		30/06/2020	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		6.70 µg/l				
	Boron, Dissolved		2700.00 µg/l				
	Cadmium, Dissolved		0.02 µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		64.00 µg/l				
	Copper, Dissolved		µg/l				
	Iron, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		19.00 µg/l				
	Mercury, Dissolved		µg/l				
	Total Alkalinity as CaCO3		mg/l				
	Electrical Conductivity at 20C		mS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved		1410.00 mg/l				
	Total Oxidised Nitrogen		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
Ammoniacal Nitrogen		23.30 mg/l					
Total Organic Carbon		mg/l					
Nitrate		mg/l					
pH		7.30 pH Units					

[1] The result given is the maximum value (or the minimum value in the case of a limit that is fdpressed as a minimum) obtained during the reporting period, fdpressed in the same terms as the

[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

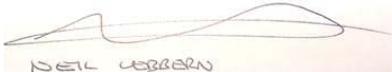
[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples, the percentage of the

[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.

Substance/ Emission point 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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[6] The emission limit values for all substances is fdpressed as a maximum individual value, unless otherwise stated.

Signed  Date 16/07/2020  
 (authorised to sign as representative of the Operator)