RELEASES TO AIR

MONTHLY FUEL USE AND TOTAL RELEASE DATA[a]

Operator: RWE Generation UK plc **Form: ESI/01**

Location: Aberthaw Power Station

Version/date: V.6 Nov 2006

Permit/Variation Number: RP3133LD

Operating Details Year : 2014 Month: November	LCP1[b]	Standby gas turbines[c]	Site month total
Coal (tonnes)	311913.89		311913.89
Coal Sulphur content (%)	0.84		
Solid Biomass (tonnes)	6252.56		6252.56
Solid Biomass Sulphur content (%)	0.01		
Heavy Fuel Oil (tonnes)	1375.42		1375.42
Heavy Fuel Oil Sulphur content (%)	0.69		
Gas Oil (tonnes)		14.81	14.81
Gas Oil Sulphur content (%)		0.05	
Process Fuel Oil (Tonnes)			
Process Fuel Oil Sulphur content (%)			
High Carbon Ash (tonnes)	1780.1		1780.1
High Carbon Ash Sulphur content (%)	0.4		
Liquid Biomass (tonnes)	189.74		189.74
Liquid Biomass Sulphur content (%)	0.27		

Sulphur dioxide (tonnes)	870.38	0.01	870.39
Nitrogen oxides (tonnes)	3039.78	0.04	3039.82
Dust (tonnes)	38.91		38.91

NOTES:

(a) Including start-up & shut-down

(b) LCP = Large Combustion Plant

(c) Auxiliary combustion emissions should be included in the LCP if the auxiliaries share a common windshield with the LCP

Signed on behalf of the Operator by: .....

Date of return: 04 December 2014

RELEASES TO AIR

MONTHLY SO_2, NO_x and Particulate Release Data for LCP1[(a)]

Operator: RWE Generation UK plc **Form: ESI/02**

Location: Aberthaw Power Station

Sira MC120197/00

Permit: RP3133LD **Year 2014** **Month November**

	SO_2 Emissions		NOx Emissions		Particulate Emissions		Cumulative SO2 Release Rates Year to date	Cumulative NOx Release Rates Year to date
Reporting Period	Actual (tonnes)	Cumulative Year to date (tonnes)	Actual (tonnes)	Cumulative Year to date (tonnes)	Actual (tonnes)	Cumulative Year to date (tonnes)	(tonnes/ GWh)	(tonnes/ GWh)
01 (Jan)	607.1	607.1	2,679.9	2,679.9	32.6	32.6	0.7	3.3
02 (Feb)	356.1	963.2	1,555.9	4,235.9	17.9	50.5	0.7	3.2
03 (Mar)	378.5	1,341.7	2,004.7	6,240.6	21.6	72.1	0.7	3.2
04 (Apr)	667.7	2,009.4	2,851.0	9,091.5	40.4	112.5	0.7	3.2
05 (May)	329.4	2,338.8	2,166.0	11,257.5	28.4	140.9	0.7	3.2
06 (Jun)	205.5	2,544.3	741.1	11,998.6	7.4	148.4	0.7	3.2
07 (Jul)	122.3	2,666.6	746.2	12,744.8	9.1	157.5	0.7	3.1
08 (Aug)	99.1	2,765.7	531.6	13,276.5	5.7	163.2	0.6	3.1
09 (Sep)	278.4	3,044.1	1,216.1	14,492.6	17.2	180.4	0.6	3.0
10 (Oct)	417.5	3,461.6	1,431.7	15,924.2	17.1	197.5	0.7	3.0
11 (Nov)	853.9	4,315.5	3,028.3	18,952.6	38.3	235.8	0.7	3.1
12 (Dec)								
Current Allocation[(b)]		15,000		33,000		#N/A	#N/A	#N/A

NOTES:

(a) Excluding start-up and shut-down

(b) Current Allocation refers to the yearly Process B limit/NERP allocation OR the target t/GWh (generated), where applicable as set in Table 4.4 of the permit

Signed on behalf of the Operator by: G Cox

Date of return: 04 December 2014

RELEASES TO AIR

MONTHLY MEAN CONCENTRATIONS AND ANNUAL PERCENTILES[a]

Operator: RWE Generation UK plc **Form:** ESI/03

Location: Aberthaw Power Station **Version:** V 6.Nov 2006

Permit: RP3133LD **Year: 2014** **Month: November**

MCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
Sira MC120197/00

Reporting Period	LCP 1			
	Monthly Mean (mg/m³)[b]			Desulphurisation[c] Efficiency
	SO_2[c]	NO_x[c]	Dust	%
01 (Jan)	170.28	780.84	8.05	>94%
02 (Feb)	168.69	745.14	7.27	>94%
03 (Mar)	138.86	762.41	6.87	>94%
04 (Apr)	169.59	748.00	9.17	>94%
05 (May)	123.08	767.46	8.74	>94%
06 (Jun)	192.24	689.45	6.01	>94%
07 (Jul)	101.26	611.02	6.47	>94%
08 (Aug)	116.98	621.83	5.76	>94%
09 (Sep)	138.85	626.49	7.35	>94%
10 (Oct)	201.44	687.51	7.15	>94%
11 (Nov)	228.77	792.48	8.68	>94%
12 (Dec)				>94%
Monthly Mean ELV	400.0	1100.0	25.0	
48 hour means	97th	95th	97th	
Annual Percentile [c]	303.48	854.28	10.55	
Annual Emission Limit Value [c]	440.0	1210.0	55.0	
Annual Desulphurisation Efficiency (%) [c]				
Operational Hours [d]				

NOTES:
(a) Annual percentiles are submitted with the final return
(b) Reference conditions for mg/m³ are 6% O_2 solid fuels, 3% O_2 for oil and gas, dry, 0°C, 101.325 kPa
(c) Required for Opted-in (ELV) plant only
(d) Required for Opted-out plant only

Signed on behalf of the Operator by: G Lott

Date of return: 04 December 2014

Permit Number: RP3133LD Operator: RWE Generation UK plc

Installation: Aberthaw Power Station Form Number: Process1 / 30/11/07

Reporting of process monitoring for the period from ... 01/11/2014 ...to... 30/11/2014

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A13 (unit 7 absorber inlet)	Particulate Matter (mg/m3) (maximum hourly average value)	-	Continuous	449		01 - 30/11/14	MCERT monitor
A13 (unit 7 absorber inlet)	Particulate Matter (mg/m3) (monthly average value)	-	Continuous	99.2		01 - 30/11/14	MCERT monitor
A14 (unit 8 absorber inlet)	Particulate Matter (mg/m3) (maximum hourly average value)	-	Continuous	193		01 - 30/11/14	MCERT monitor
A14 (unit 8 absorber inlet)	Particulate Matter (mg/m3) (monthly average value)	-	Continuous	55.0		01 - 30/11/14	MCERT monitor
A15 (unit 9 absorber inlet)	Particulate Matter (mg/m3) (maximum hourly average value)	-	Continuous	96		01 - 30/11/14	MCERT monitor
A15 (unit 9 absorber inlet)	Particulate Matter (mg/m3) (monthly average value)	-	Continuous	39.8		01 - 30/11/14	MCERT monitor

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
Windshield A1 (unit 7 flue)	Temperature (degC) (minimum hourly average value)	-	Continuous	50.7		01 - 30/11/14	< +/-1°C
Windshield A1 (unit 7 flue)	Temperature (degC) (monthly average value)	-	Continuous	63.6		01 - 30/11/14	< +/-1°C
Windshield A1 (unit 8 flue)	Temperature (degC) (minimum hourly average value)	-	Continuous	54.3		01 - 30/11/14	< +/-1°C
Windshield A1 (unit 8 flue)	Temperature (degC) (monthly average value)	-	Continuous	66.8		01 - 30/11/14	< +/-1°C
Windshield A1 (unit 9 flue)	Temperature (degC) (minimum hourly average value)	-	Continuous	62.9		01 - 30/11/14	< +/-1°C
Windshield A1 (unit 9 flue)	Temperature (degC) (monthly average value)	-	Continuous	69.9		01 - 30/11/14	< +/-1°C

[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. gas chromatography. To be confirmed upon completion of permit improvement condition reference IC20.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed G Lot Date 16-12-14 (Authorised to sign as representative of Operator)

Reporting of deposited particulate matter for the period from 06/11/14 to 02/12/14

Operator: RWE Generation UK plc **Form:** **Deposition1 /30/11/07**

Location: Aberthaw Power Station Version: V.6 Nov 2006

Permit/Variation Number: RP3133LD

Monitoring Point	Substance / Parameter	Guidance Value ($mg/m^2/day$)	Result [1] ($mg/m^2/day$)	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Font-y-gary	Total deposited particulate matter	80-100	82.2	BS 1747-1:1969 and best practice guidelines	Continuous	-	-
East Aberthaw Sidings	Total deposited particulate matter	80-100	52.1	BS 1747-1:1969 and best practice guidelines	Continuous	-	-
Rail Bend	Total deposited particulate matter	80-100	198.6	BS 1747-1:1969 and best practice guidelines	Continuous	-	-
Quarry North	Total deposited particulate matter	80-100	36.7	BS 1747-1:1969 and best practice guidelines	Continuous	-	-
Quarry South	Total deposited particulate matter	80-100	37.3	BS 1747-1:1969 and best practice guidelines	Continuous	-	-

[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.

Signed ..... Date 16-12-14
(authorised to sign as representative of the Operator)

Reporting of Emissions to Water (other than to Sewer) for the period from ...1st November 2014...to...30th November 2014.

Operator: RWE Generation UK plc **Form:** **Water1 /25/01/2013**

Location: Aberthaw Version: V.8 Jan 2013

Permit/Variation Number: EPR/RP3133LD/V006

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
W1	Total suspended solids	100 mg/l	No release		BS EN 872:2005			
W1	Ammoniacal nitrogen	2 mg/l	No release		BS 6068-2.11			
W1	Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l	No release		BS 6068-2.89			
W1	Total hydrocarbon oil	3 mg/l	No release		EN ISO 9377-2			
W1	pH (minimum daily value)	6	No release		BS 6068-2.50:1995			
W1	pH (maximum daily value)	9	No release		BS 6068-2.50:1995			
W1	pH (average daily value)	-	No release		BS 6068-2.50:1995			
W2	Differential total suspended solids	50 mg/l	0.00	mg/l	BS EN 872:2005			
W2	Ammoniacal nitrogen	0.1 mg/l (above background)	0.007 (above background)	mg/l	BS6068-2.11			
W2	Differential temperature (rolling 98th percentile)	13.5°C	10.1	°C	ISO, BS EN or SCA Blue Book Method			
W2	Differential temperature (average daily value)	-	8.2	°C	ISO, BS EN or SCA Blue Book Method			
W2	Differential temperature (maximum daily value)	-	13.0	°C	ISO, BS EN or SCA Blue Book Method			
W2	Total hydrocarbon oil	3 mg/l	0.251	mg/l	EN ISO 9377-2			
W2	pH (minimum value)	5.8	6.2		BS 6068-2.50:1995			
W2	pH (maximum 95%ile value)	8.5	8.1		BS 6068-2.50:1995			
W2	pH (minimum 95%ile value)	6	6.2		BS 6068-2.50:1995			
W2	pH (average value)	-	6.5		BS 6068-2.50:1995			

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty[5]
SWTP1	Mercury and its compounds, expressed as mercury (Total Hg) (maximum daily value)	0.001 mg/l (above background)	0.0005 mg/l (above background)	BS EN 17852			
SWTP1	Mercury and its compounds, expressed as mercury (Total Hg) (monthly average of daily samples)	0.0005 mg/l (above background)	0.0003 mg/l (above background)	BS EN 17852			
SWTP1	Cadmium and its compounds, expressed as cadmium (Total Cd) (monthly average of daily samples)	0.0002 mg/l (above background)	0.00000 mg/l (above background)	BS 6068-2.89			
SWTP2	Mercury and its compounds, expressed as mercury (Total Hg) (maximum daily value)	0.001 mg/l (above background)	0.0002 mg/l	BS EN 17852			
SWTP2	Mercury and its compounds, expressed as mercury (Total Hg) (monthly average of daily samples)	0.0005 mg/l (above background)	0.0002 mg/l (above background)	BS EN 17852			
SWTP2	Cadmium and its compounds, expressed as cadmium (Total Cd) (monthly average of daily samples)	0.0002 mg/l (above background)	0.00001 mg/l (above background)	BS 6068-2.89			
SWTP3	Mercury and its compounds, expressed as mercury (Total Hg) (maximum daily value)	0.001 mg/l (above background)	0.0004 mg/l (above background)	BS EN 17852			
SWTP3	Mercury and its compounds, expressed as mercury (Total Hg) (monthly average of daily samples)	0.0005 mg/l (above background)	0.0003 mg/l (above background)	BS EN 17852			
SWTP3	Cadmium and its compounds, expressed as cadmium (Total Cd) (monthly average of daily samples)	0.0002 mg/l (above background)	0.00000 mg/l (above background)	BS 6068-2.89			

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
W2	Dissolved oxygen (minimum value)	-	Instrument Fault		EN 25814			
W2	Dissolved oxygen (maximum value)	-			EN 25814			
W2	Dissolved oxygen (average value)	-			EN 25814			
SWTP1	pH (average value)	-	2.8		BS 6068-2.50:1995			
SWTP1	Flow (average daily value)	-	17259	m3/h	BS3680			
SWTP1	Flow (Total Monthly Volume)	-	9834489	m3	BS3680			
SWTP1	Arsenic and its compounds, expressed as arsenic (Total As)	-	0.0044	mg/l	BS 6068			
SWTP1	Lead and its compounds, expressed as lead (Total Pb) (monthly average of daily samples)	0.004 mg/l	0.0002	mg/l	BS 6068			
		(above background)	(above background)					
SWTP1	Chromium and its compounds, expressed as chromium (Total Cr VI)	-	0.0300	mg/l	BS 6068			
SWTP1	Zinc and its compounds, expressed as zinc (Total Zn) (monthly average of daily samples)	0.01 mg/l	0.000	mg/l	BS 6068			
		(above background)	(above background)					
SWTP1	Selenium and its compounds, expressed as selenium (Total Se)	-	0.0017	mg/l	BS 6068			

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
SWTP2	pH (average value)	-	2.8		BS 6068-2.50:1995			
SWTP2	Flow (average daily value)	-	19332	m3/h	BS3680			
SWTP2	Flow (Total Monthly Volume)	-	12865686	m3	BS3680			
SWTP2	Arsenic and its compounds, expressed as arsenic (Total As)	-	0.0042	mg/l	BS 6068			
SWTP2	Lead and its compounds, expressed as lead (Total Pb) (monthly average of daily samples)	0.004 mg/l (above background)	0.0002 (above background)	mg/l	BS 6068			
SWTP2	Chromium and its compounds, expressed as chromium (Total Cr VI)	-	0.0300	mg/l	BS 6068			
SWTP2	Zinc and its compounds, expressed as zinc (Total Zn) (monthly average of daily samples)	0.01 mg/l (above background)	0.008 (above background)	mg/l	BS 6068			
SWTP2	Selenium and its compounds, expressed as selenium (Total Se)	-	0.0009	mg/l	BS 6068			

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
SWTP3	pH (average value)	-	3.4		BS 6068-2.50:1995			
SWTP3	Flow (average daily value)	-	18387	m3/h	BS3680			
SWTP3	Flow (Total Monthly Volume)	-	12964483	m3	BS3680			
SWTP3	Arsenic and its compounds, expressed as arsenic (Total As)	-	0.0036	mg/l	BS 6068			
SWTP3	Lead and its compounds, expressed as lead (Total Pb) (monthly average of daily samples)	0.004 mg/l	0.0001	mg/l	BS 6068			
		(above background)	(above background)					
SWTP3	Chromium and its compounds, expressed as chromium (Total Cr VI)	-	0.0300	mg/l	BS 6068			
SWTP3	Zinc and its compounds, expressed as zinc (Total Zn) (monthly average of daily samples)	0.01 mg/l	0.000	mg/l	BS 6068			
		(above background)	(above background)					
SWTP3	Selenium and its compounds, expressed as selenium (Total Se)	-	0.0008	mg/l	BS 6068			

[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 G Cox Date 16-12-14 (authorised to sign as representative of the Operator)

Reporting of Surface Water Monitoring for the period from ...1st November 2014...to...30th November 2014.....

Operator: RWE Generation UK plc **Form:** **Water2 /25/01/2013**

Location: Aberthaw **Version:** **V.7 Jan 2013**

Permit/Variation Number: EPR/RP3133LD/V006

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]		Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Seawater intake from Bristol Channel	Total suspended solids	-	53.60	mg/l	BS EN 872:2005			
Seawater intake from Bristol Channel	pH (average value)	-	7.9		BS 6068-2.50:1995			
Seawater intake from Bristol Channel	Mercury and its compounds, expressed as mercury (Total Hg)	-	0.00001	mg/l	BS EN 17852			
Seawater intake from Bristol Channel	Mercury (on filtered sample)	-	<0.00001	mg/l	BS EN 17852			
W2	Mercury and its compounds, expressed as mercury (Total Hg) (monthly cumulative mass)	60kg/yr	31.1	kg	BS EN 17852			

[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 G Lott Date 16-12-14 (authorised to sign as representative of the Operator)