

Form Name

IED Reporting - Energy Usage & Emissions for the year:

2016

Operator: RWE Generation UK

Site Location: Aberthaw Power Station

Permit/Variation number: RP3133LD LCP: 283

LCP Net Rated Thermal Input Capacity (MW): 4082

Parameter	TOTAL	By Fuel					
		Coal	Lignite	Peat	Biomass	Other solid	Liquid fuels
Annual energy input (TJ)	64986.8	63116.5			393.5	155.7	1321.0
Total Annual SO ₂ emission (tonnes)	3398.19						
Total Annual NO _x emission (tonnes)	17084.58						
Total Annual Dust (PM) emission (tonnes)	245.45						

Signed on behalf of the Operator

A. Zwißner

Date 28/01/2017

NOTES:

- (a) Annual energy input must be reported in TJ to 1 decimal places
- (b) Annual emissions to air must be reported to 2 decimal places and exclude start-up and shut-down
- (c) All forms must be saved in the format IED AR1—DEFRA IED LCP Number – Inventory Year i.e. IED AR1-XXX-2013
- (d) No PDF documents shall be accepted
- (e) Upload Forms held on GOV.UK will be accepted other variants of the forms will be automatically rejected which may impact their statutory obligations to report on time

Transitional National Plan Annual Verification Report (v1.0)				TNP YEAR	1 (2016)		
TNP Species: NO _x or SO ₂ or Dust	SO₂	ELV¹: (mg/m ³)	440	LCP: (TNP ref.)	283		
Process Operator: RWE Generation UK plc				Permit No:	RP3133LD		
Address: Aberthaw Power Station, The Leys, Aberthaw, Near Barry, Vale of Glamorgan, CF62 4ZW				TNP Contact:	Amy Lavisher		
				Tel No:	01446 752270		
				Email:	amy.lavisher@rwe.com		
EN 15259 (Representative Sampling)							
EN 15259: (PASS/FAIL)	PASS		Test Date(s): 2nd June 2010				
Non-Compliances: (including stratification factors if applied in addition to QAL2 factors)							
QAL1 (Instrument Suitability)							
Make/Model: Pulsi 200 Series				MCERTS: Yes (Y/N)	MC990 006/07		
Manufacturer: Procal				Sample Type ² :	In-Situ IR		
QAL2 (Calibration)³ Low Range							
LCP unit within windshield or Instrument number:	-	Unit 7	Unit 8	Unit 9			
QAL2 Factors: b (gradient) ⁴	-	1.082	0.98	1.028			
a (offset)	mg/m ³	-6.1	-1.9	0.304			
Test date	-	01/03/2009	01/10/2009	01/03/2016			
Date applied ⁵	-	18/08/2009	08/03/2010	13/09/2016			
Variability ⁶	mg/m ³	9.37	6.28	10.51			
VCR from test data ^{7a}	mg/m ³	440	440	713			
VCR extended (if applicable) ^{7b}	mg/m ³	749.3	677.8	n/a			
Second QAL2 (Calibration) High Range							
QAL2 Factors: b (gradient) ⁴	-	0.952	0.984	1.004			
a (offset)	mg/m ³	7.158	-1.8	1.637			
Test date	-	01/12/2011	01/10/2009	01/03/2016			
Date applied ⁵	-	06/03/2012	08/03/2010	13/09/2016			
Variability ⁶	mg/m ³	14.12	6.3	14.56			
VCR from test data ^{7a}	mg/m ³	2302.4	440	720			
VCR extended (if applicable) ^{7b}	mg/m ³	2822.1	2781	1133			
U7 AST U8 QAL2 (Annual Surveillance Test) High Range							
LCP units within windshield:	-	Unit 7	Unit 8	Unit 9	Unit 7	Unit 8	Unit 9
Test date	-	07/03/2016	26/10/2016				
Variability ⁶	mg/m ³	10.15	6.99				
Validity (Mean Deviation) ⁶	mg/m ³	44.9	44.9				
VCR extended (if applicable) ^{7c}	mg/m ³	n/a	n/a				
QAL3 (Ongoing Drift Checks)							
Frequency ⁸ :	Every	Daily Zero	Daily Zero	Daily Zero	Weekly Span	Weekly Span	Weekly Span
Alarm (Action) Limit:	ppm	30.8	30.8	30.8	30.8	30.8	30.8
Warning Limit:	ppm	7.7	7.7	7.7	15.4	15.4	15.4
Signature: A. Lavisher						Date: 30/1/2017	

Transitional National Plan Annual Verification Report (v1.0)				TNP YEAR	1 (2016)		
TNP Species: NO _x or SO ₂ or Dust	NO_x	ELV¹: (mg/m ³)	1080	LCP: (TNP ref.)	283		
Process Operator: RWE Generation UK plc			Permit No:		RP3133LD		
Address: Aberthaw Power Station, The Leys, Aberthaw, Near Barry, Vale of Glamorgan, CF62 4ZW			TNP Contact:		Amy Lavisher		
			Tel No:		01446 752270		
			Email:		amy.lavisher@rwe.com		
EN 15259 (Representative Sampling)							
EN 15259: (PASS/FAIL)		PASS		Test Date(s):		2nd June 2010	
Non-Compliances: (including stratification factors if applied in addition to QAL2 factors)							
QAL1 (Instrument Suitability)							
Make/Model: Pulsi 200 Series				MCERTS: Yes		MC990	
				(Y/N)		006/07	
Manufacturer: Procal				Sample Type ² :		In-Situ IR	
QAL2 (Calibration)³							
LCP unit within windshield or Instrument number:	-	Unit 7	Unit 8	Unit 9			
QAL2 Factors: b (gradient) ⁴	-	1.047	1.071	1.03			
a (offset)	mg/m ³	4.752	-3.657	-0.69			
Test date	-	01/09/2013	01/03/2013	01/03/2016			
Date applied ⁵	-	14/03/2015	21/05/2014	13/09/2016			
Variability ⁶	mg/m ³	12.91	14.93	12.93			
VCR from test data ^{7a}	mg/m ³	1202	1263	527			
VCR extended (if applicable) ^{7b}	mg/m ³	1634.5	1652	1684			
Second QAL2 (Calibration) (if applicable)							
QAL2 Factors: b (gradient) ⁴	-						
a (offset)	mg/m ³						
Test date	-						
Date applied ⁵	-						
Variability ⁶	mg/m ³						
VCR from test data ^{7a}	mg/m ³						
VCR extended (if applicable) ^{7b}	mg/m ³						
U7 AST U8 QAL2 (Annual Surveillance Test)							
LCP units within windshield:	-	Unit 7	Unit 8	Unit 9	Unit 7	Unit 8	Unit 9
Test date	-	07/03/2016	26/10/2016				
Variability ⁶	mg/m ³	9.49	5.97				
Validity (Mean Deviation) ⁶	mg/m ³	110.2	110.2				
VCR extended (if applicable) ^{7c}	mg/m ³	n/a	n/a				
QAL3 (Ongoing Drift Checks)							
Frequency ⁸ :	Every	Daily Zero	Daily Zero	Daily Zero	Weekly Span	Weekly Span	Weekly Span
Alarm (Action) Limit:	ppm	100.3	100.3	100.3	100.3	100.3	100.3
Warning Limit:	ppm	25.1	25.1	25.1	50.2	50.2	50.2
Signature: A. Lavisher						Date: 30/1/2017	

Transitional National Plan Annual Verification Report (v1.0)				TNP YEAR	1 (2016)		
TNP Species: NO _x or SO ₂ or Dust	Dust	ELV¹: (mg/m ³)	35	LCP: (TNP ref.)	283		
Process Operator: RWE Generation UK plc			Permit No:		EPR/RP3133LD		
Address: Aberthaw Power Station, The Leys, Aberthaw, Near Barry, Vale of Glamorgan, CF62 4ZW			TNP Contact:		Amy Lavisher		
			Tel No:		01446 752270		
			Email:		amy.lavisher@rwe.com		
EN 15259 (Representative Sampling)							
EN 15259: (PASS/FAIL)		PASS		Test Date(s):		2nd June 2010	
Non-Compliances: (including stratification factors if applied in addition to QAL2 factors)							
QAL1 (Instrument Suitability)							
Make/Model: OMD41				MCERTS: Yes MC040 (Y/N) 042/01			
Manufacturer: Erwin Sick (U7 & U9 Dust Hunter)				Sample Cross Duct Type ² : forward scatter			
QAL2 (Calibration)³							
LCP unit within windshield or Instrument number:	-	Unit 7	Unit 8	Unit 9			
QAL2 Factors: b (gradient) ⁴	-	1.433	1.208	1.262			
a (offset)	mg/m ³	0.6	-0.303	0.919			
Test date	-	01/03/2009	01/03/2013	01/03/2016			
Date applied ⁵	-	26/03/2010	14/02/2014	13/09/2016			
Variability ⁶	mg/m ³	1.54	0.83	2.21			
VCR from test data ^{7a}	mg/m ³	31.5	25.8	22.3			
VCR extended (if applicable) ^{7b}	mg/m ³	55	55	83.4			
Second QAL2 (Calibration) (if applicable)							
QAL2 Factors: b (gradient) ⁴	-						
a (offset)	mg/m ³						
Test date	-						
Date applied ⁵	-						
Variability ⁶	mg/m ³						
VCR from test data ^{7a}	mg/m ³						
VCR extended (if applicable) ^{7b}	mg/m ³						
AST (Annual Surveillance Test)							
LCP units within windshield:	-	Unit 7	Unit 8	Unit 9	Unit 7	Unit 8	Unit 9
Test date	-	07/03/2016	26/10/2016				
Variability ⁶	mg/m ³	1.71	35.35				
Validity (Mean Deviation) ⁶	mg/m ³	5.36	5.36				
VCR extended (if applicable) ^{7c}	mg/m ³	n/a	n/a				
QAL3 (Ongoing Drift Checks)							
Frequency ⁸ :	Every	Daily Zero	Daily Zero	Daily Zero	Weekly Span	Weekly Span	Weekly Span
Alarm (Action) Limit:	%	2.4	2.4	2.4	2.4	2.4	2.4
Warning Limit:	%	1.0	1.0	1.0	1.5	1.5	1.5
Signature: A. Lavisher						Date: 30/1/2017	

Transitional National Plan Annual Verification Report (v1.0)				TNP YEAR	1 (2016)
Peripheral Species: O ₂ or H ₂ O (if applicable)	O2	ELV¹: (%)	6	LCP: (TNP ref.)	283
Process Operator: RWE Generation UK plc			Permit No:	RP3133LD	
Address: Aberthaw Power Station, The Leys, Aberthaw, Near Barry, Vale of Glamorgan, CF62 4ZW			TNP Contact:	Amy Lavisher	
			Tel No:	01446 752270	
			Email:	amy.lavisher@rwe.com	
EN 15259 (Representative Sampling)					
EN 15259: (PASS/FAIL)		Test Date(s):			
Non-Compliances: (including stratification factors if applied in addition to QAL2 factors)					
QAL1 (Instrument Suitability)					
Make/Model: ZFG2			MCERTS: Yes MC (Y/N) 990001/ 03		
Manufacturer: ABB			Sample Type ² : In situ		
QAL2 (Calibration)³					
LCP unit within windshield or Instrument number:	-	Unit 7	Unit 8	Unit 9	
QAL2 Factors: b (gradient) ⁴	-	1	1	1	
a (offset)	%	0	0	0	
Test date	-				
Date applied ⁵	-	n/a	n/a	n/a	
Variability ⁶	%				
VCR from test data ^{7a}	%				
VCR extended (if applicable) ^{7b}	%				
Second QAL2 (Calibration) (if applicable)					
QAL2 Factors: b (gradient) ⁴	-				
a (offset)	%				
Test date	-				
Date applied ⁵	-				
Variability ⁶	%				
VCR from test data ^{7a}	%				
VCR extended (if applicable) ^{7b}	%				
AST (Annual Surveillance Test)					
LCP units within windshield:	-	Unit 7	Unit 8	Unit 9	Unit 7
Test date	-				
Variability ⁶	%				
Validity (Mean Deviation) ⁶	%				
VCR extended (if applicable) ^{7c}	%				
QAL3 (Ongoing Drift Checks)					
Frequency ⁸ :	Every				
Alarm (Action) Limit:	%				
Warning Limit:	%				
Signature: <i>A. Lavisher</i>					Date: 30/1/2017

Transitional National Plan Annual Verification Report (V1.0)				TNP YEAR	1 (2016)		
Peripheral Species: O ₂ or H ₂ O (if applicable)	H2O	ELV¹: (%)	6	LCP: (TNP ref.)	283		
Process Operator: RWE Generation UK plc		Permit No:		RP3133LD			
Address: Aberthaw Power Station, The Leys, Aberthaw, Near Barry, Vale of Glamorgan, CF62 4ZW		TNP Contact:		Amy Lavisher			
		Tel No:		01446 752270			
		Email:		amy.lavisher@rwe.com			
EN 15259 (Representative Sampling)							
EN 15259: (PASS/FAIL)		Test Date(s):					
Non-Compliances: (including stratification factors if applied in addition to QAL2 factors)							
QAL1 (Instrument Suitability)							
Make/Model: Pulsi 200 Series				MCERTS: Yes (Y/N)	MC990 006/07		
Manufacturer: Procal				Sample Type ² :	In situ		
QAL2 (Calibration)³							
LCP unit within windshield or Instrument number:	-	Unit 7	Unit 8	Unit 9			
QAL2 Factors: b (gradient) ⁴	-	n/a	n/a	n/a			
a (offset)	%	n/a	n/a	n/a			
Test date	-						
Date applied ⁵	-	n/a	n/a	n/a			
Variability ⁶	%						
VCR from test data ^{7a}	%						
VCR extended (if applicable) ^{7b}	%						
Second QAL2 (Calibration) (if applicable)							
QAL2 Factors: b (gradient) ⁴	-						
a (offset)	%						
Test date	-						
Date applied ⁵	-						
Variability ⁶	%						
VCR from test data ^{7a}	%						
VCR extended (if applicable) ^{7b}	%						
AST (Annual Surveillance Test)							
LCP units within windshield:	-	Unit 7	Unit 8	Unit 9	Unit 7	Unit 8	Unit 9
Test date	-						
Variability ⁶	%						
Validity (Mean Deviation) ⁶	%						
VCR extended (if applicable) ^{7c}	%						
QAL3 (Ongoing Drift Checks)							
Frequency ⁸ :	Every						
Alarm (Action) Limit:	%						
Warning Limit:	%						
Signature: <i>A. Lavisher</i>						Date: 30/1/2017	

RELEASES TO AIR
ANNUAL RETURN
OPERATING HOURS

Operator: RWE Generation UK Form: IED HR1
Location: Abertawe Power Station
Permit/Variation Number: EPR/RP3133LD

Year: 2016	LCP 283 (hours)	Bypass (hours)	LCP 423 (hours)	Bypass (hours)
Annual Operating Hours ^{(a), (b)}	6174.65		5.23	
Cumulative Operating Hours ^{(a), (d)}				
Derogated annual hours ^(e)				
Five year rolling average ^(f)				

NOTES:

- (a) Annual operating hours for every LCP from 1-Jan in calendar year. (For gas turbines with a Bypass stack, include the Bypass stack operating hours during normal operation even though these are reported separately).
- (b) For gas turbines with a Bypass stack, report Bypass operating hours from 1-Jan in calendar year, excluding Start-Up and Shut-down, in the adjacent column (labelled Bypass) which may be deleted if not applicable.
- (c) Cumulative operating hours from 1-Jan-2016 for LCP subject to a Limited Lifetime Derogation or a 10,000h monitoring derogation. (For gas turbines with a Bypass stack, include the Bypass stack operating hours during normal operation even though these are reported separately).
- (d) For gas turbines with a Bypass stack, report Bypass Cumulative operating hours from 1-Jan-2016 if subject to a separate 10,000h monitoring derogation, in the adjacent column (labelled Bypass).
- (e) Annual operating hours in calendar year from entry date (in first year as applicable) or from 1-Jan in calendar year, for each 1,500h ELV derogated Unit/LCP only.
- (f) Five year running average from entry date for each 1,500h derogated Unit/LCP only.
- (g) General note: hours are reported as a decimal number to two decimal places.

Signed on behalf of the Operator by: A. Zander

Date of return: 23 January 2017

Permit Number: RP3133LD Operator: RWE Generation UK plc

Installation: Aberthaw Power Station Form Number: Air1 / 30/11/07

Reporting of emissions to air for the period from ... 1st January 2016 to ... 31st December 2016

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times	Uncertainty ^[4]
A5	Ammonia	2 mg/m ³	Annual monitoring for 2016	0.023 mg/Nm ³	BS EN 14791	3 rd February 2016	+/-0.003

[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.

[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.

* Emissions results are reported at reference conditions of 273 K and 101.3 kPa without correction for moisture content or oxygen.

Signed *A. J. Jones* Date *28/01/2017*
(Authorised to sign as representative of Operator)