

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS ^{(a),(b),(c)}



OPERATING MODE: Combined Cycle

Operator: RWE Generation UK plc

Form: IED CON2 (Gas Turbines)

Location: Pembroke

Version/date: V.10.9 Dec 2015

Permit/Variation Number: EPR/DP3333TA

Year: 2020	LCP: Unit 11 A1							
	NO _x (mg/m ³)				CO (mg/m ³)			
Month	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)
January	10.37	14.63	11.79	11.78	1.46	11.70	2.54	9.53
February	10.91	15.33	12.99	12.54	1.43	7.29	3.43	44.67
March	10.96	14.71	12.54	12.54	1.50	10.94	2.46	10.25
April	11.24	15.35	11.94	11.73	1.33	6.72	1.61	5.51
May	11.44	15.59	12.46	12.16	1.20	2.08	1.48	4.05
June	10.86	14.68	11.72	11.54	1.03	5.79	1.24	4.58
July	11.27	15.29	12.36	12.27	0.77	2.39	0.94	12.21
August	12.43	17.47	14.65	14.65	0.84	3.19	1.38	4.17
September	12.52	17.90	15.30	15.01	1.07	4.45	1.69	3.36
October	11.98	16.44	13.92	13.28	0.68	4.42	0.91	6.49
November	11.60	16.68	13.45	13.08	0.83	21.74	2.39	7.96
December	11.73	15.37	13.74	13.74	0.74	1.91	0.99	11.93
Monthly ELV/Daily ELV ^(f)	50.00	50.00	50.00	50.00	100.00	200.00	100.00	250.00
Annual 95 th Percentile ^(g)								
Annual Percentile ELV ^(h)								

NOTES:

(a) All data based on validated hourly average concentrations, excluding start-up and shut-down and periods of malfunction or breakdown of abatement equipment, at 15% O₂, dry, 273.15K, 101.325 kPa

(b) Annual percentiles are submitted with the final return (Quarter 4)

(c) Extend report to cover the required number of LCP on each site and repeat report for each separately regulated Operating Mode as required, e.g., Combined Cycle, Open Cycle, Supplementary firing, Auxiliary firing

(d) Averages determined at loads in the range 70% < Load ≤ 100% ISO base load and above

(e) Averages determined at loads in the range MSUL* < Load ≤ 100% ISO base load and above
(* For a 3 parameter approach, from the point of Start-Up to the point of Shut-down)

(f) Leave the Daily ELV blank if this is applied as a 95th percentile ELV within the Permit

(g) For each pollutant, report the Annual 95th percentile of hourly averages in the first column and, if applicable, the Annual 95th percentile of daily means in the second column

(h) For each pollutant, report the Annual 95th percentile ELV for hourly averages in the first column and, if applicable, the Annual 95th percentile ELV for daily means in the second column

Signed on behalf of the Operator by:

David Williams

Date of return:

04 January 2021

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS ^{(a),(b),(c)}



OPERATING MODE: Combined Cycle

Operator: RWE Generation UK plc

Form: IED CON2 (Gas Turbines)

Location: Pembroke

Version/date: V.10.9 Dec 2015

Permit/Variation Number: EPR/DP3333TA

Year: 2020	LCP: Unit 21 A2							
	NO _x (mg/m ³)				CO (mg/m ³)			
Month	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)
January	13.59	19.65	16.10	15.55	0.17	16.53	1.28	14.12
February	13.71	18.71	15.99	15.12	0.43	11.14	0.94	11.02
March	13.39	18.79	15.94	15.46	0.44	6.84	0.78	16.37
April	13.63	18.49	14.85	14.80	0.51	1.86	0.93	5.10
May	13.39	18.00	14.93	14.22	0.21	0.60	0.58	6.93
June	13.17	18.64	15.30	13.63	0.38	7.61	0.73	5.51
July	13.59	19.41	16.54	16.01	0.45	2.60	0.55	9.03
August	14.37	19.89	16.05	16.05	0.45	5.08	0.65	8.36
September	14.82	19.92	17.12	17.05	0.41	2.42	0.57	11.72
October	13.77	20.22	18.05	16.95	0.33	0.46	0.36	26.06
November	14.04	20.91	16.14	15.65	0.38	18.68	1.36	8.33
December	14.36	19.28	17.17	16.82	0.24	10.22	0.85	3.58
Monthly ELV/Daily ELV ^(f)	50.00	50.00	50.00	50.00	100.00	200.00	100.00	250.00
Annual 95 th Percentile ^(g)								
Annual Percentile ELV ^(h)								

NOTES:

(a) All data based on validated hourly average concentrations, excluding start-up and shut-down and periods of malfunction or breakdown of abatement equipment, at 15% O₂, dry, 273.15K, 101.325 kPa

(b) Annual percentiles are submitted with the final return (Quarter 4)

(c) Extend report to cover the required number of LCP on each site and repeat report for each separately regulated Operating Mode as required, e.g., Combined Cycle, Open Cycle, Supplementary firing, Auxiliary firing

(d) Averages determined at loads in the range 70% < Load ≤ 100% ISO base load and above

(e) Averages determined at loads in the range MSUL* < Load ≤ 100% ISO base load and above
(* For a 3 parameter approach, from the point of Start-Up to the point of Shut-down)

(f) Leave the Daily ELV blank if this is applied as a 95th percentile ELV within the Permit

(g) For each pollutant, report the Annual 95th percentile of hourly averages in the first column and, if applicable, the Annual 95th percentile of daily means in the second column

(h) For each pollutant, report the Annual 95th percentile ELV for hourly averages in the first column and, if applicable, the Annual 95th percentile ELV for daily means in the second column

Signed on behalf of the Operator by:

Jaydel Williams

Date of return:

04 January 2021

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS ^{(a),(b),(c)}

OPERATING MODE: Combined Cycle

Operator: RWE Generation UK plc

Form: IED CON2 (Gas Turbines)

Location: Pembroke

Version/date: V.10.9 Dec 2015

Permit/Variation Number: EPR/DP3333TA



Year: 2020	LCP: Unit 31 A3							
	NO _x (mg/m ³)				CO (mg/m ³)			
Month	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)
January	11.69	16.15	12.99	12.99	0.41	0.94	0.49	3.43
February	12.87	17.94	14.85	14.85	0.41	1.27	0.52	24.43
March	12.67	18.75	15.38	15.38	0.40	2.02	0.62	2.08
April	12.30	16.85	13.69	13.69	0.34	0.89	0.49	2.49
May	12.94	15.72	13.05	12.85	0.19	0.23	0.20	0.49
June	13.94	19.32	15.11	15.11	0.16	0.36	0.22	0.51
July	13.79	18.67	15.90	15.70	0.13	0.44	0.16	2.17
August	15.64	20.19	17.46	17.46	0.13	1.45	0.18	1.53
September	14.31	20.79	18.22	18.22	0.58	1.42	1.16	7.52
October	11.50	17.39	14.25	13.08	0.67	3.63	1.18	8.68
November	12.10	16.96	14.13	13.75	0.42	4.37	0.78	7.29
December	12.91	17.14	14.82	14.82	0.49	2.26	0.77	2.59
Monthly ELV/Daily ELV ^(f)	50.00	50.00	50.00	50.00	100.00	200.00	100.00	250.00
Annual 95 th Percentile ^(g)								
Annual Percentile ELV ^(h)								

NOTES:

(a) All data based on validated hourly average concentrations, excluding start-up and shut-down and periods of malfunction or breakdown of abatement equipment, at 15% O₂, dry, 273.15K, 101.325 kPa

(b) Annual percentiles are submitted with the final return (Quarter 4)

(c) Extend report to cover the required number of LCP on each site and repeat report for each separately regulated Operating Mode as required, e.g., Combined Cycle, Open Cycle, Supplementary firing, Auxiliary firing

(d) Averages determined at loads in the range 70% < Load ≤ 100% ISO base load and above

(e) Averages determined at loads in the range MSUL* < Load ≤ 100% ISO base load and above
(* For a 3 parameter approach, from the point of Start-Up to the point of Shut-down)

(f) Leave the Daily ELV blank if this is applied as a 95th percentile ELV within the Permit

(g) For each pollutant, report the Annual 95th percentile of hourly averages in the first column and, if applicable, the Annual 95th percentile of daily means in the second column

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Signed on behalf of the Operator by:

David Williams

Date of return:

04 January 2021

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS ^{(a),(b),(c)}



OPERATING MODE: Combined Cycle

Operator: RWE Generation UK plc

Form: IED CON2 (Gas Turbines)

Location: Pembroke

Version/date: V.10.9 Dec 2015

Permit/Variation Number: EPR/DP3333TA

Year: 2020	LCP: Unit 41 A4							
	NO _x (mg/m ³)				CO (mg/m ³)			
Month	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)
January	11.81	15.08	12.84	12.67	0.89	5.87	2.07	11.52
February	12.19	16.67	14.60	14.00	0.94	6.67	1.25	27.97
March	12.09	15.67	13.07	13.78	0.93	4.20	1.91	10.20
April	12.14	17.19	15.89	15.79	1.02	4.96	1.49	12.40
May	12.92	17.05	14.98	17.23	0.86	5.01	1.43	14.27
June	12.20	16.18	13.89	15.91	0.82	5.22	1.10	16.80
July	13.34	16.85	15.27	15.24	0.74	3.25	1.05	1.75
August	9.90	14.21	10.15	11.77	0.57	0.63	0.57	0.67
September	10.45	15.50	13.59	13.59	0.62	3.23	0.76	35.40
October	10.26	14.31	12.56	11.90	0.78	10.33	1.46	24.13
November	9.22	13.33	10.73	10.44	1.01	22.90	3.86	60.57
December	8.91	12.35	10.65	10.65	1.00	22.69	2.79	33.22
Monthly ELV/Daily ELV ^(f)	50.00	50.00	50.00	50.00	100.00	200.00	100.00	250.00
Annual 95 th Percentile ^(g)								
Annual Percentile ELV ^(h)								

NOTES:

(a) All data based on validated hourly average concentrations, excluding start-up and shut-down and periods of malfunction or breakdown of abatement equipment, at 15% O₂, dry, 273.15K, 101.325 kPa

(b) Annual percentiles are submitted with the final return (Quarter 4)

(c) Extend report to cover the required number of LCP on each site and repeat report for each separately regulated Operating Mode as required, e.g., Combined Cycle, Open Cycle, Supplementary firing, Auxiliary firing

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Signed on behalf of the Operator by:

Jaydel Williams

Date of return:

04 January 2021

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS ^{(a),(b),(c)}

OPERATING MODE: Combined Cycle

Operator: RWE Generation UK plc

Form: IED CON2 (Gas Turbines)

Location: Pembroke

Version/date: V.10.9 Dec 2015

Permit/Variation Number: EPR/DP3333TA



Year: 2020	LCP: Unit 51 A5							
	NO _x (mg/m ³)				CO (mg/m ³)			
Month	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)	Monthly Mean (d)	Max Hourly Mean (d)	Max Daily Mean (d)	Part Load Max Daily Mean (e)
January	25.74	35.08	30.99	28.87	0.27	9.63	1.43	8.30
February	29.02	39.01	34.76	34.45	0.33	7.36	0.86	31.42
March	26.11	35.44	32.18	31.45	0.29	1.09	0.36	32.09
April	22.79	31.60	26.49	24.42	0.32	4.16	1.19	22.23
May	25.10	36.81	33.37	33.26	0.34	4.82	0.64	15.15
June	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
July	14.59	21.63	18.64	17.49	1.23	7.37	1.45	5.86
August	16.05	22.31	18.87	18.87	0.44	7.22	1.17	3.07
September	15.36	22.77	18.06	18.06	0.33	7.96	1.60	12.81
October	16.02	24.70	20.65	20.65	0.42	12.88	1.62	23.32
November	16.39	23.90	20.11	19.08	0.41	11.71	2.03	34.55
December	16.77	24.15	20.07	19.87	0.51	26.73	2.92	42.32
Monthly ELV/Daily ELV ^(f)	50.00	50.00	50.00	50.00	100.00	200.00	100.00	250.00
Annual 95 th Percentile ^(g)								
Annual Percentile ELV ^(h)								

NOTES:

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Signed on behalf of the Operator by: *David Williams*

Date of return: 04 January 2021