

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: 2021	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	11.53	15.82	13.85	13.85	1.07	19.73	2.12	9.33
February	11.26	16.53	13.02	13.14	0.83	3.64	1.44	4.75
March	11.59	15.64	14.04	13.96	0.77	1.65	1.12	6.35
April	12.15	17.12	14.14	13.87	0.65	1.57	0.83	1.29
May	12.55	16.33	14.21	14.21	0.64	1.30	0.68	3.38
June	12.07	17.03	14.04	14.04	0.65	1.90	0.72	2.33
July	11.69	15.39	13.66	13.65	0.62	1.63	0.67	1.11
August	12.82	17.67	15.65	15.56	0.66	1.30	0.72	3.25
September	13.02	17.37	14.94	14.83	0.66	1.40	0.69	2.04
October								
November								
December								
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:

Dafydd Williams

Date of return:

13 October 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: 2021	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	14.75	20.10	17.51	17.17	0.15	8.54	0.48	9.13
February	14.72	19.74	17.52	16.88	0.14	10.75	1.45	26.21
March	14.91	20.17	17.60	15.81	0.10	3.06	0.39	19.08
April	17.70	22.81	20.15	20.15	0.41	0.51	0.45	4.48
May	17.35	22.64	20.54	20.54	0.41	3.55	0.54	1.97
June	15.35	21.54	18.66	17.71	0.34	2.68	0.50	10.31
July	16.40	22.87	19.03	19.03	0.28	1.92	0.36	3.94
August	16.05	23.01	19.08	19.08	0.19	0.97	0.24	3.56
September	16.90	22.69	21.33	18.77	0.14	0.39	0.17	1.62
October								
November								
December								
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:

Jayde Williams

Date of return:

13 October 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: 2021	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	13.72	17.82	15.86	16.01	0.65	6.45	1.04	8.96
February	13.03	17.57	14.96	15.57	0.70	11.78	4.37	33.89
March	12.51	17.39	14.03	14.03	0.61	7.29	1.94	25.41
April	13.62	18.24	15.32	16.00	0.55	4.21	0.73	32.46
May	13.70	17.98	16.45	16.45	0.51	5.99	0.69	4.69
June	13.48	18.49	15.63	15.63	0.41	7.04	0.93	5.57
July	13.64	17.81	16.01	16.01	0.25	5.49	0.65	2.53
August	13.88	18.07	15.76	15.68	0.25	3.23	0.70	4.23
September	13.96	17.81	16.52	15.59	0.25	3.93	0.66	8.65
October								
November								
December								
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

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(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:

13 October 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: 2021	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	8.55	12.23	9.74	9.73	1.13	39.35	3.14	30.89
February	8.40	11.98	9.62	9.27	1.22	42.25	3.08	39.74
March	8.68	12.85	10.41	9.75	1.01	16.63	2.76	43.77
April	10.63	14.89	12.82	12.82	0.57	3.39	1.73	39.46
May	11.37	16.80	14.00	14.00	0.59	18.45	1.96	30.88
June	11.28	16.43	13.96	13.64	0.61	17.16	1.37	12.66
July	10.87	15.09	13.00	13.00	0.65	7.48	0.93	3.82
August	10.98	14.75	11.58	11.51	0.68	2.32	0.82	3.27
September	8.99	13.69	11.57	11.16	0.14	41.05	2.09	38.02
October								
November								
December								
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

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Signed on behalf of the Operator by:

Dafydd Williams

Date of return:

13 October 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: 2021	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	17.55	24.58	20.33	20.33	0.60	26.97	2.46	28.17
February	17.23	25.83	21.56	20.80	0.49	11.68	1.02	44.22
March	19.32	30.25	24.30	23.90	0.52	21.08	1.41	21.27
April	22.23	30.81	27.96	27.89	0.41	2.14	0.63	9.84
May	23.62	30.64	26.97	26.97	0.42	0.57	0.45	5.82
June	21.63	29.53	27.01	26.95	0.52	3.18	0.86	8.89
July	23.50	33.23	27.33	27.33	0.51	3.62	0.68	18.89
August	25.84	35.65	30.83	30.25	0.79	15.57	1.69	35.63
September	25.38	36.50	31.13	31.13	0.86	18.16	2.20	40.85
October								
November								
December								
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: *Jaydick Williams*

Date of return: 13 October 2021