

**RELEASES TO AIR
QUARTERLY RETURN**

**MONTHLY MEAN, MAXIMUM DAILY MEAN, ANNUAL MEAN AND ANNUAL PERCENTILE CONCENTRATIONS (a),(b),(c)
OPERATING MODE:**

Operator: Dow Silicones UK Ltd
Location: Barry Cogeneration Plant
Permit/Variation Number: EPR/JP3632ZH/V004

Form: IED/LCPBREF CON2
(Gas Turbines)
Vers/date: V3.0 Mar 2021

A1 / LCP 60						
Year: 2021	NOx (mg/m3)			CO (mg/m3)		
Month	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean
January	40.4	82.5		6.5	23.2	
February	42.5	48.3		6.	12.1	
March	42.2	46.7		6.9	15.5	
April	41.9	47.3		7.4	18.8	
May	44.5	76.9		5.7	12.	
June	56.7	74.6		4.5	9.6	
July	50.6	71.98		5.09	47.41	
August	34.01	68.64		6.93	17.1	
September	-	-		-	-	
October						
November						
December						
Monthly ELV & Daily ELV (f)	75.	80.		80.	80.	
	Annual mean (d)	Annual ELV		Annual mean (d)	Annual ELV	
Annual Mean & ELV (g)		55.			30.	
	Annual percentile (d)	Annual ELV		Annual percentile (d)	Annual ELV	
Annual 95th Percentile & ELV (h)		125.			80.	

NOTES:

(a) All concentration data, at 15% O₂, dry, 273K, 101.3 kPa, are based on validated hourly mean concentrations, excluding start-up and shut-down, periods of Malfunction or Breakdown of abatement equipment or Black Start operation.

(b) Daily, Monthly and Annual means, and Annual percentile concentrations, are calculated from the validated hourly means defined in (a). CCGT qualifying periods for Hourly, Daily, Monthly and Annual averages are 40m, 6h, 72h or 3d, and 500h, respectively. OCGT qualifying periods are the same apart from the Hourly qualifying period which is reduced to 20m of normal operation. Annual averages, for plants with an Annual ELV, and Annual percentile concentrations, 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 E-DLN < Load ≤ 100% ISO base load and above (where E-DLN is the Effective-DLN load point).

(e) Averages determined 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) When there is an in-year change of ELV, record both ELVs in consecutive rows. For example, compliance with the LCP BREF begins in August 2021 therefore replace 'Period 1' with 'Jan - Jul' and 'Period 2' with 'Aug - Dec'. Otherwise, replace 'Period 1' with 'Jan - Dec' and delete or blank out the row containing 'Period 2'.

(g) For plants with an Annual ELV, for each pollutant, report the Annual mean in the first column and the Annual ELV in the second column. Annual ELVs are not applicable, and are not entered on the form, when the plant operates less than 1500 hours within the reporting year or for plant with a 1500 h/yr five-year rolling average derogation. Otherwise, reporting of the Annual mean begins in 2021 but compliance assessment with the Annual ELV begins in 2022 (incorporating plant operation from 1 January 2022); the Annual ELV is therefore not entered on the form for 2021 reporting

(h) For each pollutant, report the Annual 95th percentile of hourly means in the first column and the Annual 95th percentile ELV in the second column. However, if there is an in-year reduction of the percentile ELV then it is not mandatory to enter the ELV as compliance assessment will commence in the following year

Signed on behalf of the Operator by:



Judith Sartor, Environmental Specialist

Date of return:

29th October 2021

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Year: 2021	A2 / LCP60					
	NOx (mg/m3)			CO (mg/m3)		
Month	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean
January	215.6	221.8		7.8	10.5	
February	215.4	233.9		8.9	14.6	
March	187.4	187.4		8.4	8.4	
April	-	-		-	-	
May	-	-		-	-	
June	-	-		-	-	
July	118.6	105.1		0.9	5.0	
August	116.0	109.9		2.6	71.8	
September	106.1	106.7		20.0	88.3	
October						
November						
December						
Monthly ELV & Daily ELV (f)	100.	110.		80.	80.	
	Annual mean (d)	Annual ELV		Annual mean (d)	Annual ELV	
Annual Mean & ELV (g)		100.			30.	
	Annual percentile (d)	Annual ELV		Annual percentile (d)	Annual ELV	
Annual 95th Percentile & ELV (h)		200.			80.	

NOTES:

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Month	NOx (mg/m3)			CO (mg/m3)		
	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean
January	28.5	72.4		7.8	23.6	
February	27.5	31.6		3.1	12.6	
March	23.	28.1		7.3	16.7	
April	22.4	28.1		9.2	15.7	
May	30.6	80.1		7.2	15.2	
June	-	-		-	-	
July	72.	74.3		7.2	39.8	
August	40.3	76.8		2.3	22.6	
September	25.8	31.4		17.1	76.8	
October						
November						
December						
Monthly ELV & Daily ELV (f)	75.	80.		80.	80.	
	Annual mean (d)	Annual ELV		Annual mean (d)	Annual ELV	
Annual Mean & ELV (g)		55.			30.	
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