

Releases to Air - PPC Continuous Measurement

Operational Summary for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Release Point: A1

Continuous Measurement Form						
Pollutant	Month	Daily Avg ELV (mg/m ³)	Daily Mean ^{[1][2]} (mg/m ³)	Hourly 95th Percentile ELV (mg/m ³)	Cumulative 95th Percentile Hourly Avg Value ^[2] (mg/m ³)	Total Mass Release (kg)
Quarter 1						
NOX	Jan	75	11.62	150	11.60	862.87
CO		100	9.33	100	9.33	562.66
NOX	Feb	75	11.56	150	11.60	521.24
CO		100	9.46	100	9.46	393.73
NOX	Mar	75	12.12	150	11.75	217.90
CO		100	8.57	100	9.46	135.81
Quarter 2						
NOX	Apr	75	14.28	150	14.01	1013.85
CO		100	5.30	100	9.46	314.65
NOX	May	75	14.64	150	14.08	385.73
CO		100	8.20	100	9.46	157.45
NOX	Jun	75	11.55	150	14.08	33.77
CO		100	6.91	100	9.46	23.54
Quarter 3						
NOX	Jul	75	0.00	150	14.08	0.00
CO		100	0.00	100	9.46	0.00
NOX	Aug	75	0.00	150	14.08	0.00
CO		100	0.00	100	9.46	0.00
NOX	Sep	75	14.97	150	14.09	2.05
CO		100	1.88	100	9.46	0.85
Quarter 4						
NOX	Oct	75	14.83	150	14.13	20.13
CO		100	3.18	100	9.46	7.23
NOX	Nov	75	14.72	150	14.19	347.55
CO		100	4.11	100	9.46	101.00
NOX	Dec	75	14.44	150	14.20	882.52
CO		100	6.12	100	9.41	265.54

Signed on behalf of the Operator:

M Secomb

Date:

12 January 2023

[1] The result given is the maximum value obtained during the reporting period expressed in the same terms as the emission limit value.

[2] Concentrations are reported with the uncertainties at 95% confidence level of 10% for CO and 20% for Nox subtracted from the continuous prediction.

Releases to Air - PPC Continuous Measurement

Operational Summary for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Release Point: A2

Continuous Measurement Form						
Pollutant	Month	Daily Avg ELV (mg/m ³)	Daily Mean ^{[1][2]} (mg/m ³)	Hourly 95th Percentile ELV (mg/m ³)	Cumulative 95th Percentile Hourly Avg Value ^[2] (mg/m ³)	Total Mass Release (kg)
Quarter 1						
NOX	Jan	75	22.68	150	23.49	985.20
CO		100	3.26	100	3.26	137.26
NOX	Feb	75	0.00	150	23.49	1.59
CO		100	0.00	100	3.26	2.04
NOX	Mar	75	24.61	150	23.55	27.19
CO		100	3.48	100	3.26	3.40
Quarter 2						
NOX	Apr	75	22.53	150	23.22	802.65
CO		100	6.59	100	5.44	107.29
NOX	May	75	20.00	150	23.20	89.28
CO		100	8.73	100	5.83	24.02
NOX	Jun	75	0.00	150	23.20	0.00
CO		100	0.00	100	5.83	0.00
Quarter 3						
NOX	Jul	75	0.00	150	23.20	0.00
CO		100	0.00	100	5.83	0.00
NOX	Aug	75	0.00	150	23.20	0.40
CO		100	0.00	100	5.83	1.04
NOX	Sep	75	0.00	150	23.20	2.83
CO		100	0.00	100	5.83	4.85
Quarter 4						
NOX	Oct	75	0.00	150	23.20	0.00
CO		100	0.00	100	5.83	0.00
NOX	Nov	75	22.45	150	23.34	416.08
CO		100	5.92	100	6.56	56.16
NOX	Dec	75	25.14	150	23.73	1400.41
CO		100	8.48	100	6.32	112.19

Signed on behalf of the Operator:

M Secomb

Date:

12 January 2023

[1] The result given is the maximum value obtained during the reporting period expressed in the same terms as the emission limit value.

[2] Concentrations are reported with the uncertainties at 95% confidence level of 10% for CO and 20% for Nox subtracted from the continuous prediction.

Reporting of other performance indicators for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Period	Turbine Unit	Hours of Operation	Hours of Operation at less than 70% MCR	Mass of NOx per Hour of Operation (t/h)	Mass of CO per Hour of Operation (t/h)
Quarter 1	A	0.19	N/A	N/A	N/A
	B	1028.35	16.47	0.0016	0.0011
	C	347.78	11.60	0.0029	0.0004
Quarter 2	A	0.00	N/A	N/A	N/A
	B	865.24	28.16	0.0017	0.0006
	C	361.26	10.71	0.0025	0.0004
Quarter 3	A	11.66	N/A	N/A	N/A
	B	1.39	1.38	0.0015	0.0006
	C	2.01	1.67	0.0016	0.0029
Quarter 4	A	23.61	N/A	N/A	N/A
	B	741.76	24.31	0.0017	0.0005
	C	650.35	11.04	0.0028	0.0003
Annual	A	35.45	N/A	N/A	N/A
	B	2636.74	70.32	0.0016	0.0007
	C	1361.39	35.01	0.0027	0.0003

Operator's Comments:

Signed on behalf of the Operator: M Secomb

Date: 12 January 2023

Releases to Air - Continuous Measurement Systems Invalidation Log

Operational Summary for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Emissions to Air - Invalidation Log			
Date	Period of Invalidation (hours)	Cumulative Invalidated Days in Year	Comments

Signed on behalf of the Operator: M Secomb

Date: 12 January 2023

Reporting of emissions to water (other than to sewer) for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Period	Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^{[3][5]}	Uncertainty ^[4]
Biannual 1	W1	visible oil and grease	No visible oil and grease	Any sample	No contamination	Visual check	N/A	N/A
Biannual 2	W1	visible oil and grease	No visible oil and grease	Any sample	No contamination	Visual check	N/A	N/A

Signed on behalf of the Operator: M Secomb

Date: 12 January 2023

[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

[5] A visual check is carried out daily during the site walk round (Monday-Friday). A sample date and time is only recorded for a positive result.

Form: Water 1

Releases to Air

Energy Usage Summary for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Release Point	A2	A3	All Release Points in Total
Parameter	Natural Gas	Natural Gas	Natural Gas
Fuel NCV (MJ/t)	49262.39	49480.61	49371.50
Annual fuel usage (t)	7015.92	3430.79	10446.71
Annual energy input (MJ)	345621000.69	169757459.11	515378459.80

Signed on behalf of the Operator: M Secomb

Date: 12 January 2023

Reporting of Water Usage for the period 01/01/2022 to 31/12/2022

Operator: National Grid Gas PLC

Site Location: Felindre Compressor Station

Permit/Variation no: RP3232LD

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	0.05	4.7862E-06
Total Water Usage	0.05	4.7862E-06

Operator's Comments:

Signed on behalf of the Operator: M Secomb

Date: 12 January 2023