

Permit Number: EPR/VP3736EF

Operator: The BOC Group Limited

Facility: Newport Steam Reforming Plant

Form Number: Air1 01/04/15

Reporting of emissions to air for the period from 01/01/2019 to 31/12/2019

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
Reformer Furnace Flue Gas Stack	Nitrogen Oxides as NO ₂	140mg/m ³	Spot sample	59.5mgm ⁻³	BS EN 14792 or as agreed in writing with Natural Resources Wales	08/11/2019 11:30 – 13:30	±2.4
	Carbon Monoxide	25mg/m ³	Spot sample	1.2mgm ⁻³	BS EN 15058 or as agreed in writing with Natural Resources Wales	08/11/2019 11:30 – 13:30	±2.0
Vent Gas Header Stack	Hydrogen	No limit set	Spot sample	30000 (ppm)	As agreed in writing with Natural Resources Wales	08/11/2019	
	Carbon Monoxide	No limit set	Spot sample	320 (ppm)	BS EN 15058 or as agreed in writing with Natural Resources Wales	08/11/2019	

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	Methane	No limit set	Spot sample	4500 (ppm)	TGN M22 or as agreed in writing with Natural Resources Wales	08/11/2019	

[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 Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example 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.

Signed R Warren (SHEQ Manager).....
(Authorised to sign as representative of Operator)

Date...29th January 2020.....

Permit Number: EPR/VP3736EF

Operator: The BOC Group Limited

Facility: Newport Steam Reforming Plant

Form Number: WaterUsage1 01/04/15

Reporting of Water Usage for the year 2019

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Water Usage - Mains water	3156 m ³ /year	
Water Usage – Other (please specify)		
TOTAL WATER USAGE	3156m³/year	t/year

Operator's comments: Water usage has increased slightly over previous reporting period in line with an increase in hydrogen production.

Signed R Warren (SHEQ Manager).....
(authorised to sign as representative of Operator)

Date 29th January 2020

Permit Number: EPR/VP3736EF

Operator: The BOC Group Limited

Facility: Newport Steam Reforming Plant

Form Number: Energy1 01/04/15

Reporting of Energy Usage for the year 2019

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	1560 MWh		
NG Burner fuel	5693 MWh		
TOTAL	7253 MWh		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments: Energy usage is in line with other plant performance parameters.

Signed R Warren (SHEQ Manager).....
(Authorised to sign as representative of Operator)

Date 29/01/2020.....

Permit Number: **EPR/VP3736EF**

Operator: **The BOC Group Limited**

Facility: **Newport Steam Reforming Plant**

Form Number: **Performance1 2015**

Reporting of other performance indicators for the period **01/01/2019 to 31/12/2019**

Parameter	Units
Total amount of Hydrogen produced	399.9 tonnes

Operator's comments: Plant production has increased slightly over last year's figure due to customer demand.

Signed R Warren (SHEQ Manager).....
(Authorised to sign as representative of Operator)

Date 29/01/2020...