

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 01/01/2022 to 31/12/2022

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
Reformer Furnace Flue Gas Stack	Nitrogen Oxides as NO <sub>2</sub>	140mg/m <sup>3</sup>	Spot sample	77 mgm <sup>-3</sup>	BS EN 14792 or as agreed in writing with Natural Resources Wales	28/10/2022 11:45 – 13:45	±/- 1.7
	Carbon Monoxide	25mg/m <sup>3</sup>	Spot sample	3.1 mgm <sup>-3</sup>	BS EN 15058 or as agreed in writing with Natural Resources Wales	28/10/2022 11:45 – 13:45	±/- 4.2
Vent Gas Header Stack	Hydrogen	No limit set	Spot sample	7923 (ppm)	As agreed in writing with Natural Resources Wales	28/10/2022	
	Carbon Monoxide	No limit set	Spot sample	5 (ppm)	BS EN 15058 or as agreed in writing with Natural Resources Wales	28/10/2022	

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
	Methane	No limit set	Spot sample	360 (ppm)	TGN M22 or as agreed in writing with Natural Resources Wales	28/10/2022	

[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: **S. Roberts (Regional SHEQ Advisor)**.....  
**(Authorised to sign as representative of Operator)**

Date...**27<sup>th</sup> January 2023**.....

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 2022

Water Source	Usage (m <sup>3</sup> /year)	Specific Usage (m <sup>3</sup> /unit output)
Water Usage - Mains water	3105 m <sup>3</sup> /year	
Water Usage – Other (please specify)		
<b>TOTAL WATER USAGE</b>	<b>3105 m<sup>3</sup>/year</b>	<b>t/year</b>

Operator's comments: Water usage is in line with production rate.

Signed: S. Roberts (Regional SHEQ Advisor).....  
(Authorised to sign as representative of Operator)

Date 27<sup>th</sup> January 2023

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 2022

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	1718 MWh		
NG Burner fuel	6559 MWh		
TOTAL	8277 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 S. Roberts (Regional SHEQ Advisor)..... Date 27<sup>th</sup> January 2023.....

(Authorised to sign as representative of Operator)

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 **01/01/2022 to 31/12/2022**

<b>Parameter</b>	<b>Units</b>
<b>Total amount of Hydrogen produced</b>	<b>394.6 tonnes</b>

**Operator's comments:**

Signed **S. Roberts (Regional SHEQ Advisor)**.....  
(Authorised to sign as representative of Operator)

**Date 27<sup>th</sup> January 2023...**