Regenerative Thermal Oxidiser Stack Monitoring Data – Annual Results

BOC Sydney Operations Centre Regenerative Thermal Oxidizer Annual Testing Data

BOC owns and operates a specialty gas filling and reclaim facility in Wetherill Park. This facility supplies specials mixtures of gases to industry, science and agricultural businesses. The site has a regenerative thermal oxidiser to capture and scrub residual gases ensuing all emissions from the process meet regulatory limits.

The thermal oxidizer is subject to a condition in the Environmental Protection Licence that annual testing must show the plant is processing within approved limits.

The results of each annual test starting in 2021 are included below.

Supporting documents for BOC Sydney Operations Centre Annual Emissions Test

Regenerative Thermal Oxidiser Stack Monitoring Data – Annual Results

Published: 30 November 2021 (2021 Data)
Licensee: BOC LIMITED
EPL No.: 6679

Qualifications related to limits
Samples taken as per approved methods

Reference Conditions: Dry, 273 K, 101.3 kPa
Oxygen Correction: No oxygen correction
Averaging Period: 1 hour

EPA Point ID	Sampling Date(s)	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required	Units	Method	Value	100 percentile concentration limit	Exceedance (yes/no)
EPL Point 1 Stack for the Regenerative Thermal Oxidiser	5/11/2021	15/11/2021	Moisture content	Yearly	%	TM-22	0	N/A	N/A
			Nitrogen Oxides	Yearly	mg/m^3	TM-11	4.5	250	no
			Temperature	Yearly	C	TM-2	107	N/A	N/A
			Velocity	Yearly	m/s	TM-2	10	N/A	N/A

Published: 28 October 2022
Licensee: BOC LIMITED
EPL No.: 6679

Qualifications related to limits
Samples taken as per approved methods

Reference Conditions: Dry, 273 K, 101.3 kPa
Oxygen Correction: No oxygen correction
Averaging Period: 1 hour

EPA Point ID	Sampling Date(s)	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required	Units	Method	Value	100 percentile concentration limit	Exceedance (yes/no)
EPL Point 1 Stack for the Regenerative Thermal Oxidiser	20/10/2022	26/10/2022	Moisture content	Yearly	%	TM-22	0.29	N/A	N/A
			Nitrogen Oxides	Yearly	mg/m^3	TM-11	8.92	250	No
			Temperature	Yearly	C	TM-2	102.5	N/A	N/A
			Velocity	Yearly	m/s	TM-2	8.9	N/A	N/A

Regenerative Thermal Oxidiser Stack Monitoring Data – Annual Results

Published: 20 December 2023
Licensee: BOC LIMITED
EPL No.: 6679

Qualifications related to limits
Samples taken as per approved methods

Reference Conditions: Dry, 273 K, 101.3 kPa
Oxygen Correction: 20.68 with No oxygen correction
Sampling Duration: 30 minutes

EPA Point ID	Sampling Date(s)	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required	Units	Method	Value	100 percentile concentration limit	Exceedance (yes/no)
EPL Point 1 Stack for the Regenerative Thermal Oxidiser	07/11/2023	11/11/2023	Moisture content	Yearly	%	TM-22	0.21	N/A	N/A
			Nitrogen Oxides	Yearly	mg/m^3	TM-11	10.86	250	No exceedance Compliant Result
			Temperature	Yearly	C	TM-2	106.73	N/A	N/A
			Velocity	Yearly	m/s	TM-2	9.34	N/A	N/A

Published: 16 October 2024
Licensee: BOC LIMITED
EPL No.: 6679

Qualifications related to limits
Samples taken as per approved methods

Reference Conditions: Dry, 273 K, 101.3 kPa
Oxygen Correction: 20.51 with No oxygen correction
Sampling Duration: 30 minutes

EPA Point ID	Sampling Date(s)	Date Results Received	Pollutant	Measurement Period & Monitoring Frequency Required	Units	Method	Value	100 percentile concentration limit	Exceedance (yes/no)
EPL Point 1 Stack for the Regenerative Thermal Oxidiser	15/10/2024	16/10/2024	Moisture content	Yearly	%	TM-22	0.034	N/A	N/A
			Nitrogen Oxides	Yearly	mg/m^3	TM-11	4.4	250	No exceedance Compliant Result
			Temperature	Yearly	C	TM-2	101.87	N/A	N/A
			Velocity	Yearly	m/s	TM-2	10	N/A	N/A

Regenerative Thermal Oxidiser Stack Monitoring Data – Annual Results

Conclusion: BOC are operating within EPL Air Concentration licence limits

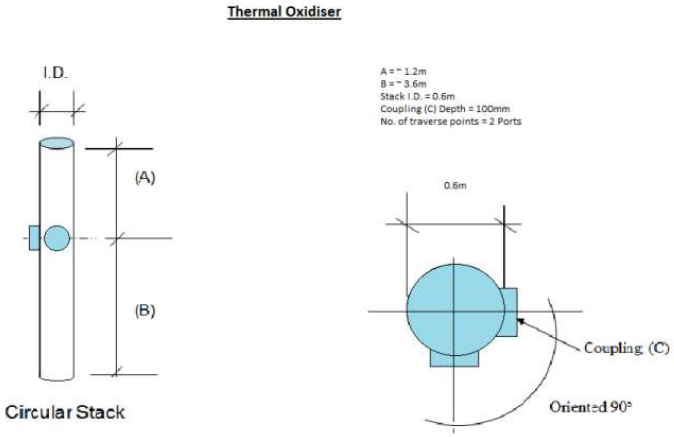

Figure 4-1: BOC RTO exhaust stack schematic diagram

Regenerative Thermal Oxidiser Sample Points

Regenerative Thermal Oxidiser Stack Monitoring Data – Annual Results

Regenerative Thermal Oxidiser (Abatement) Exhaust Location