

Dr Patience Gwaze Air Quality Management Department of Forestry, Fisheries and Environment 473 Steve Biko Road 2350 Date: 30 May 2023

Enquiries: 017 827 827 8714 Thabiso Mpongo

Ref: CAM-ENV/ANNUAL/2024-EM001

Dear Dr. Patience Gwaze

## **CAMDEN POWER STATION'S ANNUAL EMISSIONS REPORT**

This serves as the annual report required in terms of Section 7.6 (Routine reporting and record keeping) in Camden Power Station's Atmospheric Emission License (Msukaligwa/Eskom H SOC Ltd/CPS/0012/2019/F03). The emissions are for Eskom's 2023/2024 financial year which is from 01 April 2023 to 31 March 2024. Verified emissions of particulates, SO<sub>2</sub>, NO<sub>x</sub> (as NO<sub>2</sub>) and the greenhouse gases CO<sub>2</sub> and N<sub>2</sub>O are also included.

Category of Listed	Sub-Category of	Listed Activity	Description of the
Activity	Listed Activity	Name	Listed Activity
Category 1	Sub-category 1.1	Solid Fuel	Solid fuel
		Combustion	combustion
		Installations	installation used
			primarily for steam
			raising or electricity
			generation
Category 2	Sub-category 2.4	Storage and	Storage and
		handling of	Handling of
		Petroleum Products	Petroleum Products.

Category 5	Sub-category 5.1	Storage and	Storage and	
		handling of ore and	handling of ore and	
		coal	coal not situated on	
			premises of mine or	
			works as defined in	
			the Mines Health	
			and Safety Act	
			29/1996.	

## **Pollutant Emission Trends and Greenhouse Gas Emissions:**

Particulate emissions are measured at all power stations with opacity monitors, which are correlated to obtain emission concentrations. Gaseous emissions ( $CO_2$ ,  $N_2O$ ,  $SO_2$  and  $NO_x$ ) are calculated from mass balances for  $SO_2$  and  $CO_2$ , from station-specific emission factors for  $NO_x$  and from a generic emission factor for  $N_2O$ .

Continuous emission monitors are installed on all four stacks and Eskom will report on the gaseous emission measurements in the annual reports once we are satisfied that the continuous emission measurements are at least as accurate as the calculations.

Table 1: General oversight of emissions at Camden Power Station 2023/2024

Power Station	Coal-fired emissions (tons/annum)	Fuel-oil emissions (tons/annum)	Total (tons/annum)
Camden	<b>CO₂</b> : 9 307 739	CO₂: 181 618	<b>CO₂</b> : 9 489 357
	<b>N₂O:</b> 48.134	N₂O: not calculated	<b>N₂O:</b> 48.134
	<b>PM:</b> 2 854.19	PM: not calculated	<b>PM</b> : 2 854.19
	<b>SO₂</b> : 48 017	<b>SO</b> ₂: 2 416.75	<b>SO</b> ₂: 50 433.75
	NO <sub>x</sub> : 38 986	NO <sub>x</sub> : not calculated	NO <sub>x</sub> : 38 986

Table 2: Pollutant Emission Trends for 2023/2024

Month	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	CO <sub>2</sub> (tons)	N <sub>2</sub> O (tons)
April 2023	254	4 726	3 646	882 661	4.55
May 2023	269	3 424	2 718	654 631	3.34
June 2023	299	6 355	4 663	1 123 357	5.80
July 2023	274	4 642	3 554	848 572	4.40
August 2023	255	3 779	3 262	780 687	4.05
September 2023	285	4 108	3 441	822 310	4.24
October 2023	198	3 382	2 775	653 060	3.39
November 2023	229	3 463	3 084	732 066	3.78
December 2023	284	4 374	3 594	849 410	4.39
January 2024	231	3 896	3 330	782 828	4.09
February 2024	140	4 089	3 508	839 074	4.36
March 2024	137	1 779	1 412	339 083	1.74

Table 2 above provides information on the monthly emissions for PM,  $SO_2$ ,  $NO_x$ ,  $CO_2$  and  $N_2O$ . This will be further illustrated graphically below:

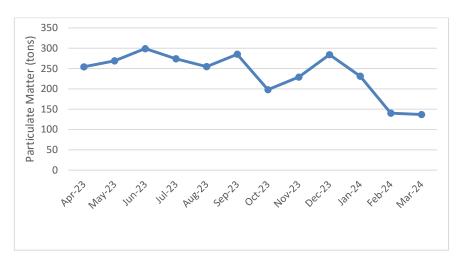


Figure 1: Monthly Particulate Emissions in tons from Camden Power Station 2023/2024

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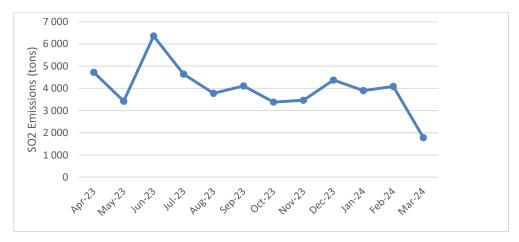


Figure 2: Monthly SO<sub>2</sub> Emissions in tons from Camden Power Station 2023/2024

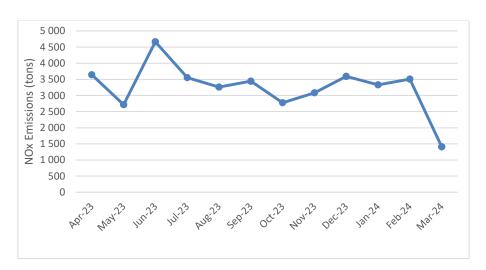


Figure 3: Monthly NO<sub>x</sub> Emissions in tons for Camden Power Station 2023/2024

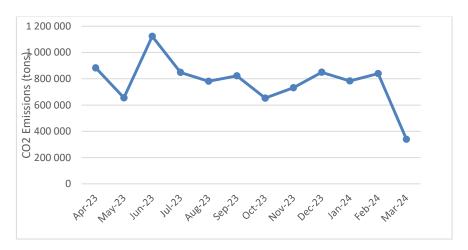


Figure 4: Monthly CO<sub>2</sub> Emissions in tons from Camden Power Station 2023/2024



Figure 5: Monthly N₂O Emissions in tons from Camden Power Station 2023/2024

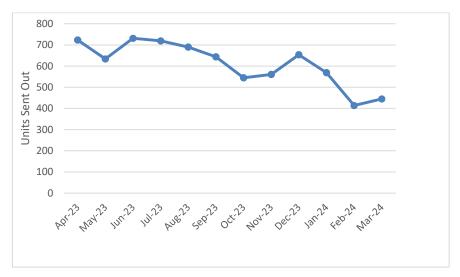


Figure 6: Monthly Energy sent out in GWh at Camden Power Station 2023/2024

# Monitoring data availability:

	Stack 1	Stack 2	Stack 3	Stack 4
PM	100 %	100 %	100 %	100 %
SO <sub>2</sub>	99 %	97 %	94 %	94 %
NOx	99 %	97 %	94 %	94 %

## **Compliance Audit Reports:**

Camden Power Station was last audited in the last financial year (March 2023) the upcoming Audit is planned for June 2024. Procurement process to appoint an Accredited Auditor is in progress.

## **Major Upgrade Projects:**

FFP Bag Replacement Project for Units 2,3,4 & 5 completed in 2023/24, Units 1,6,7 & 8 to be completed in 2024/25

#### **Greenhouse Gas Emissions:**

Greenhouse gas emissions (CO<sub>2</sub> and N<sub>2</sub>O) are included in Table 2 as well as Figures 4 and 5 above.

## **Complaints Register:**

No complaints were received during the reporting period, thus no action or mitigation measures implemented

## **Offset Program**

Annual offset program was submitted on the 27 March 2024 (see attached Document)

## **National Atmospheric Emissions Inventory System**

In terms of the pollutants and greenhouse emissions, Camden Power Station has reported manually on the NAEIS portal for 2023.

## Status of Stratification, Parallel and Correlation test.

Parallel and Correlation tests status, refer to letter *Delays in execution of particulate matters* correlation and gas monitor parrel verification/QAL2 tests, dated 15 May 2024

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Hoping the above will meet your satisfaction.

Yours sincerely

Justice Bore

**GENERAL MANAGER: CAMDEN POWER STATION**