

Nkangala District Municipality 2A Walter Sisulu Middelburg 1050 Date: 2025.06.05

Inquiries: Mariam Joseph Tel +27 13 297 9828 Fax + 27 86 661 7663

Dear Mrs Simelane

#### ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF APRIL 2025

This serves as the monthly report required in terms of Section 6 in Arnot Power Station's Atmospheric Emission License. The emissions are for April 2025, verified emissions of particulates;  $SO_2$  and  $NO_x$  (as  $NO_2$ ) are also included.

#### **Raw Materials and Products**

Table1: Quantity of Raw Materials and Products used/produced for the Month of April 2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of April 2025
1 Toddets data	Coal	Tons/month	1 050 330	320 896.56
	Fuel Oil	Tons/month	10 000	7225.19
	Product/ By-		Maximum	Production Rate in
	•			
	Product Name	Unit	Production Capacity	Month of April
Draduction Dates	Product Name	Unit	Production Capacity Permitted (Quantity)	Month of April 2025
Production Rates	Product Name  Energy	<b>Unit</b> GWh	, ,	•
Production Rates			Permitted (Quantity)	2025

#### **Abatement Technology**

Table 2.1 (a) Abatement Equipment Efficiency Control Technology for month of April 2025

Associated Unit/Stack	Technology Type	Actual Efficiency (%) for the month of April 2025
North Stack	Fabric Filter Bags	99.3%
South Stack	Fabric Filter Bags	99.4%

Table 2.1 (b) Abatement Equipment Utilisation (%) for the month of April 2025

Associated Unit/Stack	Technology Type	Utilisation April 2025
North	Fabric Filter Plant (FFP)	100 %
South	Fabric Filter Plant (FFP)	100 %

Table 2.1 (c) Monitor Reliability (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO
Stack 1	82.8	97.6	97.4
Stack 2	99.3	94.0	96.8

#### **Energy Source Characteristics**

Table 3: Energy Source Material Characteristics for the month of April 2025

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.530
Ash Content	17 to < 40 (%)	21.26

Table 4 Operating days in compliance to PM AEL Limit – April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
North	28	2	0	0	2	25.9
South	29	1	0	0	1	31.5
SUM	57	3	0	0	3	

Table 5: Operating days in compliance to NOx AEL Limit –April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
North	30	0	0	0	0	514.9
South	30	0	0	0	0	631.3
SUM	60	0	0	0	0	

Table 6: Operating days in compliance to Sox AEL Limit -April 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm³)
North	30	0	0	0	0	1077.5
South	30	0	0	0	0	1291.1
SUM	60	0	0	0	0	

#### **Emissions Reporting**

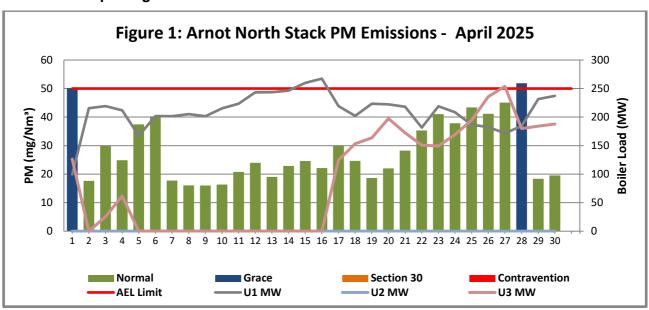


Figure 1: PM emissions (daily averages) for the month of April 2025 against the emission limit for the North Stack

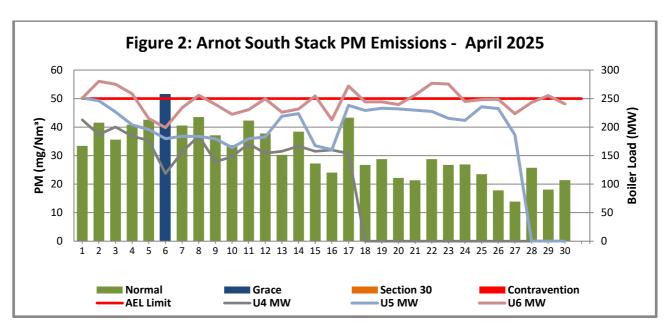


Figure 2: PM emissions (daily averages) for the month of April 2025 against emission limit for the South Stack

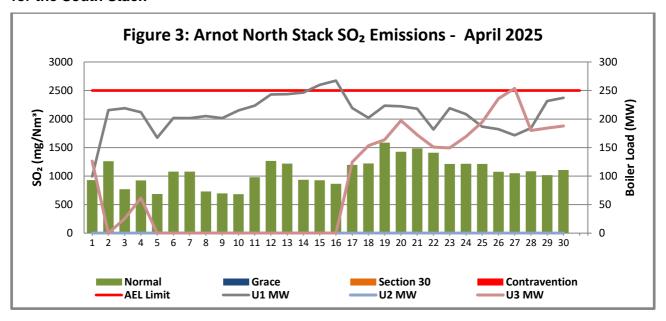


Figure 3: SO<sub>2</sub> emissions (daily averages) for the month of April 2025 against emission limit for the North Stack

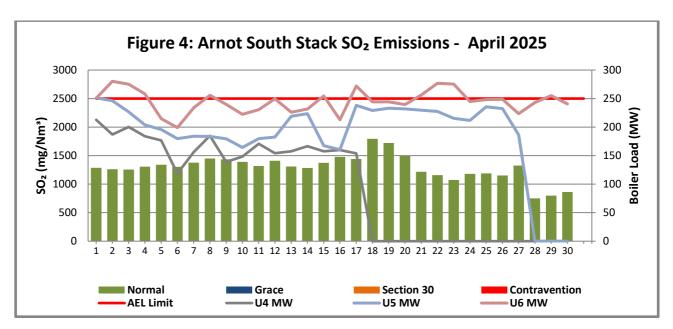


Figure 4: SO<sub>2</sub> emissions (daily averages) for the month of April 2025 against emission limit for the South Stack

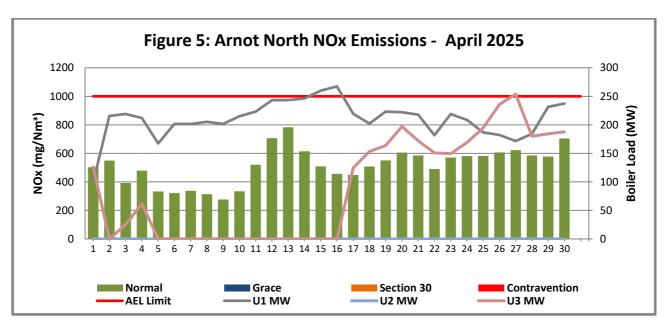


Figure 5: NO<sub>2</sub> emissions (daily averages) for the month of April 2025 against emission limit for the North Stack

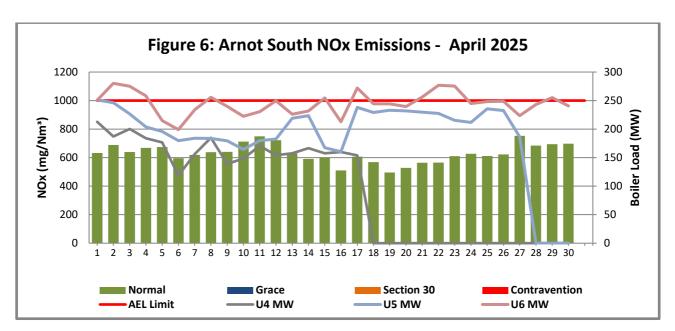


Figure 6: NO<sub>2</sub> emissions (daily averages) for the month of April 2025 against emission limit for the South Stack

Table 7: Monthly tonnages for the month of April 2025

Unit	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>2</sub> (tons)
Total Tons			
(North &	117.9	5162	2461
South Stack)			

Table 8: Each unit and respective days operating under normal operation, days in grace period, and section 30 days respectively.

Stack	Days operating under normal operation	Days operating in grace period	Days operating under \$30
1	28	2	0
2	30	0	0
3	30	0	0
4	29	1	0
5	30	0	0
6	30	0	0

#### Light up information

Continuous reporting is being done even during start-ups emissions were not affected.

#### **Complaints Register**

Table 9. Complaints for the month of April 2025

No Noise, dust and offensive odors complaints registered in the month of April 2025.

Source Code/ Name		Calculation of impacts/ citilssions	J	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
None	0	0	0	0	0

2025

**General** 

O2 analyzer struck by lightning. 8,13% constant reading replaced with 8.69% avg from QAL 2

report. Recovery plan for replacement delayed. Delivery by 19 May 2025.

On 1-Apr-25 grace period is due to Unit 1 FFP leaking bag change.

On 28-Apr-25 grace period is due to Unit 1 FFP leaking bag change.

On 6-Apr-25 grace period is due to Unit 4 FFP leaking bag change.

Opacity reading stuck at 72.36%. Reading removed from data for period 13-Apr-2025 01:30 till 14-

Date: 2025 06 30

Date: 1-07-2025

Apr-25 07:40:00. Removed from data.

The rest of the information demonstrating compliance with the emission license conditions is

supplied in the annual emission reports sent to your office.

Hoping the above will meet your satisfaction.

Compiled by

awrence Machebe

**ENVIRONMENTAL OFFICER: ARNOT POWER STATION** 

Verified by

Jan-Louis Human

SYSTEM ENGINEER: ARNOT POWER STATION

Supported by: Date: 2025.07.01

Rofhiwa Tshikovha

SENIOR ENVIRONMENTAL ADVISOR: ARNOT POWER STATION

Yours sincerely

Marcus Nemadodzi Date: 01 July 2025

**GENERAL MANAGER: ARNOT POWER STATION**