

Air Quality Officer
DEDET
Private bag X11215
NELSPRUIT
1200

Date:
11 October 2024

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

Dear Mrs. N Simelane

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

This serves as the monthly report required in terms of Section 6 in Arnot Power Station's Atmospheric Emission License. The emissions are for August 2024, verified emissions of particulates; SO₂ and NO_x (as NO₂) are also included.

Raw Materials and Products

Table1: Quantity of Raw Materials and Products used/produced for the Month of August 2024

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of August 2024
	Coal	Tons/month	1 050 330	408 323.75
	Fuel Oil	Tons/month	10 000	2291.71
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of August 2024
	Energy	GWh	1 785 600	749.412
	Ash	Tons/month	421 000	99 304

Generation Division
Arnot Power Station
N4 Nelspruit Road
Private Bag X2 Rietkuil 1097 SA
Tel +27 13 297 9111 Fax +27 13 297 9142 www.eskom.co.za

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

Abatement Technology

Table 2.1 (a) Abatement Equipment Efficiency Control Technology for month of August 2024

Associated Unit/Stack	Technology Type	Actual Efficiency (%) for the month of August 2024
North Stack	Fabric Filter Bags	99.8%
South Stack	Fabric Filter Bags	99.8%

Table 2.1 (b) Abatement Equipment Utilisation (%) for the month of August 2024

Associated Unit/Stack	Technology Type	Utilisation August 2024
North	<i>Fabric Filter Plant (FFP)</i>	100 %
South	<i>Fabric Filter Plant (FFP)</i>	100 %

Table 2.1 (c) Monitor Reliability (%)

Associated Unit/Stack	PM	SO ₂	NO
Stack 1	100	84.3	84.4
Stack 2	98.8	94.6	99.7

Energy Source Characteristics

Table 3: Energy Source Material Characteristics for the month of August 2024

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.597
Ash Content	17 to < 40 (%)	24.34

Table 4 Operating days in compliance to PM AEL Limit – August 2024

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm³)
North	31	0	0	0	0	31.4
South	31	0	0	0	0	31.5
SUM	62	0	0	0	0	

Table 5: Operating days in compliance to NOx AEL Limit – August 2024

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm ³)
North	31	0	0	0	0	640.5
South	31	0	0	0	0	670.0
SUM	62	0	0	0	0	

Table 6: Operating days in compliance to Sox AEL Limit –August 2024

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm ³)
North	31	0	0	0	0	1 038.3
South	31	0	0	0	0	1 206.7
SUM	62	0	0	0	0	

Emissions Reporting

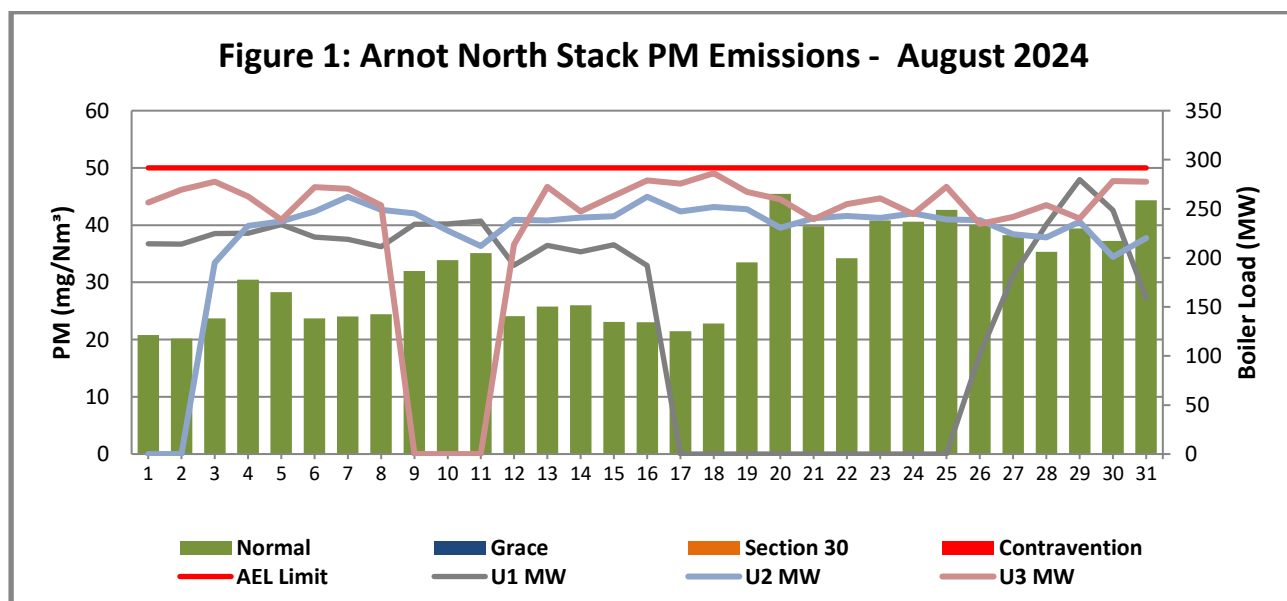


Figure 1: PM emissions (daily averages) for the month of August 2024 against the emission limit for the North Stack

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

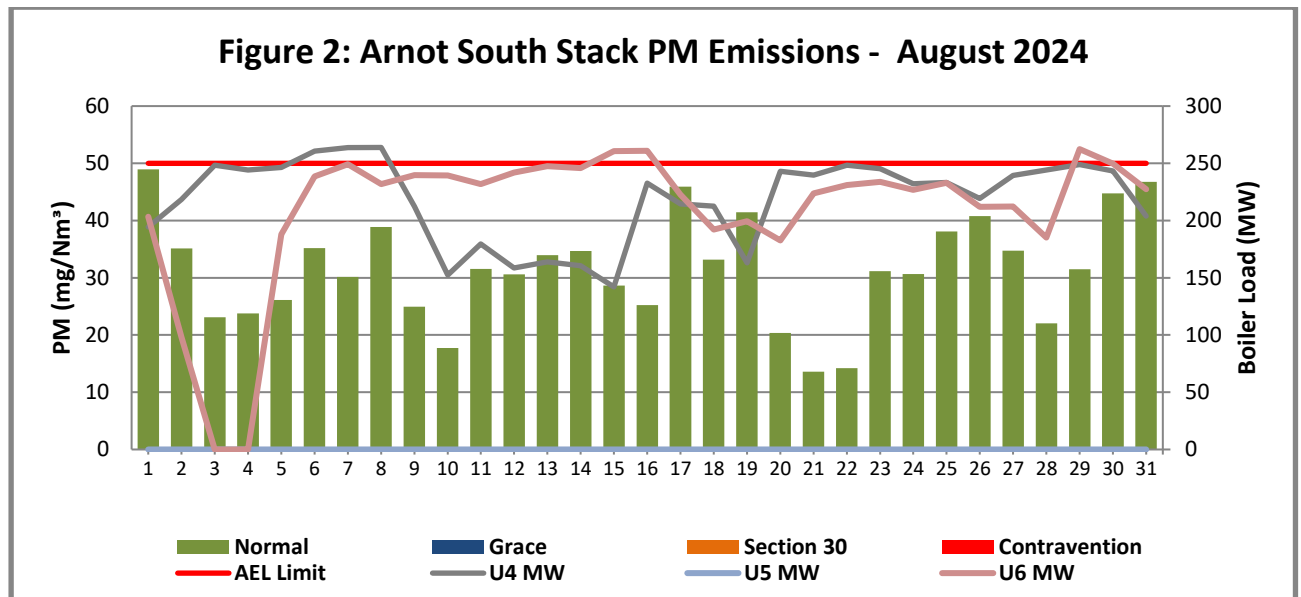


Figure 2: PM emissions (daily averages) for the month of August 2024 against emission limit for the South Stack

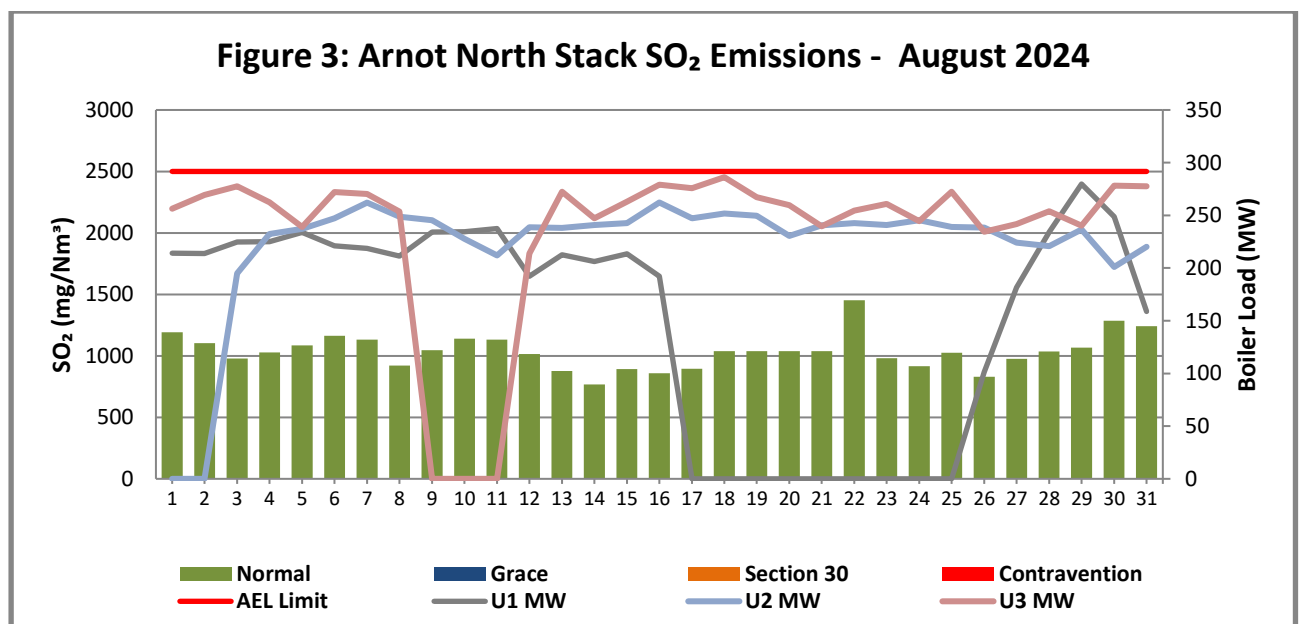


Figure 3: SO₂ emissions (daily averages) for the month of August 2024 against emission limit for the North Stack

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

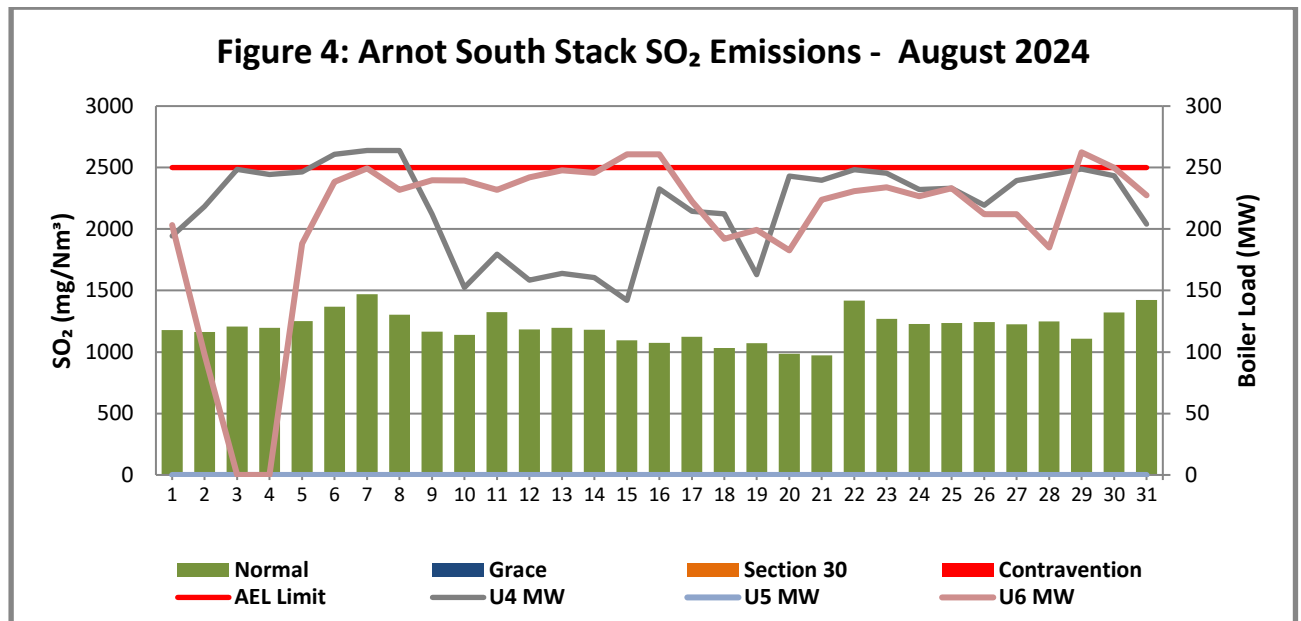


Figure 4: SO₂ emissions (daily averages) for the month of August 2024 against emission limit for the South Stack

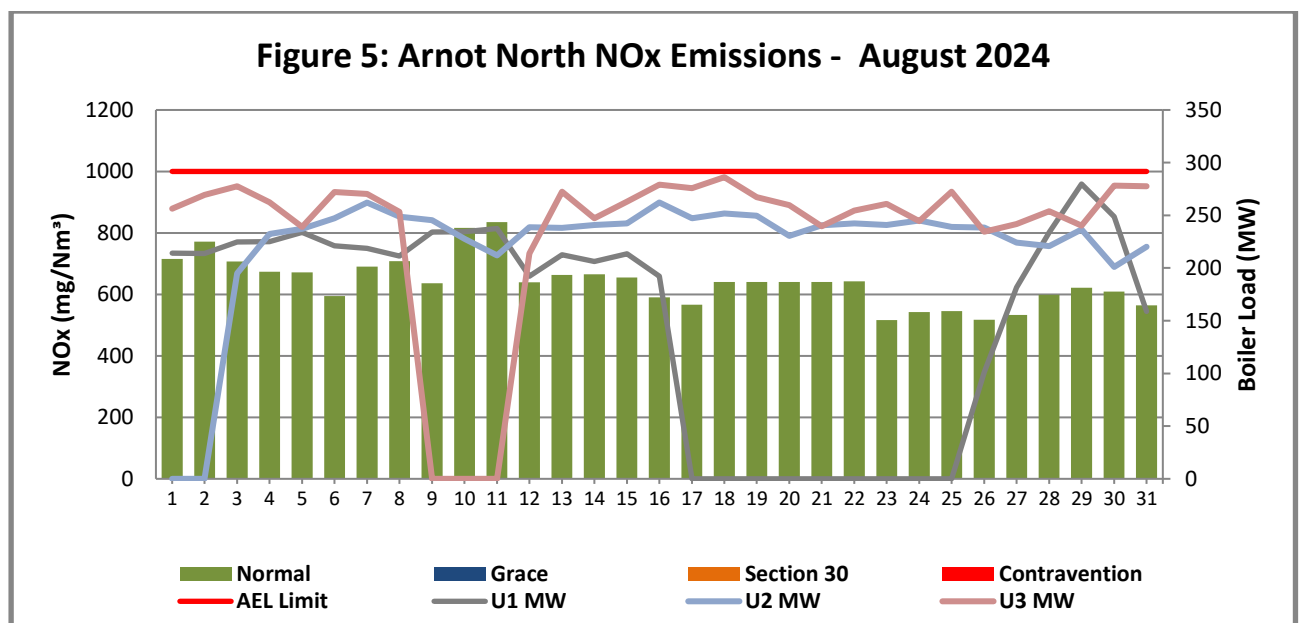


Figure 5: NO₂ emissions (daily averages) for the month of August 2024 against emission limit for the North Stack

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

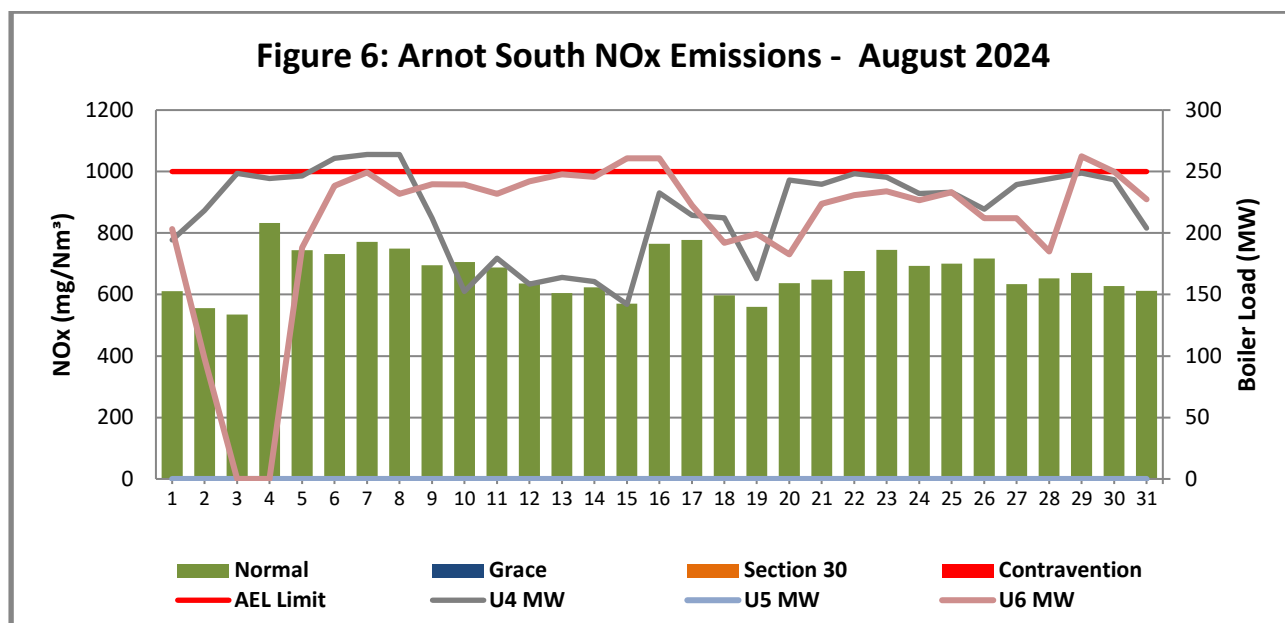


Figure 6: NO₂ emissions (daily averages) for the month of August 2024 against emission limit for the South Stack

Table 4: Monthly tonnages for the month of August 2024

Unit	PM (tons)	SO ₂ (tons)	NO ₂ (tons)
Total Tons (North & South Stack)	142.4	5 483	3 247

Table 5: Each unit and respective days operating under normal operation, days in grace period, and section 30 days respectively.

Unit	Days operating under normal operation	Days operating in grace period	Days operating under S 30
1	31	0	0
2	31	0	0
3	31	0	0
4	31	0	0
5	31	0	0
6	31	0	0

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 2024

Light up information

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

Complaints Register

Table 6. Complaints for the month of August 2024

No Noise, dust and offensive odors complaints registered in the month of August 2024.

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident and dispersion modelling of pollutants, where applicable	Dispersion modeling of pollutants where applicable	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
None	0	0	0	0	0

General

Note:

Hoping the above will meet your satisfaction.

Compiled by

Date:



2024 10 11

Lawrence Machebe

ENVIRONMENTAL OFFICER: ARNOT POWER STATION

Verified by

Date:



15-10-2024

Jan-Louis Human

SYSTEM ENGINEER: ARNOT POWER STATION

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST
2024**

Supported by:

Date: 11 October 2024



Rofhiwa Tshikovha

SENIOR ENVIRONMENTAL ADVISOR: ARNOT POWER STATION

Yours sincerely



Marcus Nemadodzi

Date: 21-10-2024

GENERAL MANAGER: ARNOT POWER STATION