

Air Quality Officer
DEDET
Private bag X11215
NELSPRUIT
1200

Date:
2022.03.15

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Dear Mr. Mahlangu

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF FEBRUARY 2021

This serves as the monthly report required in terms of Section 6 in Arnot Power Station's Atmospheric Emission License. The emissions are for the month of February 2022, 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 February 2022

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of February
	Coal	Tons/month	1 050 330	309 627.5
	Fuel Oil	Tons/month	10 000	3282.99
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of February 2021
	Energy	GWh	1 785 600	571.34
	Ash	Tons/month	421 000	74 680.95

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Abatement Technology

Table 2: Abatement Equipment Control Technology for month of February 2022

Associated Unit/Stack	Technology Type	Actual Efficiency (%) for the month of February 2022
North Stack	Fabric Filter Bags	99.8%
South Stack	Fabric Filter Bags	99.9%

Table 2.1 Abatement Equipment Utilisation (%) for the month of February 2021

Associated Unit/Stack	Technology Type	Utilisation February 2022
North	<i>Fabric Filter Plant (FFP)</i>	100%
South	<i>Fabric Filter Plant (FFP)</i>	100%

Energy Source Characteristics

Table 3: Energy Source Material Characteristics for the month of February 2022

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.608
Ash Content	17 to < 40 (%)	24.12

Table 4 Operating days in compliance to PM AEL Limit –February 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
North	28	0	0	0	0	33.3
South	28	0	0	0	0	32.4
SUM	56	0	0	0	0	

Table 5 Operating days in compliance to NOx AEL Limit – February 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm ³)
North	28	0	0	0	0	513.6
South	28	0	0	0	0	780.3
SUM	56	0	0	0	0	

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Table 6: Operating days in compliance to SOx AEL Limit –February 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm ³)
North	28	0	0	0	0	1 264.8
South	28	0	0	0	0	1 213.8
SUM	56	0	0	0	0	

Emissions Reporting

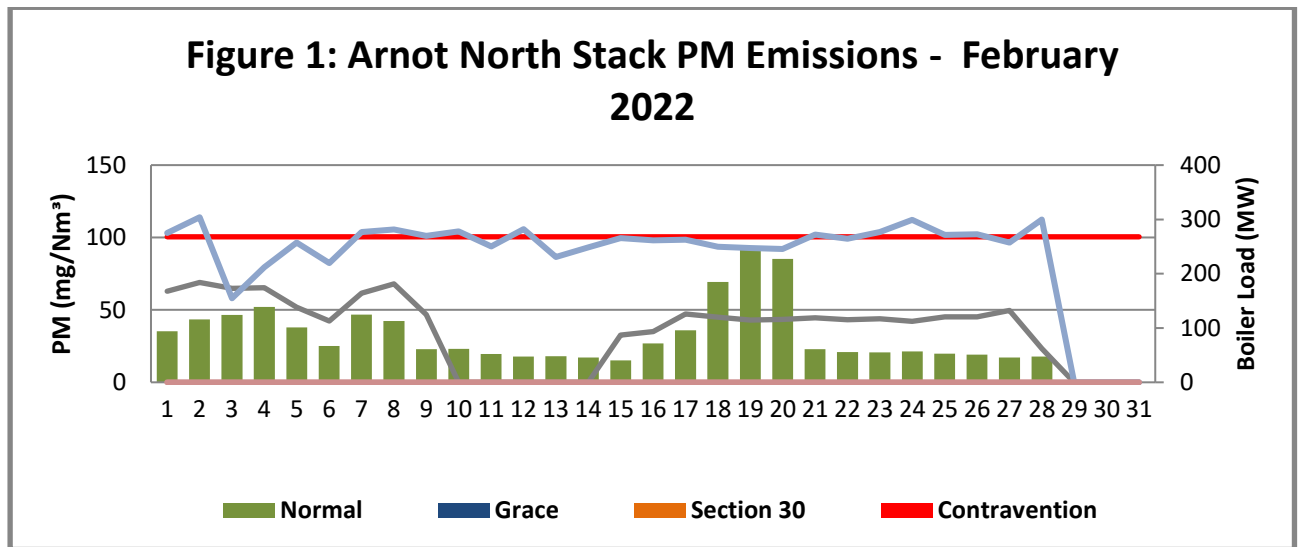


Figure 1: PM emissions (daily averages) for the month of February 2022 against emission limit for the North Stack

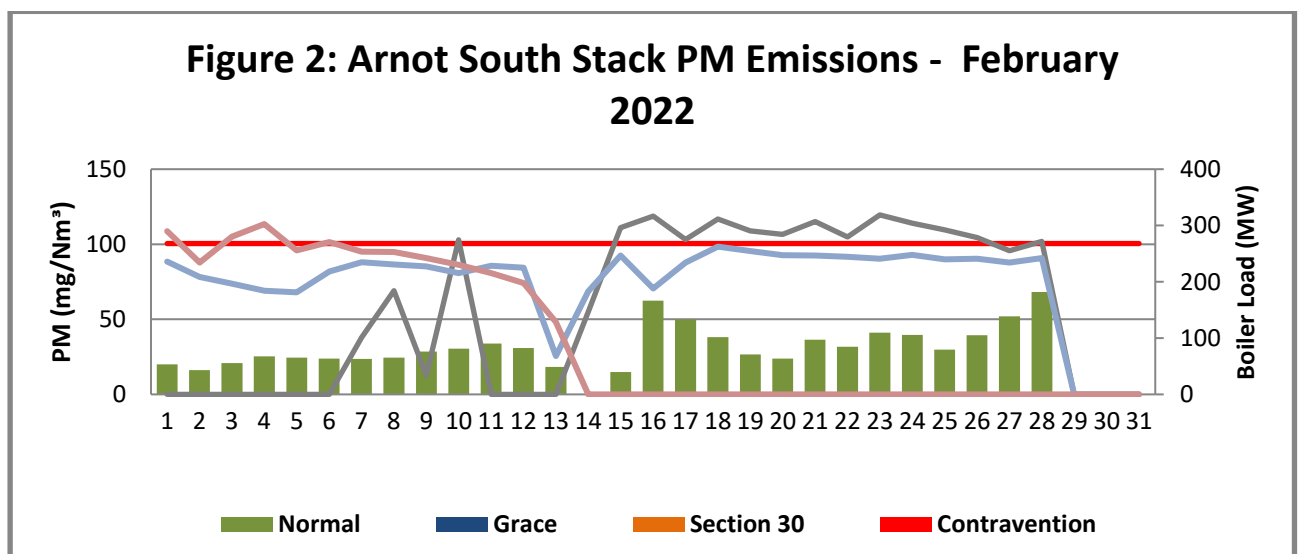


Figure 2: PM emissions (daily averages) for the month of February 2022 against emission limit for the South Stack

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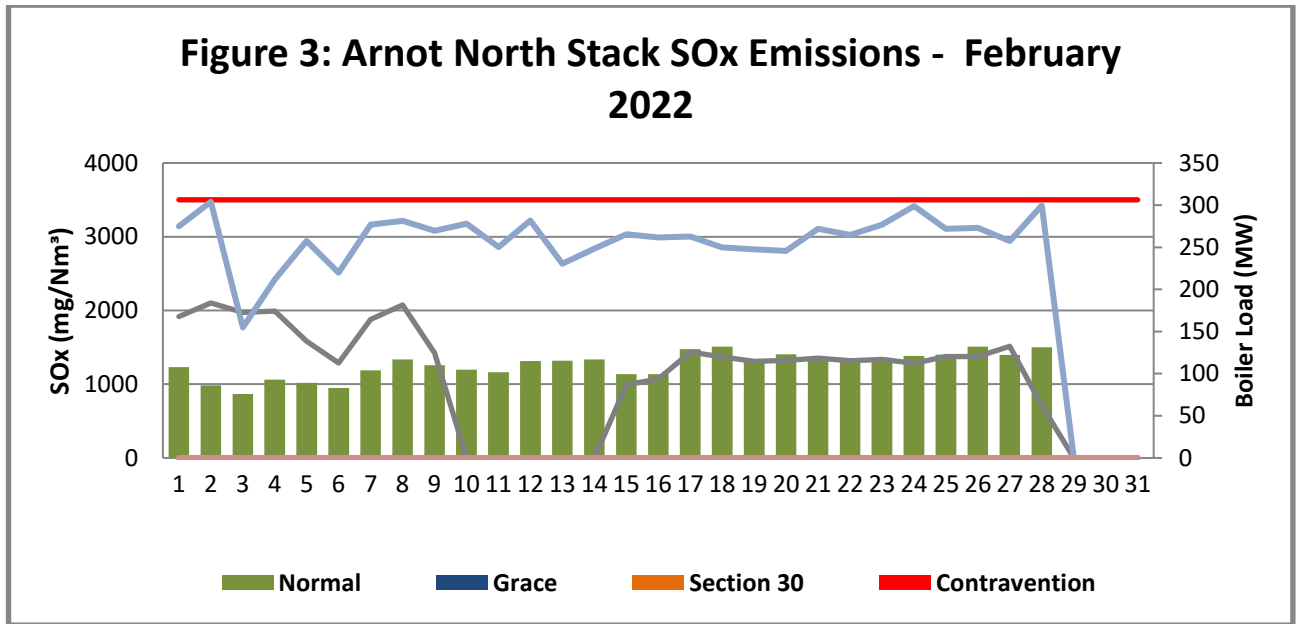


Figure 3: SO₂ emissions (daily averages) for the month of February 2022 against emission limit for the North Stack

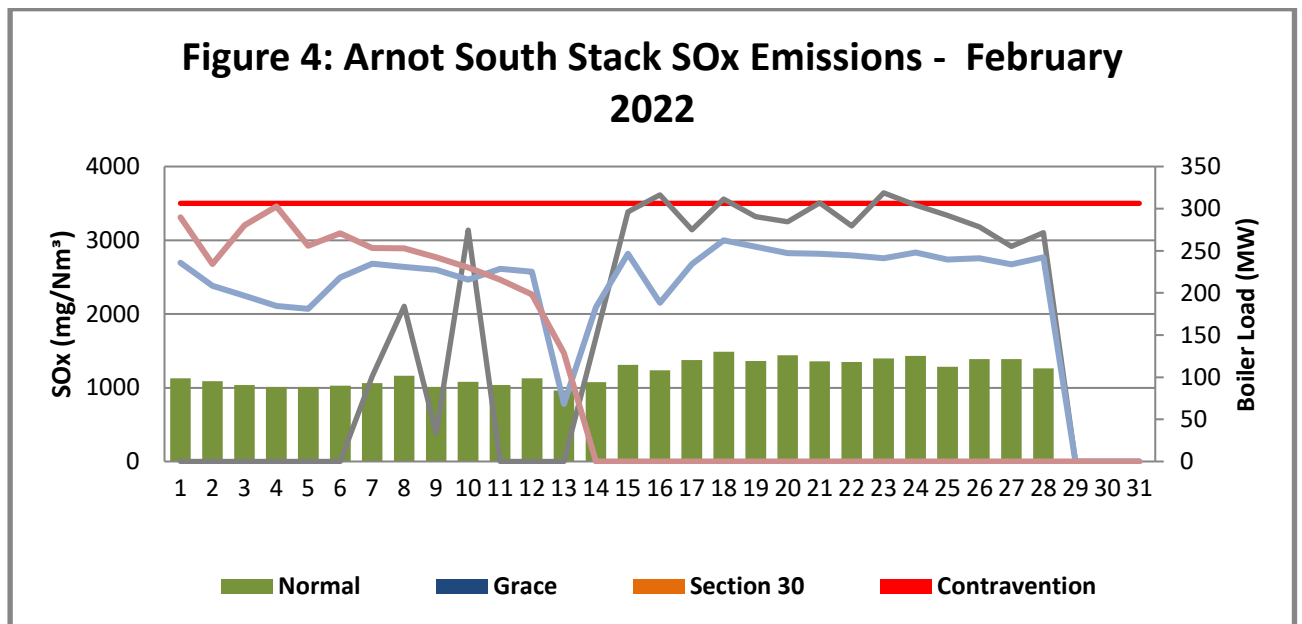


Figure 4: SO₂ emissions (daily averages) for the month of February -2021 against emission limit for the South Stack

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF FEBRUARY 2022

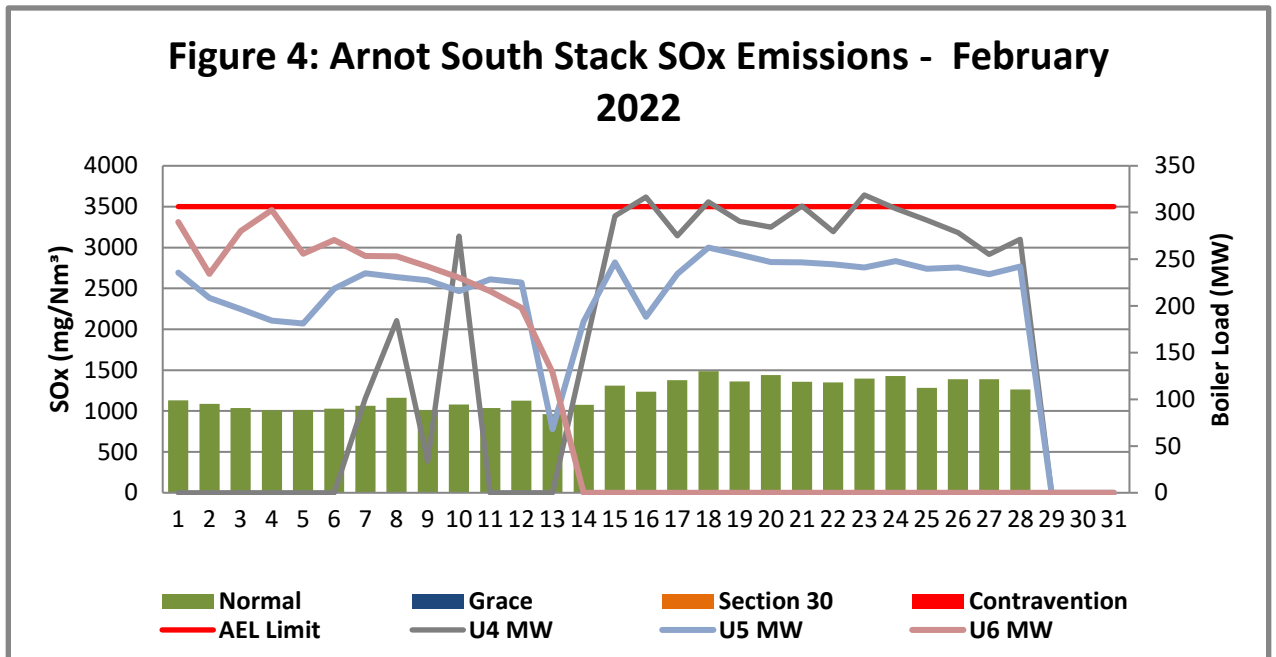


Figure 5: NO₂ emissions (daily averages) for the month of February -2021 against emission limit for the North Stack

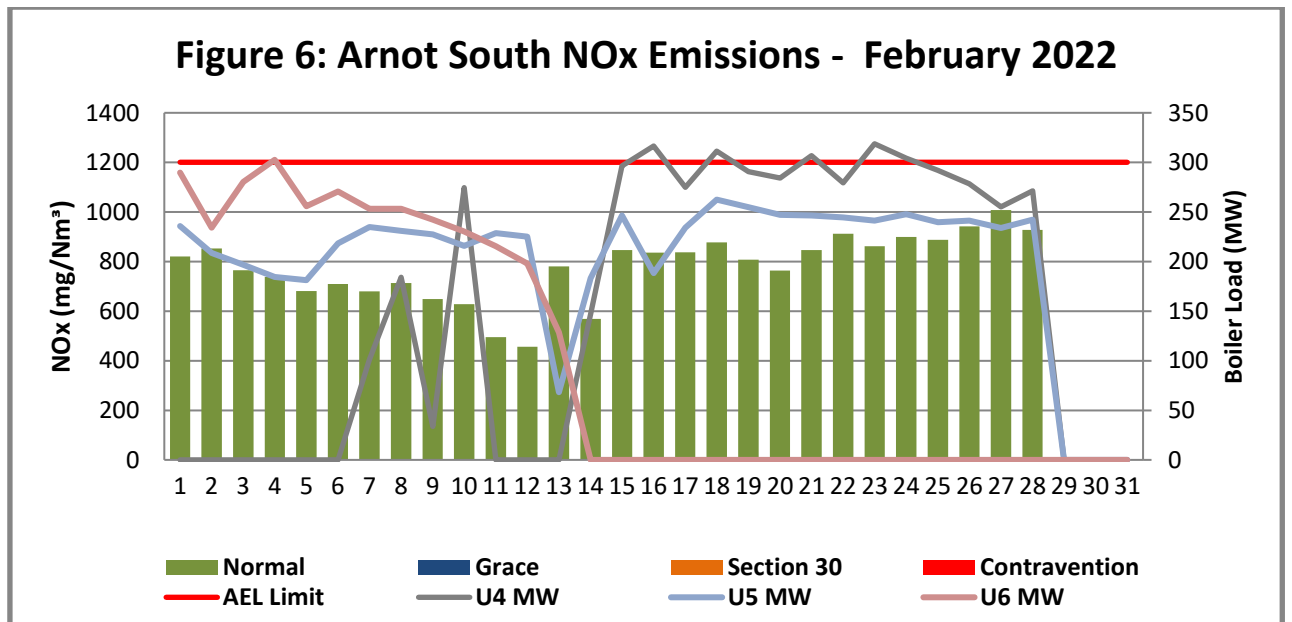


Figure 6: NO₂ emissions (daily averages) for the month of February -2021 against emission limit for the South Stack

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Table 4: Monthly tonnages for the month of February 2022

Unit	PM (tons)	SO ₂ (tons)	NO ₂ (tons)
Total Tons (North & South Stack)	76.4	2934.4	1493.7

Table 5: Monitor Availability

Unit	PM (%)	SO ₂ (%)	NO ₂ (%)
North Stack	100.0	98.8	99.7
South Stack	100.0	99.4	95.5

Table 6: 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	28	0	0
2	28	0	0
3	28	0	0
4	28	0	0
5	28	0	0
6	28	0	0

Light up information

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

Complaints Register

Table 7. Complaints for the month of February 2022

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident	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

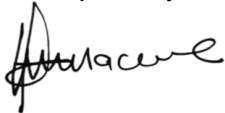
The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission reports sent to your office.

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF
FEBRUARY 2022**

Please note North is reporting on an expired curve still, Data will be back fitted and communicated to your office in case there might be changes Notification has been send to the licensing Officer.

Hoping the above will meet your satisfaction.

Compiled by



Date:2022.03.15

Lawrence Machebe

ENVIRONMENTAL OFFICER: ARNOT

Verified by

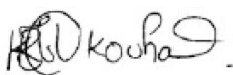


Date: 2022.03.16

Nomathemba Mpulo

SENIOR TECHNOLOGIST: ARNOT

Supported by



Date: 2022.03.17

Rofhiwa Tshikovha

SENIOR ENVIRONMENTAL ADVISOR: ARNOT

Yours sincerely



22 March 2022

Marcus Nemadodzi

GENERAL MANAGER: ARNOT POWER STATION