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Date:
20 June 2022

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Dear Mr. Mahlangu

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

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 April 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 April 2022

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of April 2022
	Coal	Tons/month	1 050 330	295 852 .24
	Fuel Oil	Tons/month	10 000	3 659.92
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of April 2022
	Energy	GWh	1 785 600	561699
	Ash	Tons/month	421 000	71 093

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Abatement Technology

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

Associated Unit/Stack	Technology Type	Actual Utilisation (%) for the month of April 2022
North Stack	Fabric Filter Bags	100%
South Stack	Fabric Filter Bags	100%

Table 2.1 Efficiency of Fabric Filter Bags for Month of April 2022

Associated Unit/Stack	Technology Type	Actual Efficiency (%) for the month of April 2022
North Stack	Fabric Filter Bags	99.8%
South Stack	Fabric Filter Bags	99.85

Energy Source Characteristics

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

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.668
Ash Content	17 to < 40 (%)	24.03

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
North	30	0	0	0	0	13.6
South	30	0	0	0	0	38.4
SUM	60	0	0	0	0	

Table 5 Operating days in compliance to SO_x AEL Limit – April 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO _x (mg/Nm ³)
North	30	0	0	0	0	1226.1
South	30	0	0	0	0	
SUM	60	0	0	0	0	

Table 6: Operating days in compliance to No_x AEL Limit –April 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
North	30	0	0	0	0	534.8
South	30	0	0	0	0	
SUM	60	0	0	0	0	

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Emissions Reporting

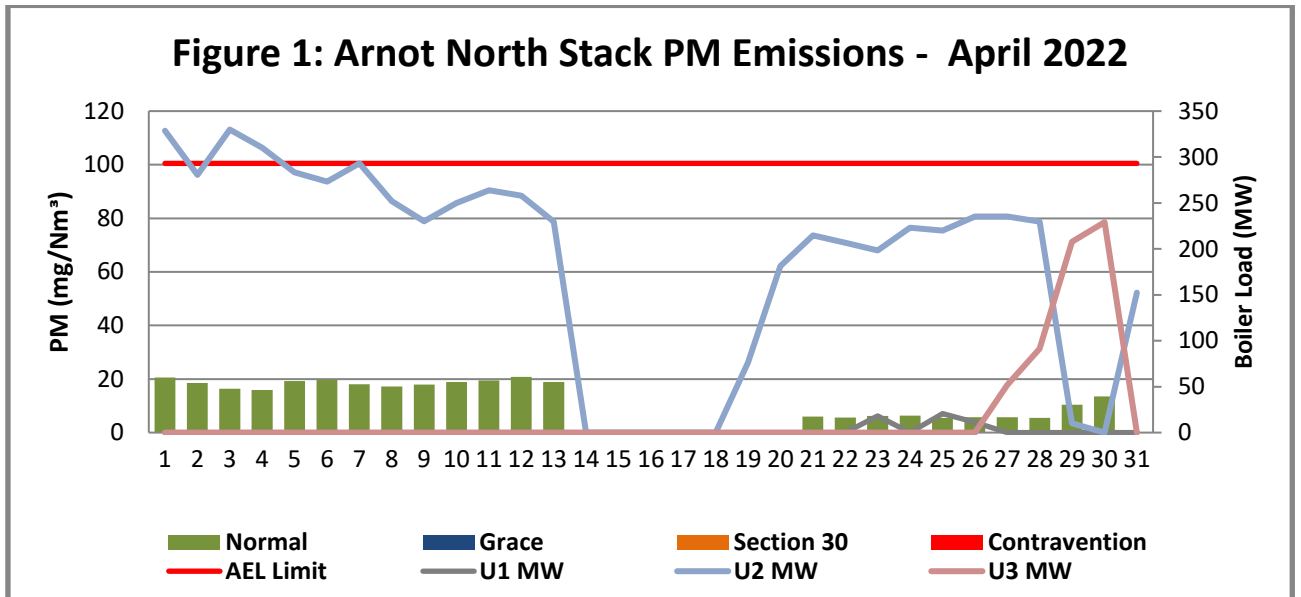


Figure 1: PM emissions (daily averages) for the month of April 2022 against emission limit for the North Stack

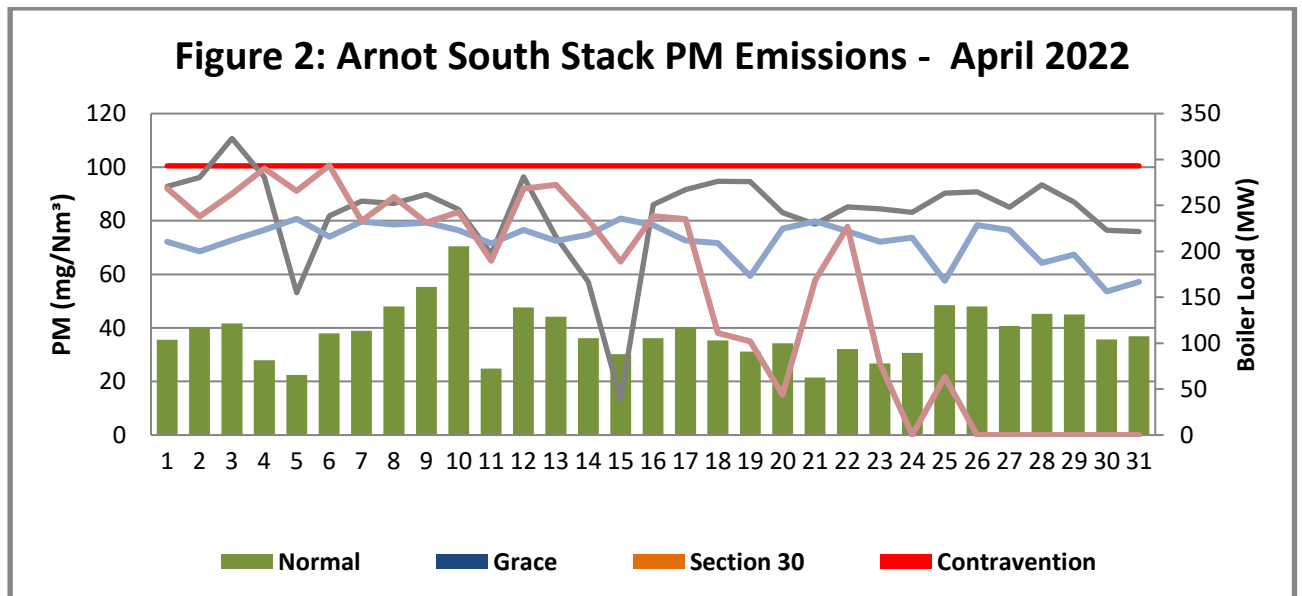


Figure 2: PM emissions (daily averages) for the month of April 2022 against emission limit for the South Stack

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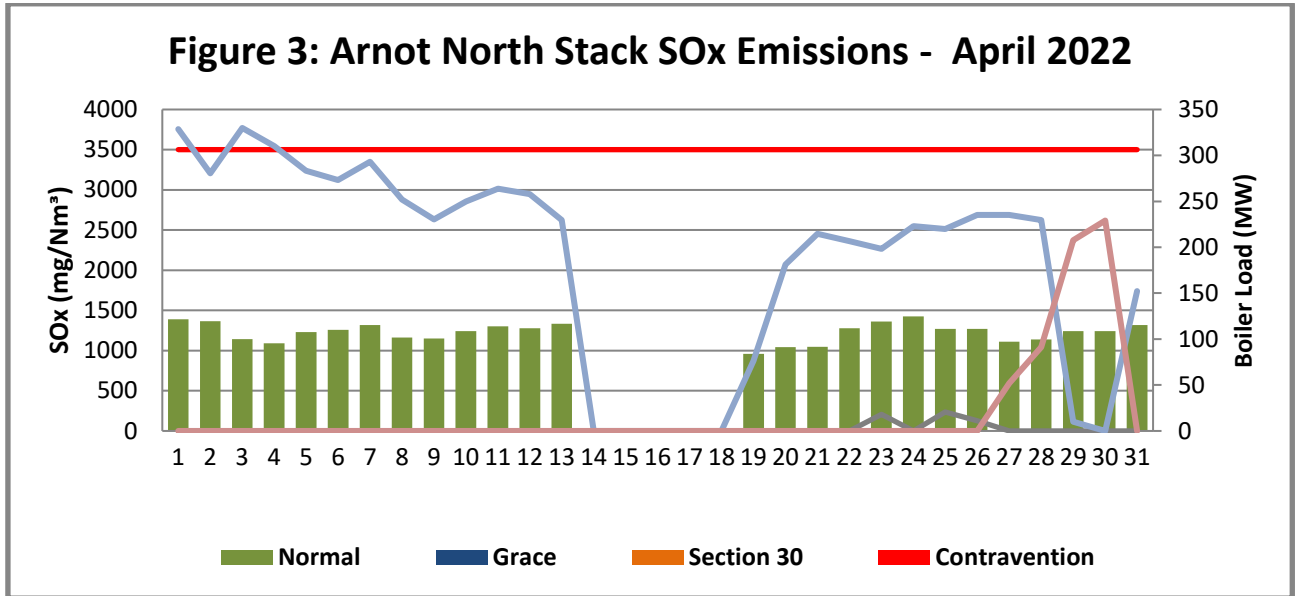


Figure 3: SO₂ emissions (daily averages) for the month of April 2022 against emission limit for the North Stack

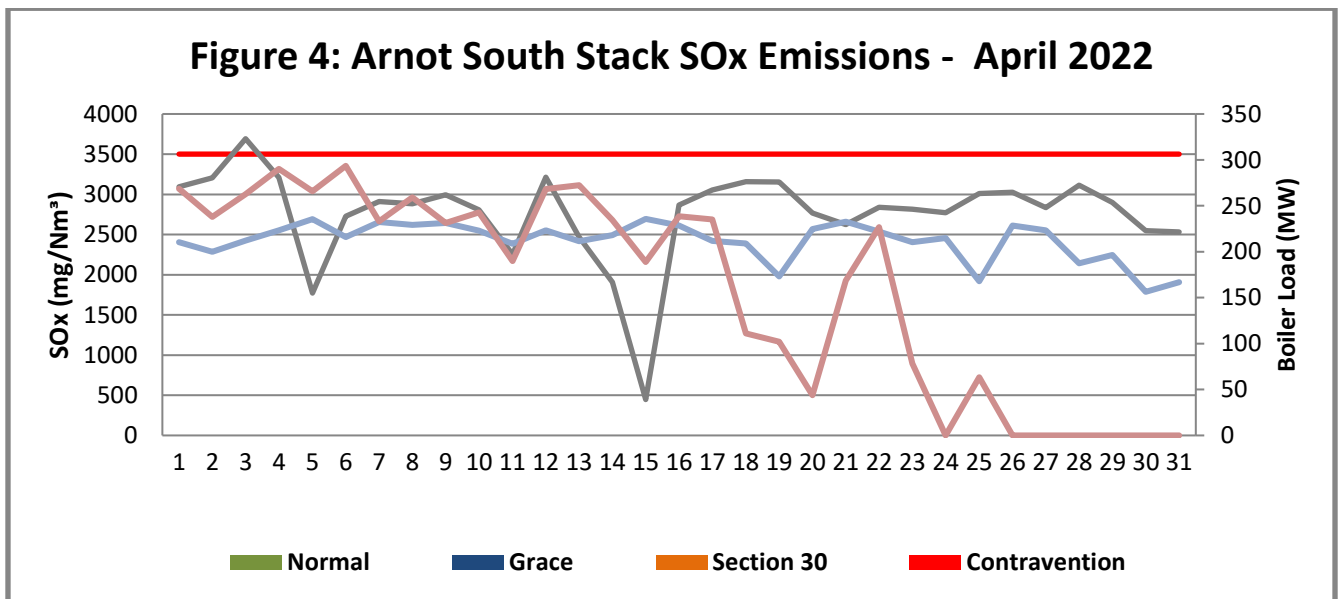


Figure 4: SO₂ emissions (daily averages) for the month of April 2022 against emission limit for the South Stack

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

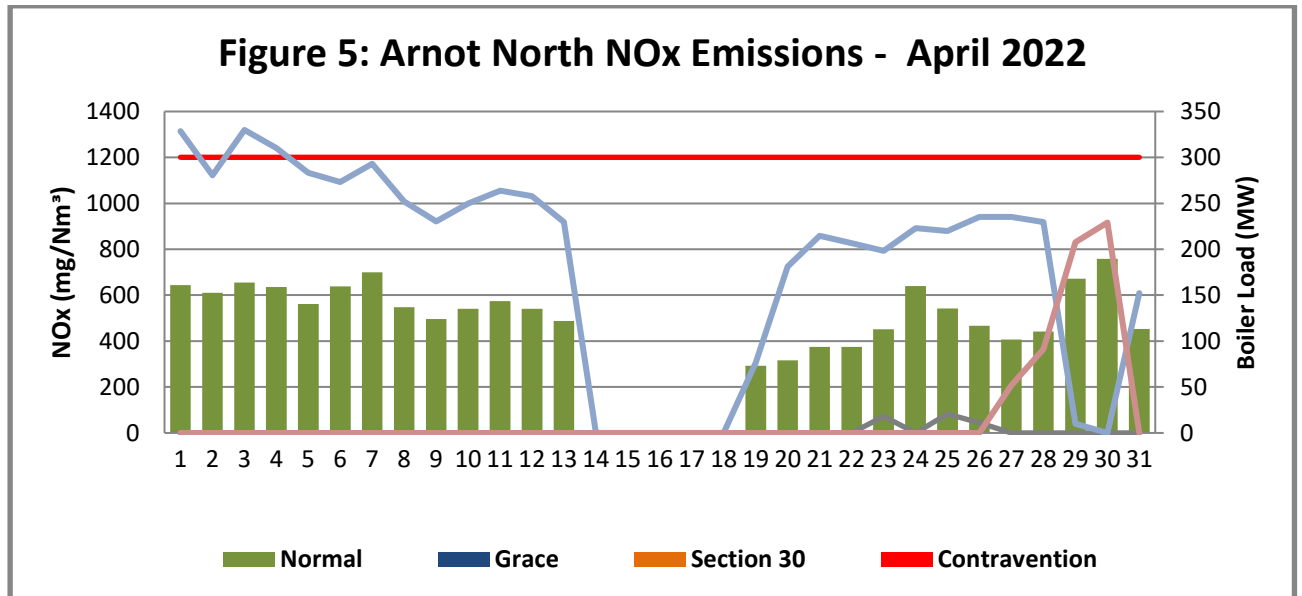


Figure 5: NO₂ emissions (daily averages) for the month of April 2022 against emission limit for the North Stack

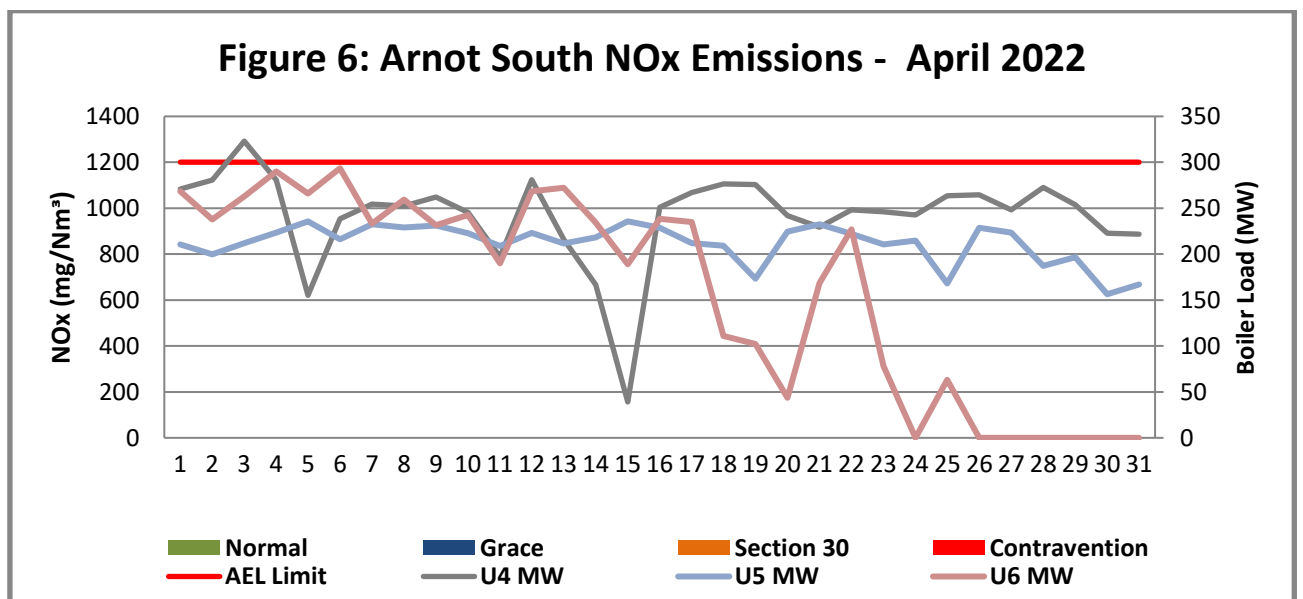


Figure 6: NO₂ emissions (daily averages) for the month of April 2022 against emission limit for the South Stack

Table 4: Monthly tonnages for the month of April 2021

Unit	PM (tons)	SO ₂ (tons)	NO ₂ (tons)
Total Tons (North & South Stack)	59.2	852.5	3 78.8

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Table 5: Monitor Availability

Unit	PM (%)	SO ₂ (%)	NO ₂ (%)
North Stack	100.0	97.8	97.8
South Stack	100.0	98.2	99.0

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	30	0	0
2	30	0	0
3	30	0	0
4	30	0	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 7. Complaints for the month of April 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 recurrence	Date by which measure will be implemented
None					

General

New O2 analyzer was installed and still need QAL2 test to be done. Once this is done, the new correction factors shall be back fitted from expiry date of 12 April 2021 and new figures shall be included on the coming monthly report.

Arnot Power station is experiencing unreliability of monitor which affect the South Stack (NOx gaseous emissions) Investigation is currently taking place.

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

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



Lawrence Machebe

Date: 20/06/2022

ENVIRONMENTAL OFFICER: ARNOT POWER STATION

Verified by



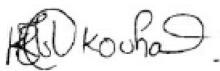
Jan-Louis Human

24-06-2022

Date:

SYSTEM ENGINEER : ARNOT POWER STATION

Supported by



Rofhiwa Tshikovha

Date: 2022.06.20

SENIOR ENVIRONMENTAL ADVISOR: ARNOT POWER STATION

Yours sincerely



Marcus Nematodzi

Date: 4 July 2022

GENERAL MANAGER: ARNOT POWER STATION