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Date:  
 14 September 2021

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Dear Mr. Mahlangu

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF AUGUST 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 August 2021, Verified emissions of particulates; SO<sub>2</sub> and NO<sub>x</sub> (as NO<sub>2</sub>) are also included.

**Raw Materials and Products**

Table1: Quantity of Raw Materials and Products used/produced for the Month of August 2021

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of August
	Coal	Tons/month	1 050 330	408 804.7
	Fuel Oil	Tons/month	10 000	2465.1
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of August 2021
	Energy	GWh	1 785 600	804509
	Ash	Tons/month	421 000	97623

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**Abatement Technology**

Table 2: Abatement Equipment Control Technology for month of August 2021

Associated Unit/Stack	Technology Type	Actual Utilisation (%) for the month of August 2021
North Stack	Fabric Filter Bags	99.9%
South Stack	Fabric Filter Bags	99.9%

Table 2.1 Abatement Equipment Efficiency for the month of August 2021

Associated Unit/Stack	Technology Type	Efficiency August - 2021
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 August 2021

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.63
Ash Content	17 to < 40 (%)	23.88

Table 4 Operating days in compliance to PM AEL Limit –August 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	35.0
South	31	0	0	0	0	32.2
<b>SUM</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 5 Operating days in compliance to NOx AEL Limit – August 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	734.0
South	31	0	0	0	0	546.9
<b>SUM</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 6: Operating days in compliance to SOx AEL Limit –August 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	1379.6
South	31	0	0	0	0	1167.9
<b>SUM</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

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Emissions Reporting

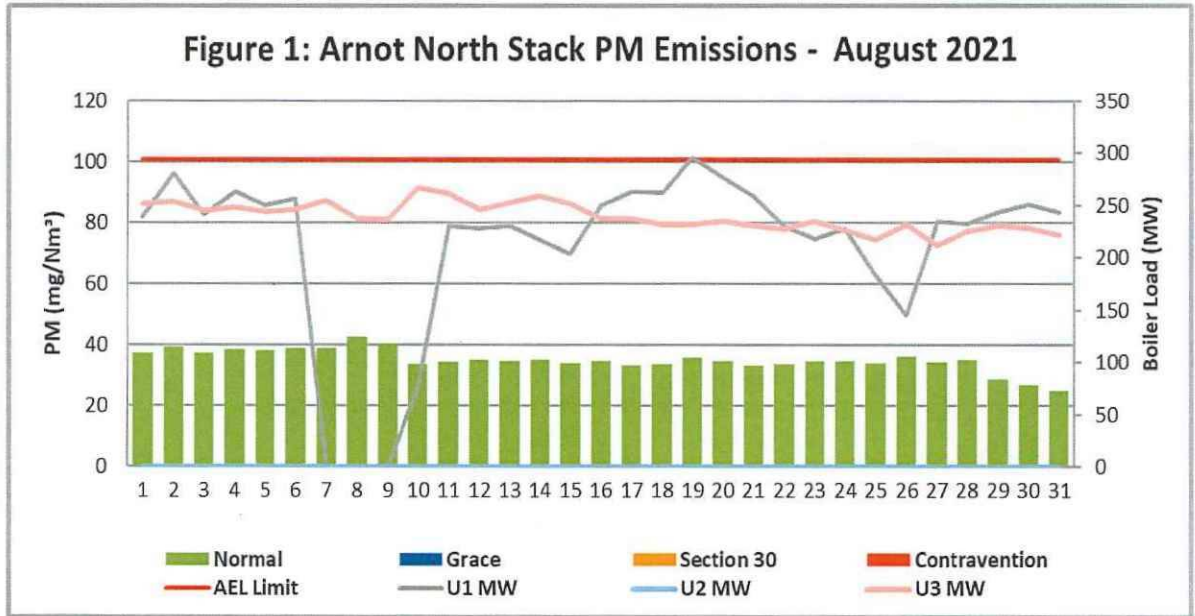


Figure 1: PM emissions (daily averages) for the month of August 2021 against emission limit for the North Stack



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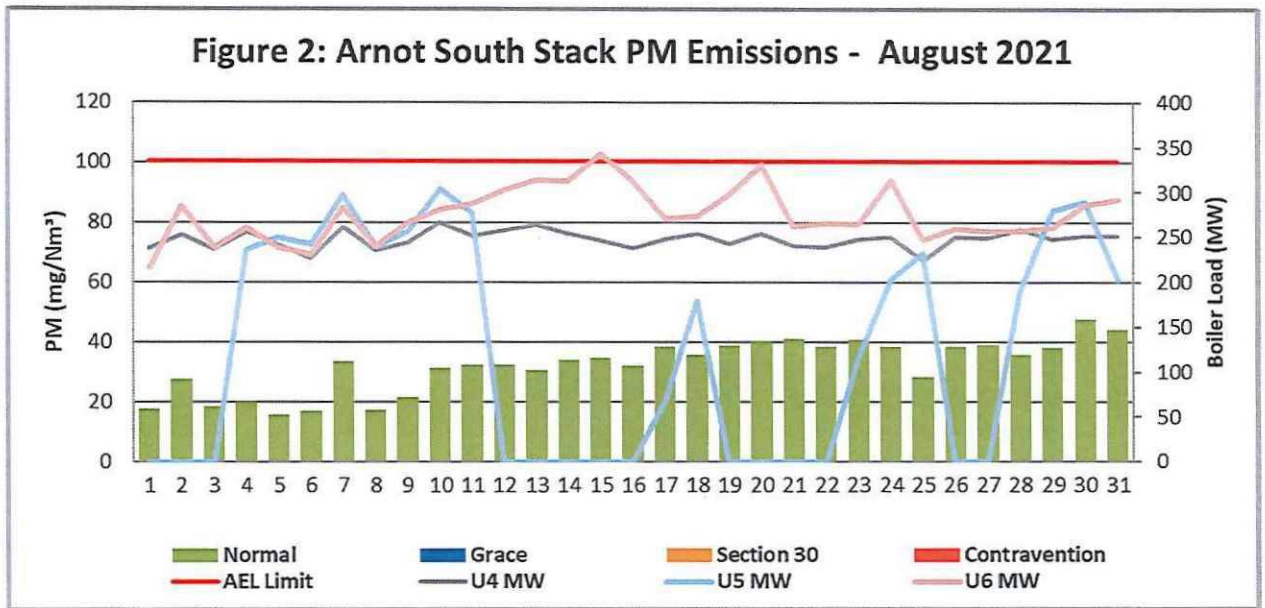


Figure 2: PM emissions (daily averages) for the month of August 2021 against emission limit for the South Stack

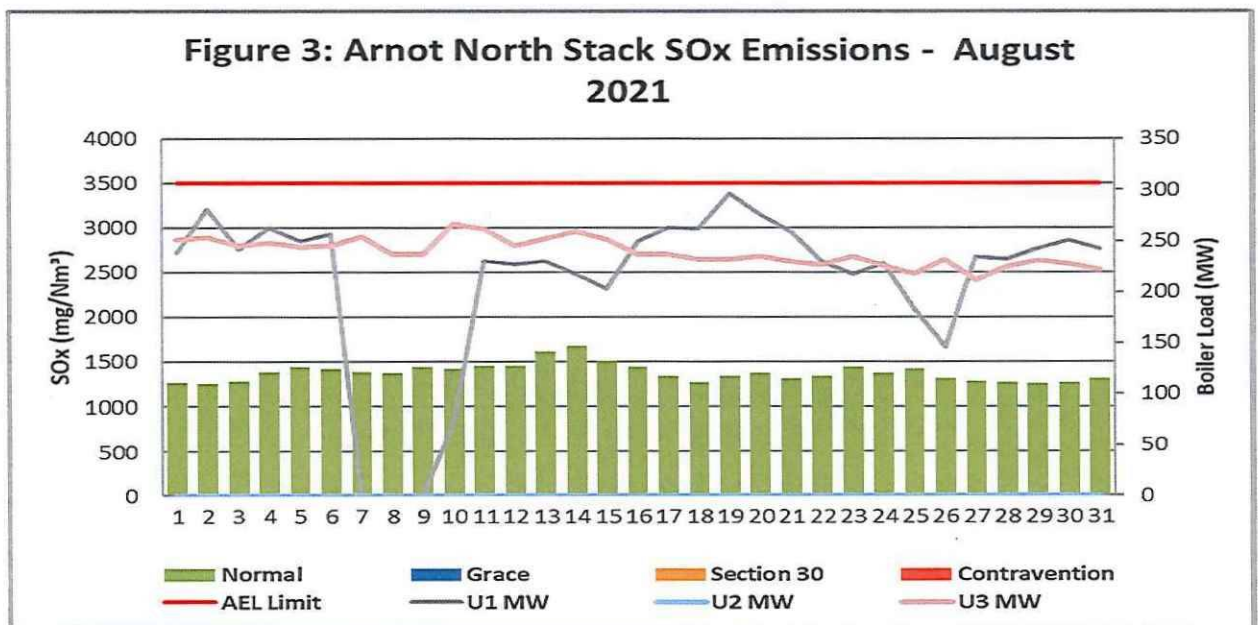


Figure 3: SO<sub>2</sub> emissions (daily averages) for the month of August 2021 against emission limit for the North Stack

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

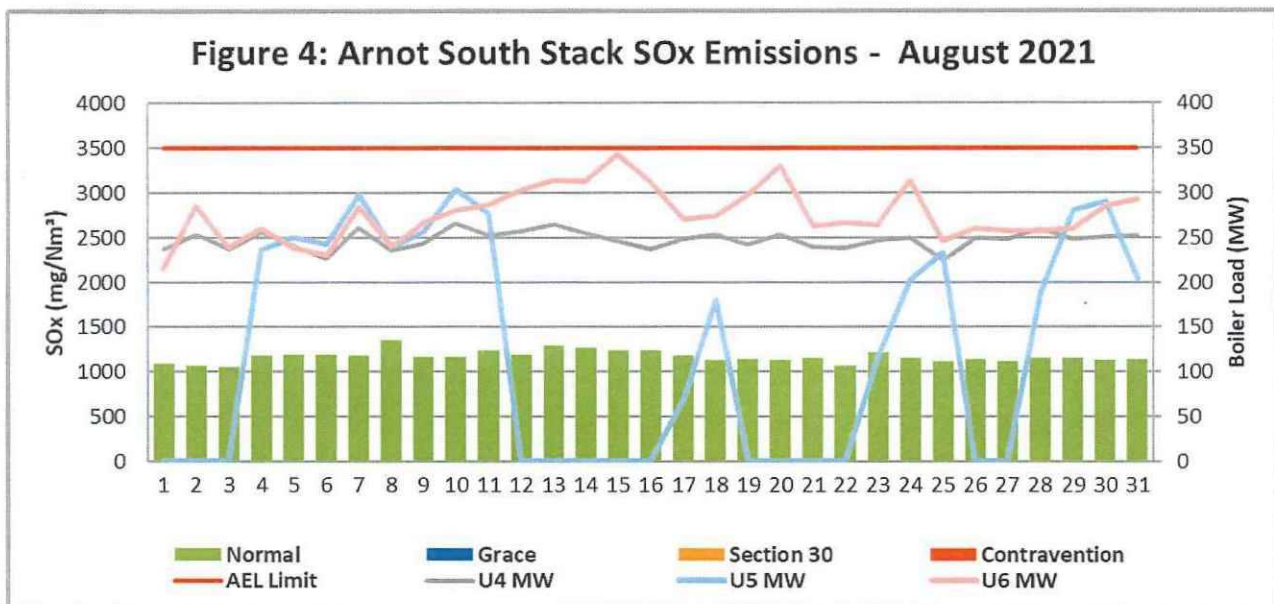


Figure 4: SO<sub>2</sub> emissions (daily averages) for the month of August -2021 against emission limit for the South Stack

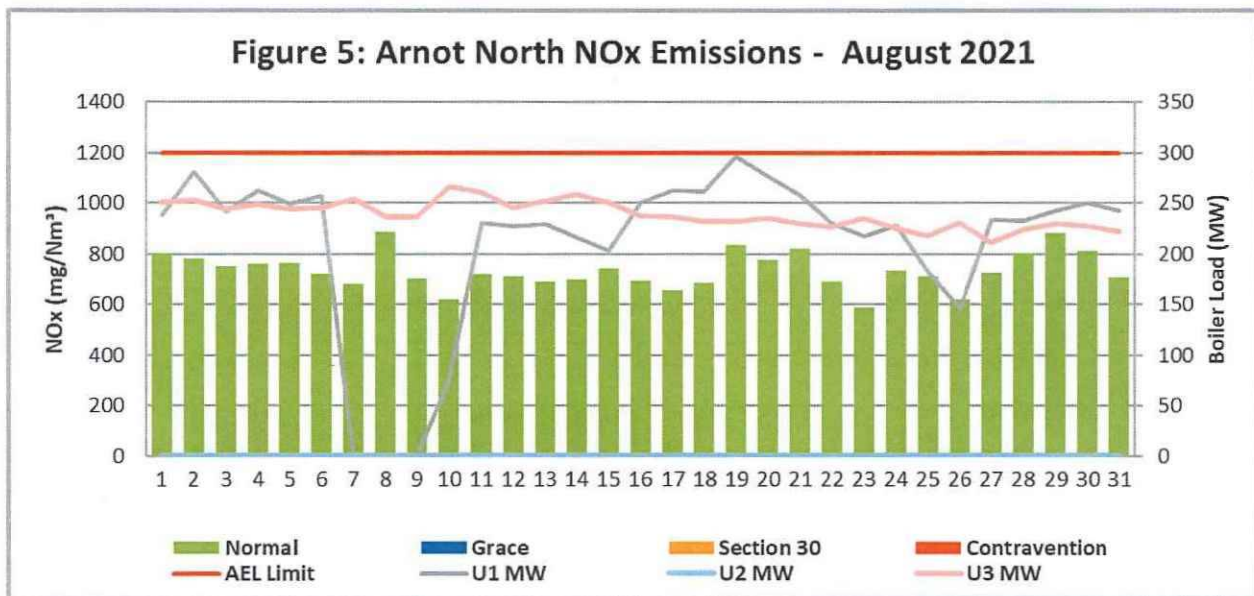


Figure 5: NO<sub>2</sub> emissions (daily averages) for the month of August -2021 against emission limit for the North Stack

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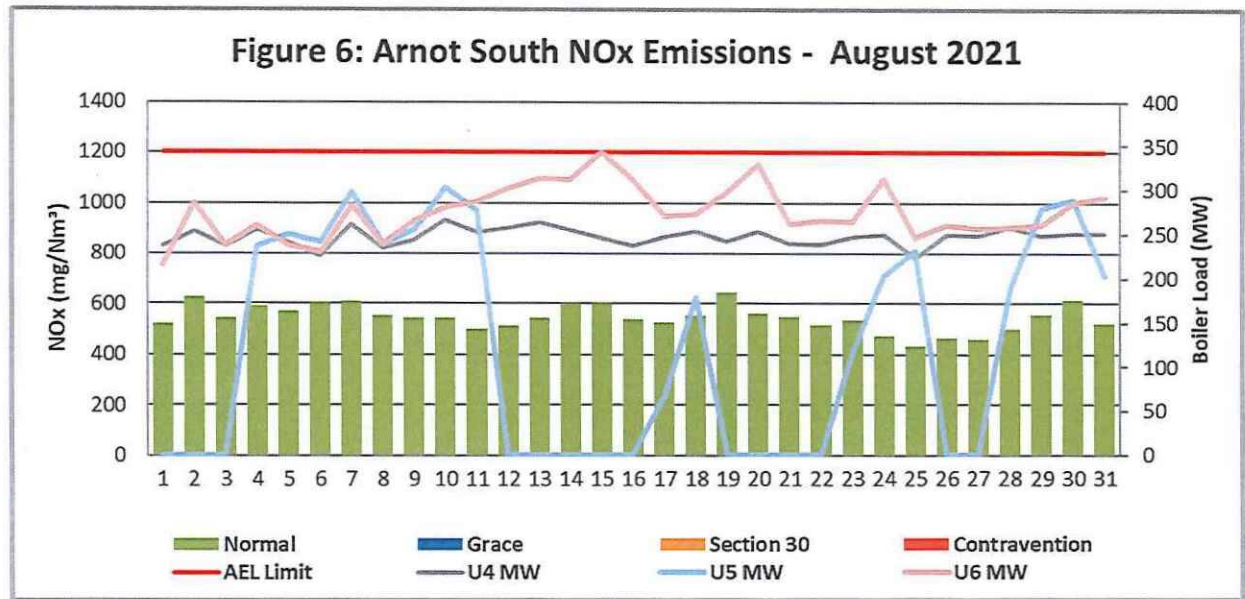


Figure 6: NO<sub>2</sub> emissions (daily averages) for the month of August -2021 against emission limit for the South Stack

Table 4: Monthly tonnages for the month of August 2021

Unit	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>2</sub> (tons)
Total Tons (North & South Stack)	97.1	3871.7	1961.1

Table 5: Monitor Availability

Unit	PM (%)	SO <sub>2</sub> (%)	NO <sub>2</sub> (%)
North Stack	100	100	100
South Stack	100	89	89.8

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	31	0	0
2	31	0	0
3	31	0	0
4	31	0	0
5	31	0	0
6	31	0	0



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**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 August 2021

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					

**General**

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

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2021**

Hoping the above will meet your satisfaction.


Compiled by



Lawrence Machebe

**ENVIRONMENTAL OFFICER: ARNOT**

Verified by



Nomathemba Mpulo

**SENIOR TECHNOLOGIST: ARNOT**

Supported by

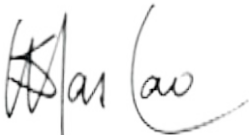
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Rofhiwa Tshikovha

**SENIOR ENVIRONMENTAL ADVISOR: ARNOT**

Yours sincerely



Tsoro Samuel Mashao

**ACTING GENERAL MANAGER: ARNOT**