



Mr. Vusi Mahlangu  
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1200

Date:  
09 November 2020

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Dear Mr. Mahlangu

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF OCTOBER 2020**

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 October 2020, 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 October 2020

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of October
	Coal	Tons/month	1 050 330	440 270.4
	Fuel Oil	Tons/month	10 000	1983.1
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of October 2020
	Energy	GWh	1 785 600	871971.55
	Ash	Tons/month	421 000	99721

**Abatement Technology**

Generation Division  
Arnot Power Station  
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Private Bag X2 Rietkuijl 1097 SA  
Tel +27 13 297 9111 Fax +27 13 297 9142 [www.eskom.co.za](http://www.eskom.co.za)

Eskom Holdings SOC Ltd Reg No 2002/015527/30

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF  
OCTOBER 2020**

Table 2 Abatement Equipment Control Technology for month of October 2020

Associated Unit/Stack	Technology Type	Actual Utilisation (%) for the month of October 2020
North Stack	Fabric Filter Bags	99.9%
South Stack	Fabric Filter Bags	99.8%

**Energy Source Characteristics**

Table 3 Energy Source Material Characteristics for the month of October 2020

Characteristic	Stipulated Range (Unit)	Monthly Average Content
Sulphur Content	0.5 to < 1 (%)	0.608%
Ash Content	17 to < 40 (%)	22.65%

Table 4 Operating days in compliance to PM AEL Limit –October 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	25.7
South	31	0	0	0	0	35.9
<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 – October 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	670.4
South	31	0	0	0	0	710.3
<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 –October 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm <sup>3</sup> )
North	31	0	0	0	0	1095.8
South	31	0	0	0	0	1349.6
<b>SUM</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF OCTOBER 2020

Emissions Reporting

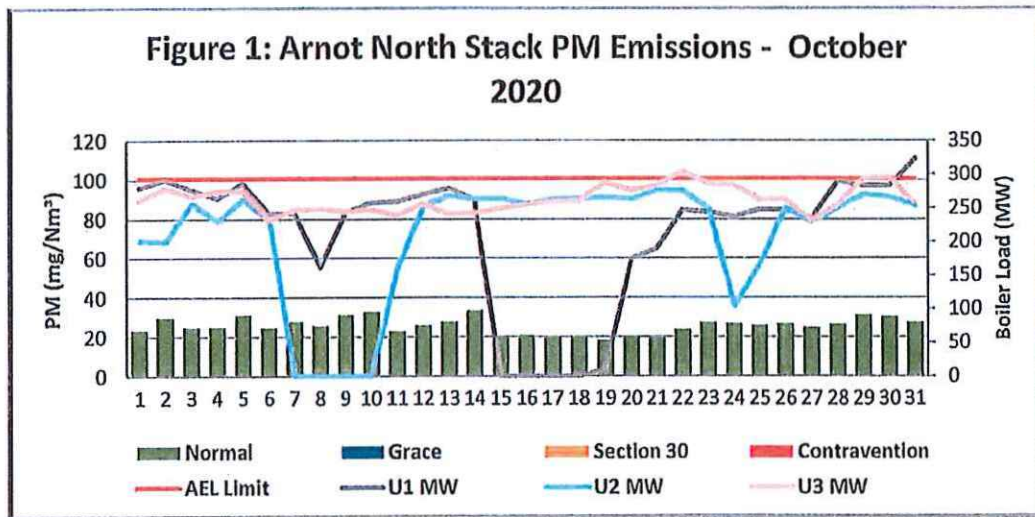


Figure 1: PM emissions (daily averages) for the month of October 2020 against emission limit for the North Stack

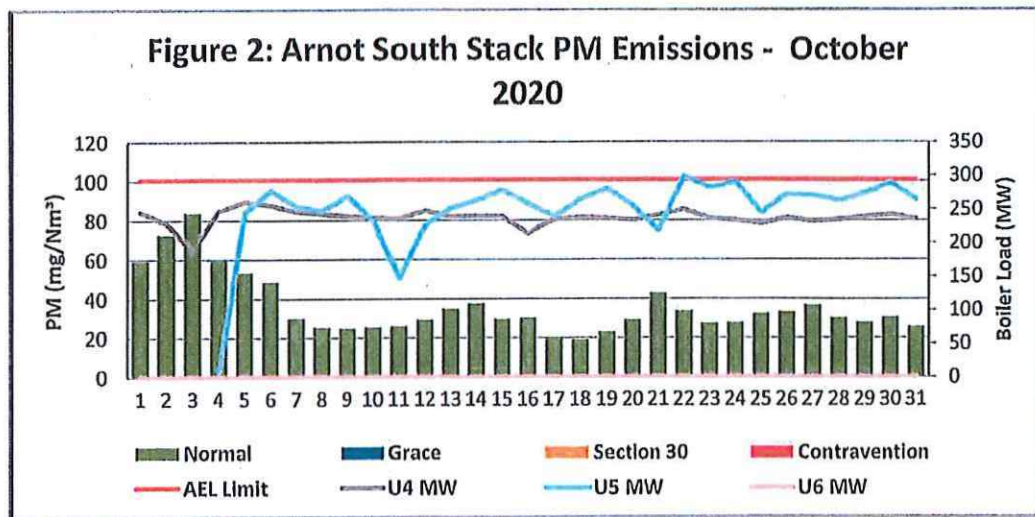


Figure 2: PM emissions (daily averages) for the month of October 2020 against emission limit for the South Stack

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ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF OCTOBER 2020

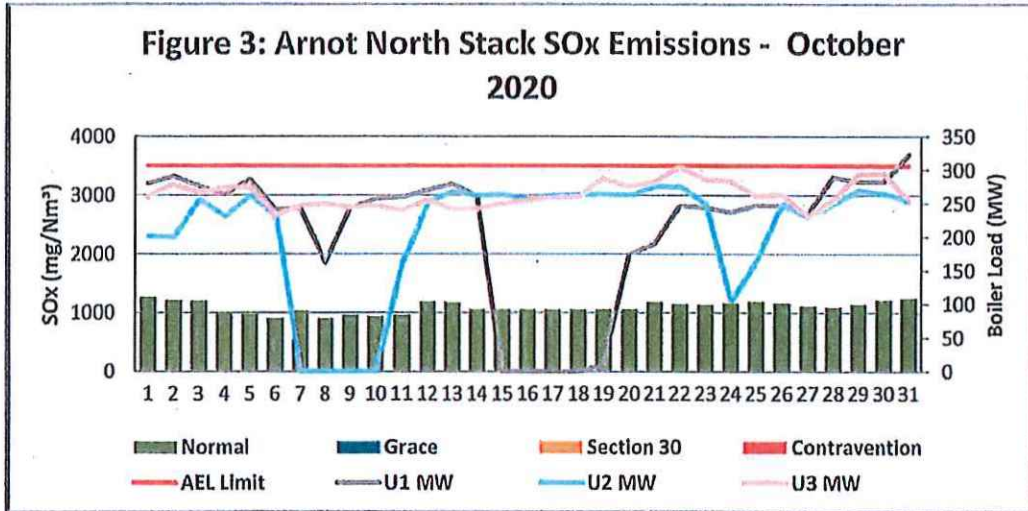


Figure 3: SO<sub>2</sub> emissions (daily averages) for the month of October 2020 against emission limit for the North Stack

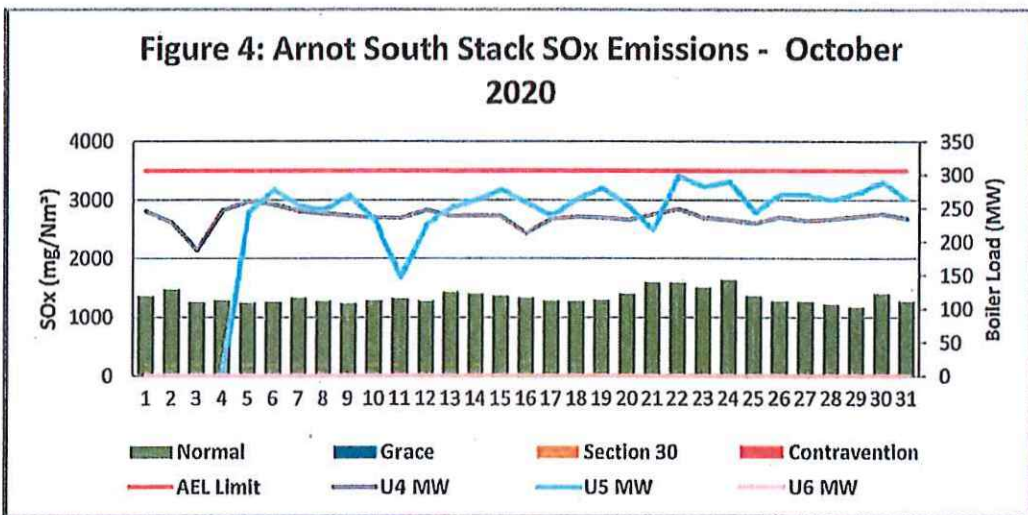


Figure 4: SO<sub>2</sub> emissions (daily averages) for the month of October -2020 against emission limit for the South Stack



ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF OCTOBER 2020

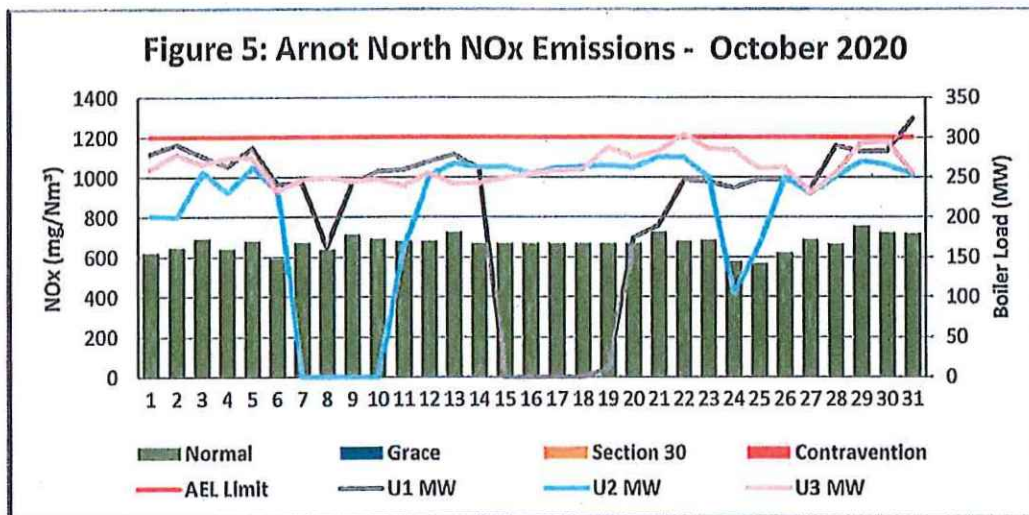


Figure 5: NO<sub>2</sub> emissions (daily averages) for the month of October -2020 against emission limit for the North Stack

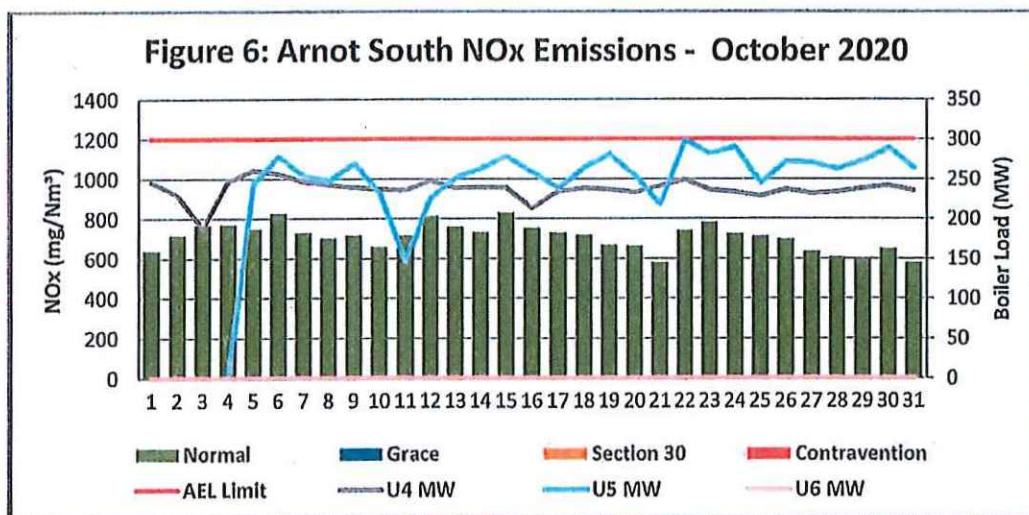


Figure 6: NO<sub>2</sub> emissions (daily averages) for the month of October -2020 against emission limit for the South Stack

Table 4: Monthly tonnages for the month of October 2020

Unit	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>2</sub> (tons)
Total Tons (North & South Stack)	118.7	5171.9	2934.8

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF  
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**Table 5: Monitor Availability**

Unit	PM (%)	SO <sub>2</sub> (%)	NO <sub>2</sub> (%)
North Stack	99.9	75.1	75.7
South Stack	98.3	98.7	99.3

**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

**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 October 2020**

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					

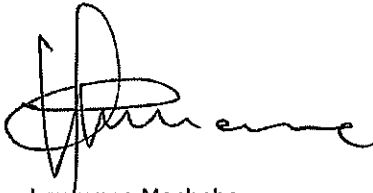
**General**

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

Hoping the above will meet your satisfaction.

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF  
OCTOBER 2020**

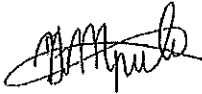
Compiled by



Lawrence Machebe

**ENVIRONMENTAL OFFICER: ARNOT**

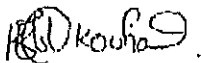
Verified by



Nomathemba Mpulo

**SENIOR TECHNOLOGIST: ARNOT**

Supported by

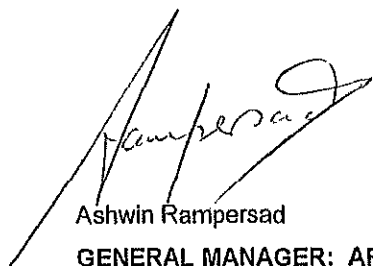


Rofhiwa Tshikovha

**SENIOR ENVIRONMENTAL ADVISOR: ARNOT**

**ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF  
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Yours sincerely

A handwritten signature in black ink, appearing to read 'Ashwin Rampersad', written over a diagonal line that extends from the bottom left towards the top right.

**Ashwin Rampersad  
GENERAL MANAGER: ARNOT**