



Mr. Vusi Mahlangu  
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Date:  
15 May 2017

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Dear Mr. Mahlangu

**ARNOT POWER STATION'S ANNUAL EMISSIONS REPORT: 2016/17 FINANCIAL YEAR**

This serves as the annual report required in terms of Section 7.6 in Arnot Power Station's Atmospheric Emission License. The emissions are for Eskom Arnot Power Station's 2016/2017 financial year, which is from 1 April 2016 to 31 March 2017. Verified emissions of particulates, monthly SO<sub>2</sub> and NO<sub>x</sub> (as NO<sub>2</sub>) emissions calculated from coal analysis are also included.

The emissions below are that of the 2016/2017 financial year.

Generation Division (Operating Unit Coal 3)  
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](http://www.eskom.co.za)

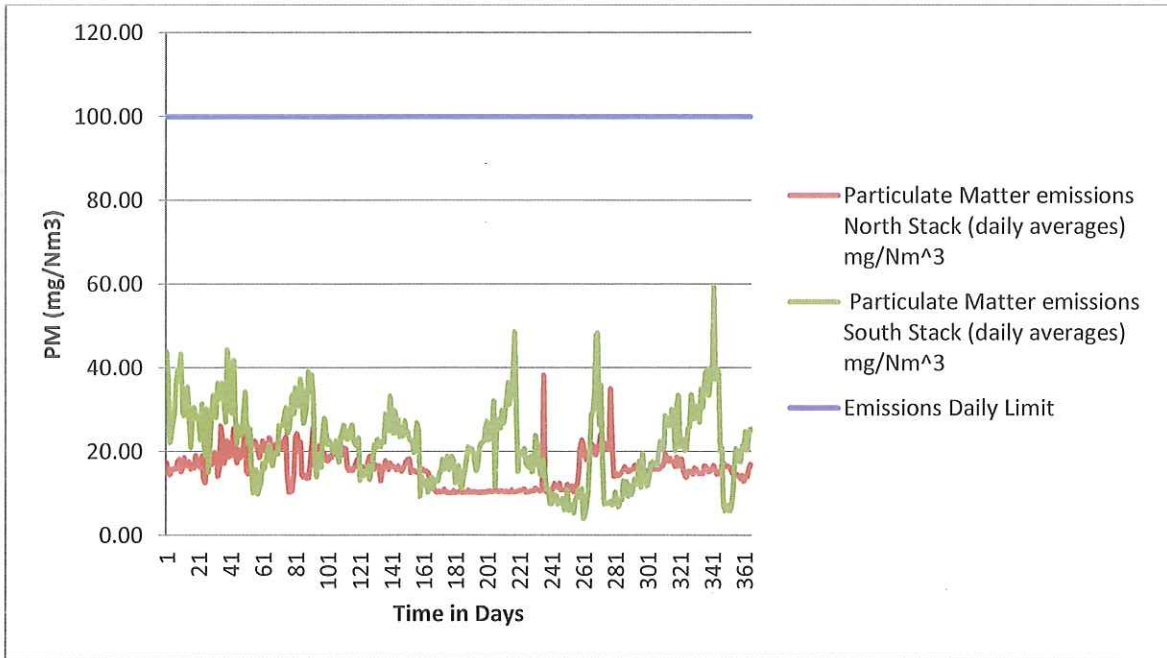


Figure 1. Daily Particulate Emissions in mg/Nm<sup>3</sup> from Arnot Power Station for 2016/2017

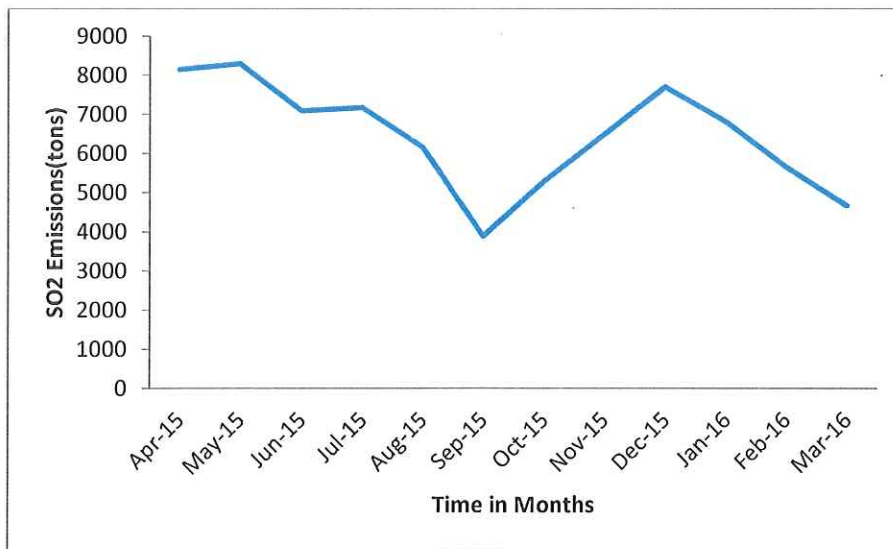


Figure 2. Monthly SO<sub>2</sub> Emissions in tons from Arnot Power Station 2016/2017

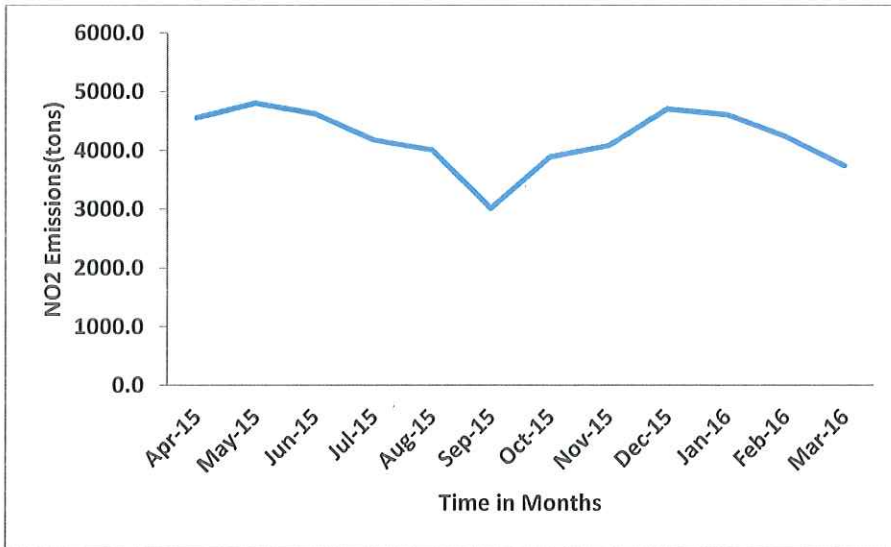


Figure 3. Monthly NO<sub>2</sub> Emissions in tons for Arnot Power Station 2016/2017

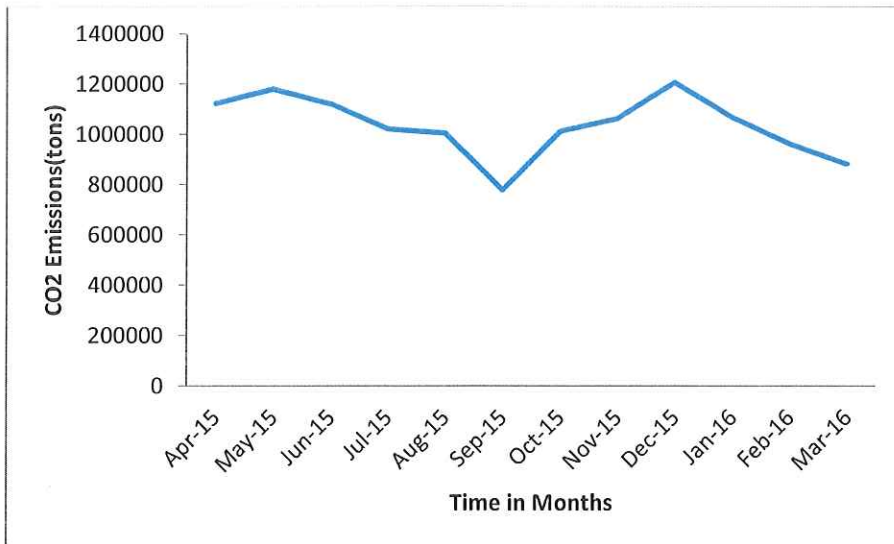


Figure 4. Monthly CO<sub>2</sub> Emissions in tons from Arnot Power Station 2016/2017

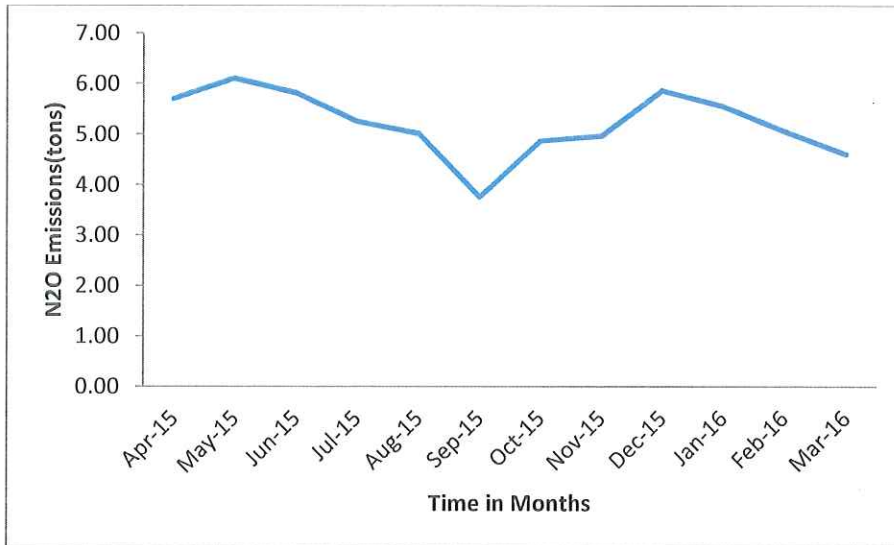


Figure 5. Monthly N<sub>2</sub>O Emissions in tons from Arnot Power Station 2016/2017

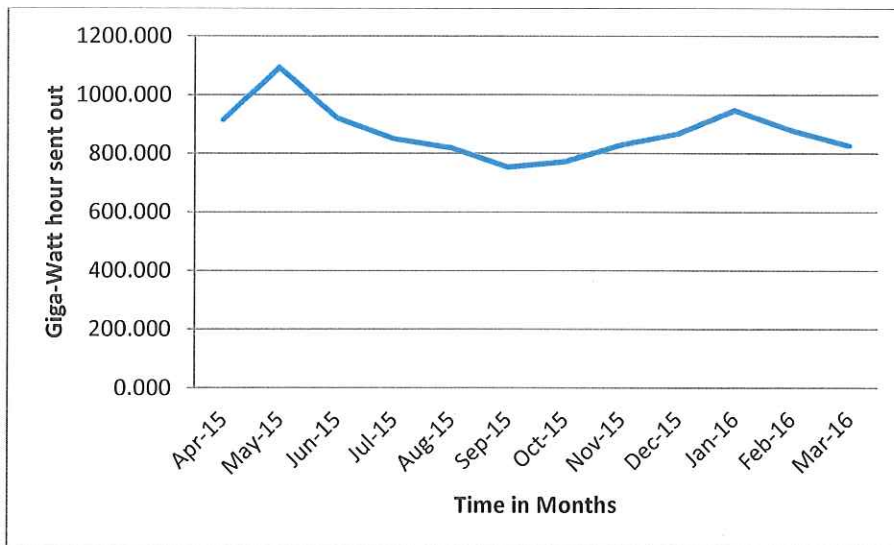


Figure 6. Monthly Energy sent out in GWh at Arnot Power Station 2016/2017

**Compliance Audit Report(s):**

A legal Compliance audit was carried out by Green Gain Consulting from 6<sup>th</sup> – 7<sup>th</sup> March 2017 (Report attached).

**Major upgrades projects:**

No major projects related to the air emissions license were done for the financial year.

**Greenhouse gas emissions:**

Please refer to figures 4 and 5.

## Gaseous and Particulate Monitoring Data availability

The Table below indicate the availability of the PM and Gaseous monitors on both the south and north stack.

Table 1. Monitoring System Availability (%)

	North Stack PM	North Stack NO	North Stack SO	South Stack PM	South Stack NO	South Stack SO
Apr-15	99.31	99.31	99.31	96.39	96.39	96.39
May-15	99.73	100	100	100	100	100
Jun-15	99.86	100	100	100	100	100
Jul-15	100	100	100	100	100	100
Aug-15	100	77.15	77.15	100	100	100
Sep-15	99.86	78.47	78.47	100	100	100
Oct-15	100	100	100	100	100	100
Nov-15	100	100	100	94.86	94.86	94.86
Dec-15	100	100	100	100	100	100
Jan-16	100	100	100	100	100	100
Feb-16	100	100	100	100	100	100
Mar-16	100	100	100	100	100	100
<b>Average Availability (%)</b>	99.89	96.24	96.24	99.27	99.27	99.27

For instances where the gaseous monitors were performing below 80%, was due to the analyzers being out of commissions.

## Complaints Register

Table 2. Complaints for April 2016-March 2017

Source Code/ Name	Date complaint Received	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
Arnot Coal Stockpile and Roads leading to the stockpile	4/ April 2016	Complainant experiencing difficulties regarding the transporting of coal and other matters arising from the transporting of coal.	Fugitive dust emissions impacting on the land and livestock of a neighbouring farmer. Fall out dust to farmer and livestock	N/A	The matter is being addressed between the complainant's lawyers and Eskom's legal departments. In the interim dust suppression is being done on a continuous basis.	To be announced once Primary Energy has sat and formulated solutions. Your offices will be kept in the loop.
Arnot Coal Stockpile and Roads leading to the stockpile	26 / August 2016	Complainant experiencing difficulties regarding the transporting of coal	Complaints about fugitive dust emissions	N/A	Current mitigation is sweeping on the tar road on ad-hoc basis, based on the amount of deposit onto the road and continuous dust suppression.	Completed

### **Instances in which the emission limit was exceeded**

The emission limit was not exceeded for any pollutant over this time frame,

### **Most recent correlation/ spot tests**

The most recent correlation and verification tests were conducted on 16<sup>th</sup> – 18<sup>th</sup> January 2016 for the north stack and 16<sup>th</sup> November 2016 and 4<sup>th</sup> December 2016 for the south stack. The results are attached to this report.

### **NAIES**

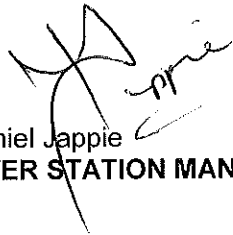
Arnot Power Station has submitted its annual NAIES report on the system.

### **General**

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

Hoping the above will meet your satisfaction.

Yours sincerely



Shamiel Jappie  
**POWER STATION MANAGER: ARNOT**