

Mr. Vusi Mahlangu
Air Quality Officer
DEDET
Private bag X11215
NELSPRUIT
1200

Date:
30 May 2018

Enquiries:

Dear Mr Mahlangu

ARNOT POWER STATION'S ANNUAL EMISSIONS REPORT: 2017/18 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 2017/2018 financial year, which is from 1 April 2017 to 31 March 2018. Verified measured emissions of particulates, SO₂ and NO_x (as NO₂) and calculated greenhouse gas emissions are included.

The emissions below are that of the 2017/2018 financial year.

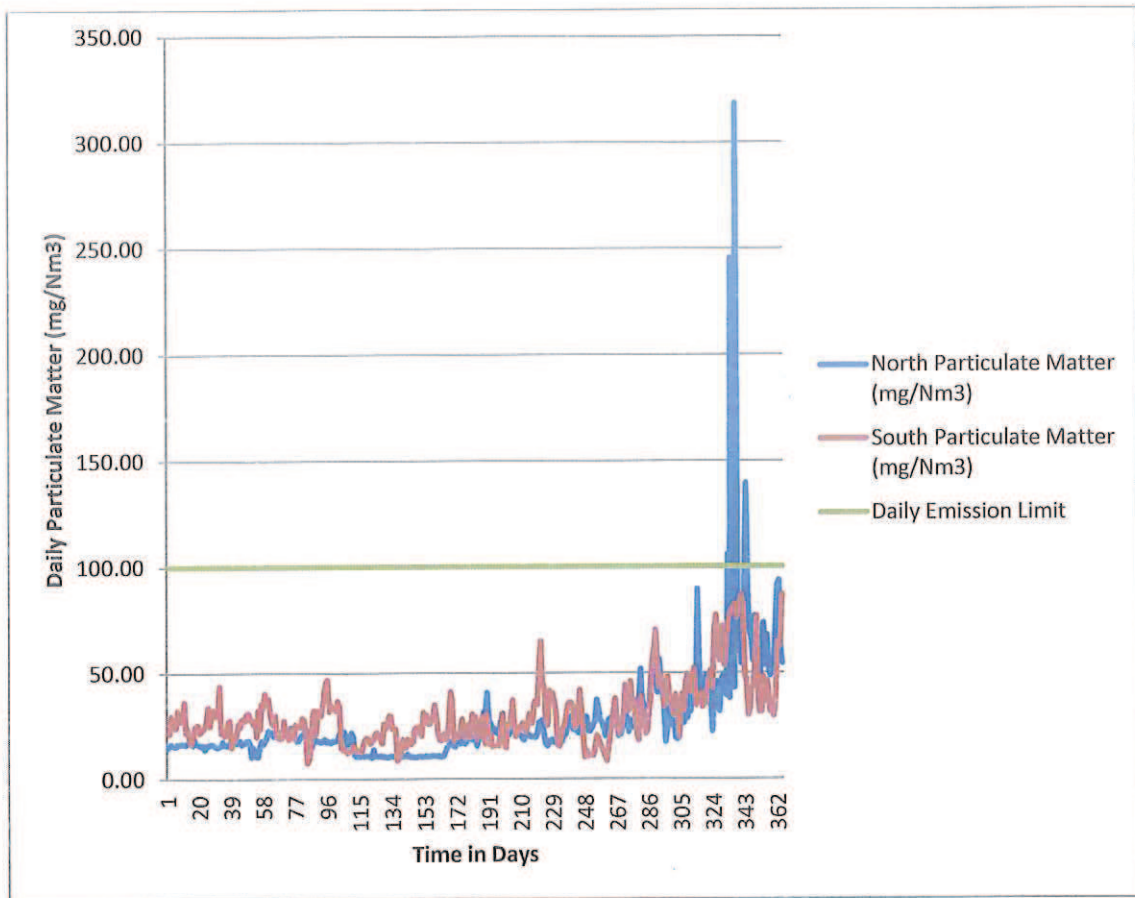


Figure 1. Daily Particulate Emissions in mg/Nm³ from Arnot Power Station for 2017/2018

Instances in which the emission limit was exceeded

Date	North Particulate Emissions (mg/Nm3)	Stack Particulate Matter (mg/Nm3)	Particulate Matter Emissions Daily limit (mg/Nm3)	Reason For Exceedance
2018/02/27	105.70		100	Ash plant Unavailability Blocked Dust Hoppers
2018/03/01	248.24		100	Running Up Unit 3 Blocked Dust Hoppers
2018/03/04	322.29		100	Ash plant Unavailability Blocked Dust Hoppers
2018/03/09	110.20		100	Ash plant Unavailability Blocked Dust Hoppers
2018/03/10	139.38		100	Ash plant Unavailability Blocked Dust Hoppers

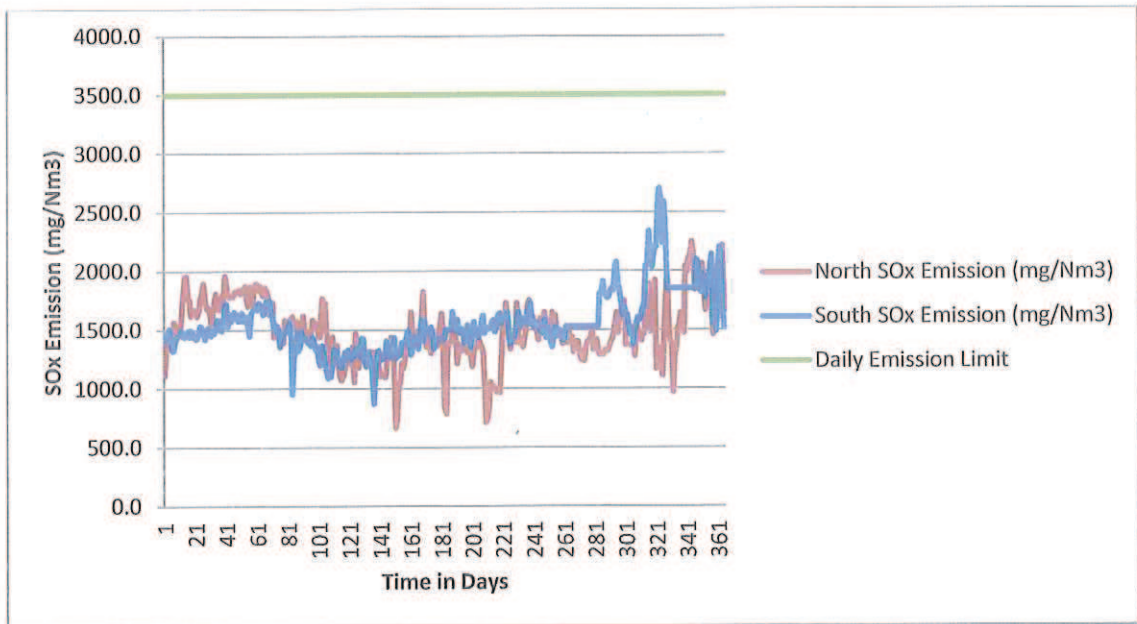


Figure 2. Monthly SO₂ Emissions in tons from Arnot Power Station 2017/2018

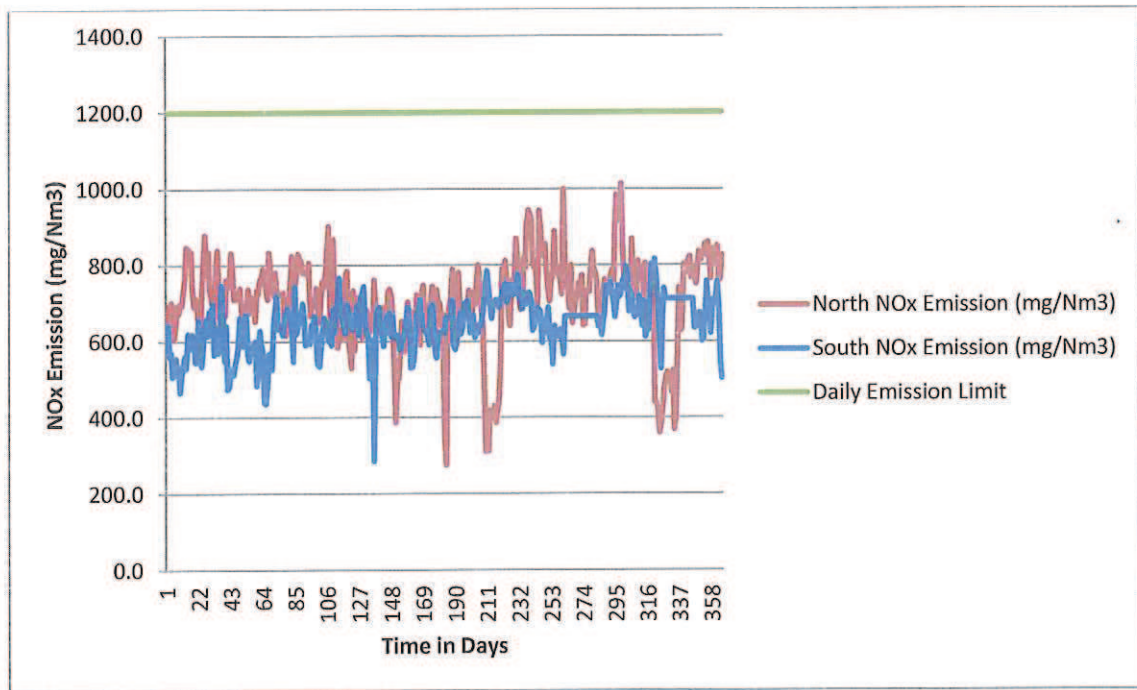


Figure 3. Monthly NO₂ Emissions in tons for Arnot Power Station 2017/2018

Figure 4. Monthly CO₂ Emissions in tons from Arnot Power Station 2017/2018

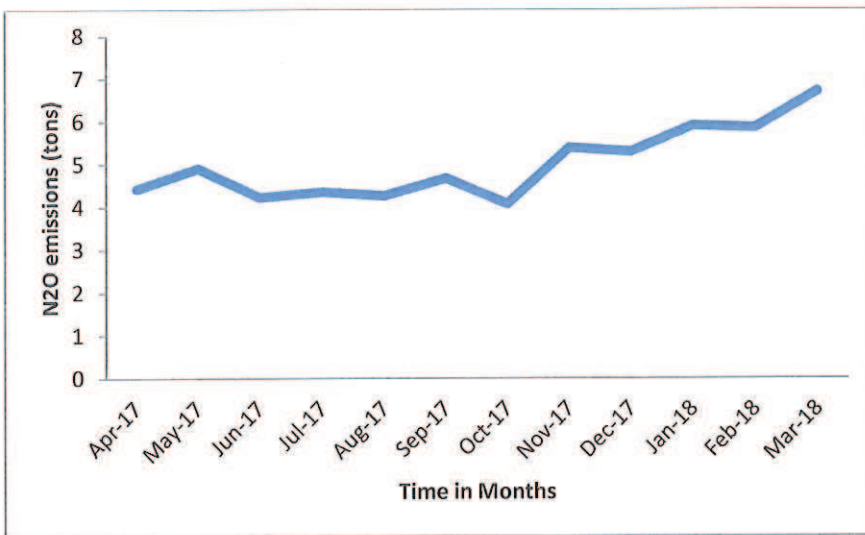


Figure 5. Monthly N₂O Emissions in tons from Arnot Power Station 2017/2018

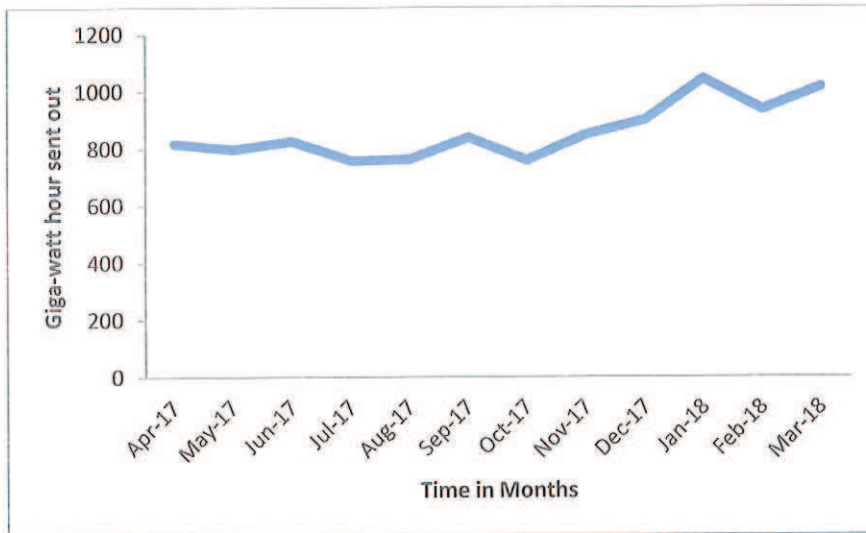


Figure 6. Monthly Energy sent out in GWh at Arnot Power Station 2017/2018

Compliance Audit Report(s):

No compliance audit was carried out during this reporting period.

Major upgrades projects:

No major projects related to the atmospheric 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 indicates the availability of the PM and Gaseous monitors on both the south and north stack for each month between April 2017 and March 2018.

Table 1. Monitoring System Availability (%)

	North Stack PM	North Stack SO	North Stack NO	South Stack PM	South Stack SO	South Stack NO
Apr-17	99.6	99.9	99.9	99.6	99.7	99.7
May-17	100	100	100	100	100	100
Jun-17	99.4	100	100	99.4	99.7	99.7
Jul-17	100	100	100	100	100	100
Aug-17	100	100	100	100	100	100
Sep-17	100	100	100	100	83.1	83.1
Oct-17	100	100	100	100	85.5	86.1
Nov-17	100	94.2	94.2	100	100	100
Dec-17	100	100	100			

				100	54.8	54.8
Jan-18	100	83.5	83.5	100	72.4	72.4
Feb-18	100	99.9	97.8	100	74.9	75.0
Mar-18	100	98.7	98.0	100	53.1	53.1
Average Availability (%)	99.92	98.02	97.78	99.92	85.27	85.33

For instances where the gaseous monitors were performing below 80%, it was due to the analyzers being out of commission. The station has a contract with SI Analytics who are responsible for the maintenance, repairs; when monitors are found to be out of commission the supplier is called out to do repairs.

Complaints Register

Table 2. Complaints for April 2017-March 2018

There were no emissions related complaints registered for the past financial year.

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
N/A						

Most recent correlation/ spot tests

The most recent correlation and verification tests were conducted on 24th – 27th January 2018 for the north stack and 16th November 2016 and 4th December 2016 for the south stack. The most recent parallel test was conducted on the 23rd December 2016 for the north stack and 16th November 2016 and 4th December 2016. The reports are separate attachments accompanying this report.

NAIES

Arnot Power Station has submitted its annual NAIES report on the system for the 2017 reporting period.

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.

Verified By

SENIOR TECHNOLOGIST: ARNOT

Yours sincerely

GENERAL MANAGER: ARNOT