

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

Date:
 17 March 2020

Enquiries:
 Mariam Joseph
 Tel +27 13 297 9828
 Fax + 27 86 661 7663

Dear Mr. Mahlangu

ARNOT POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF FEBRUARY 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 February 2020, 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 February 2020

| Raw Materials and Products used | Raw Material Type | Unit | Maximum Permitted Consumption/ Rate (Quantity) | Consumption/ Rate in Month of February 2020 |
|---------------------------------|--------------------------|------------|--|---|
| | Coal | Tons/month | 1 050 330 | 519303.61 |
| | Fuel Oil | Tons/month | 10 000 | 2116.6 |
| Production Rates | Product/ By-Product Name | Unit | Maximum Production Capacity Permitted (Quantity) | Production Rate in Month of February 2019 |
| | Energy | GWh | 1 785 600 | 915952 |
| | Ash | Tons/month | 421 000 | 119180.178 |

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

Abatement Technology

Table 2. Abatement Equipment Control Technology for month of February 2020

| Associated Unit/Stack | Technology Type | Actual Utilisation (%) for the month of October |
|-----------------------|--------------------|---|
| North Stack | Fabric Filter Bags | 99.5% |
| South Stack | Fabric Filter Bags | 99.6% |

Table 3 Operating days in compliance to PM AEL Limit – February 2020

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average PM (mg/Nm ³) |
|-----------------------|-----------|----------|------------|---------------|------------------|----------------------------------|
| North | 29 | 0 | 0 | 0 | 0 | 40.8 |
| South | 29 | 0 | 0 | 0 | 0 | 70.1 |
| SUM | 58 | 0 | 0 | 0 | 0 | |

Table 4 Operating days in compliance to NOx AEL Limit – February 2020

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average NOx (mg/Nm ³) |
|-----------------------|-----------|----------|------------|---------------|------------------|-----------------------------------|
| North | 29 | 0 | 0 | 0 | 0 | 815.5 |
| South | 29 | 0 | 0 | 0 | 0 | 695.7 |
| SUM | 58 | 0 | 0 | 0 | 0 | |

Table 5 Operating days in compliance to SOx AEL Limit – February 2020

| Associated Unit/Stack | Normal | Grace | Section 30 | Contravention | Total Exceedance | Average SOx (mg/Nm ³) |
|-----------------------|-----------|----------|------------|---------------|------------------|-----------------------------------|
| North | 29 | 0 | 0 | 0 | 0 | 1605.1 |
| South | 29 | 0 | 0 | 0 | 0 | 1443.1 |
| SUM | 58 | 0 | 0 | 0 | 0 | |

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

Emissions Reporting

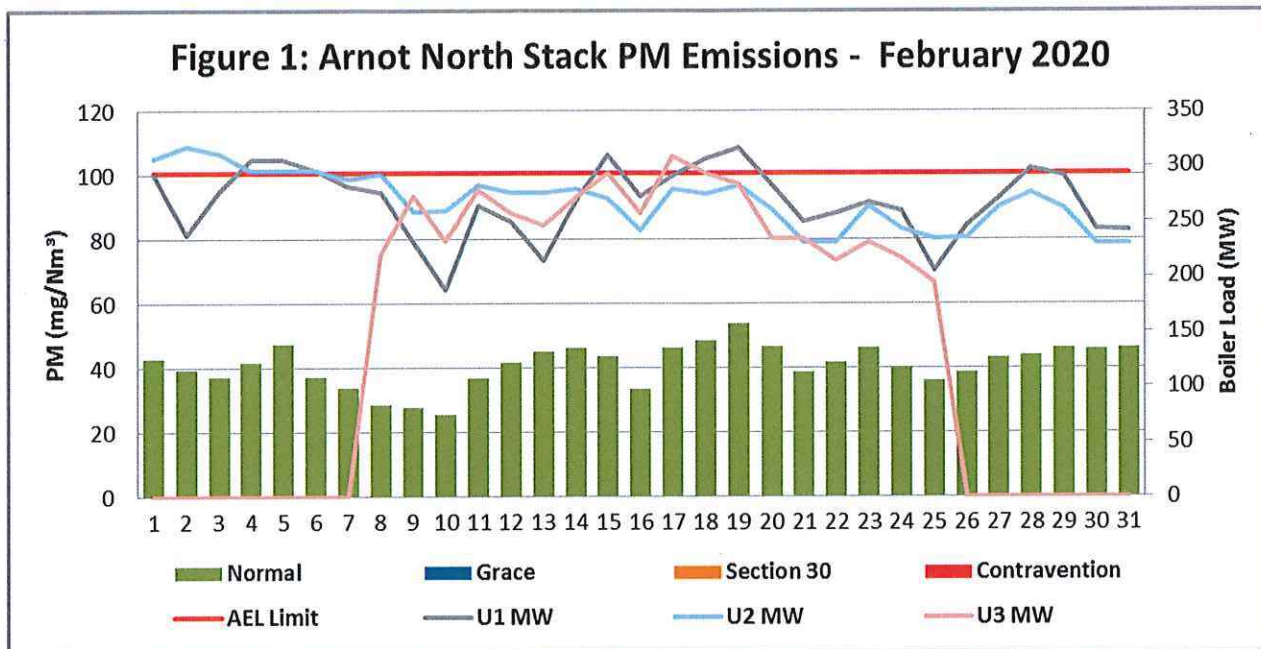


Figure 1: PM emissions (daily averages) for the month of February 2020 against emission limit for the North Stack

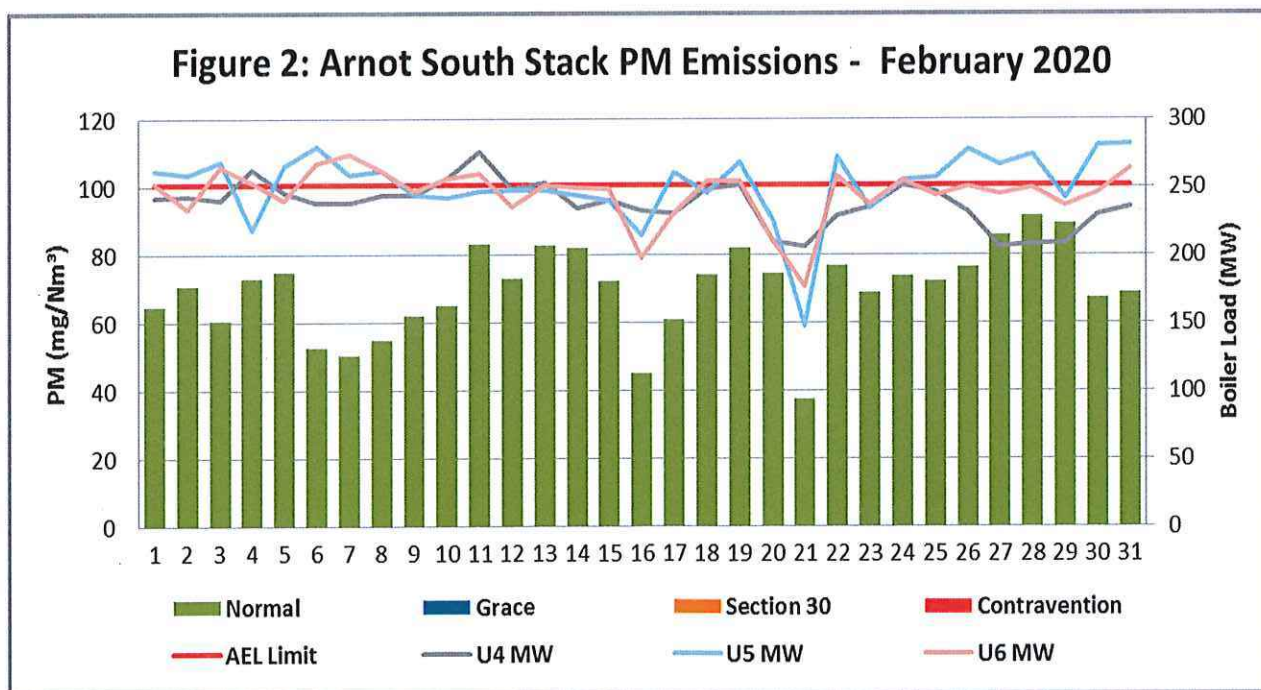


Figure 2: PM emissions (daily averages) for the month of February 2020 against emission limit for the South Stack

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

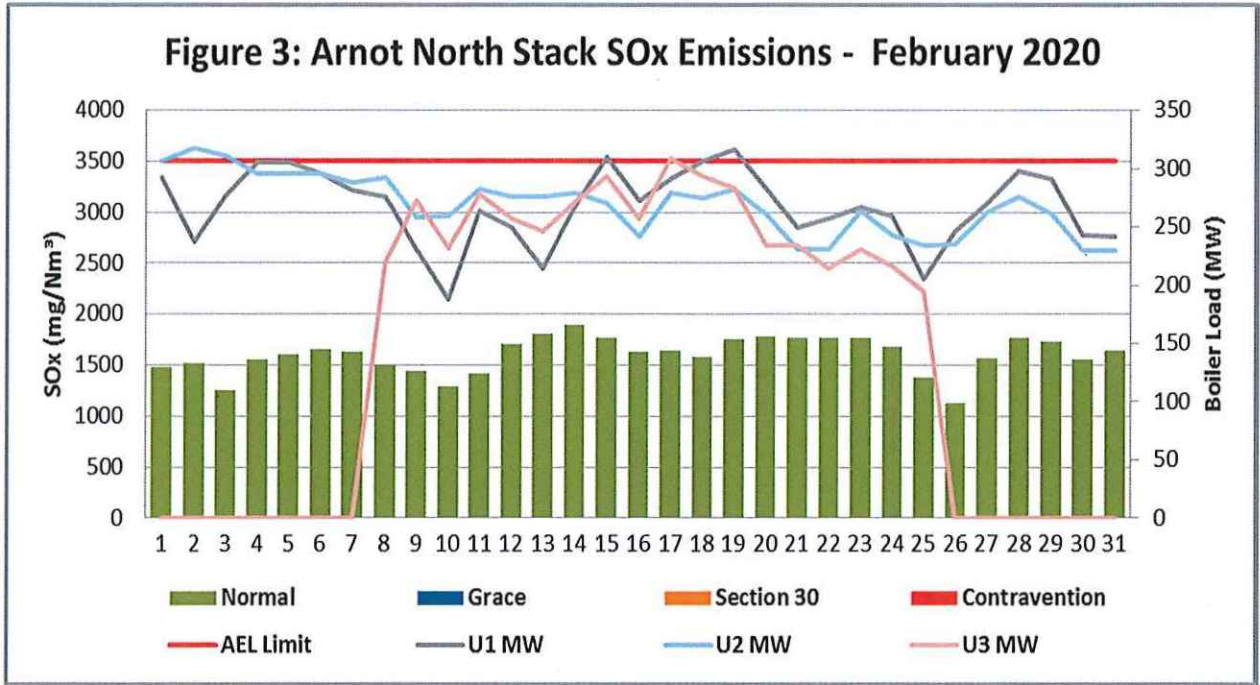


Figure 3: SO₂ emissions (daily averages) for the month of February-2020 against emission limit for the North Stack

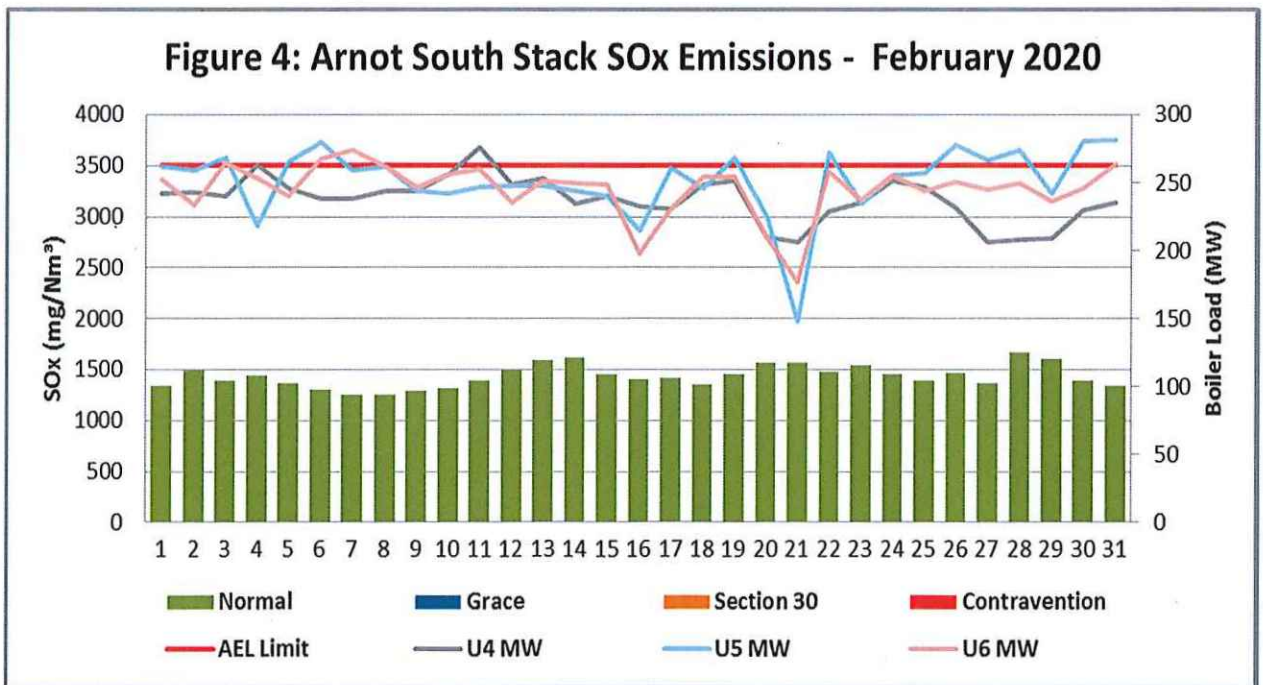


Figure 4. SO₂ emissions (daily averages) for the month of February -2020 against emission limit for the South Stack.

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

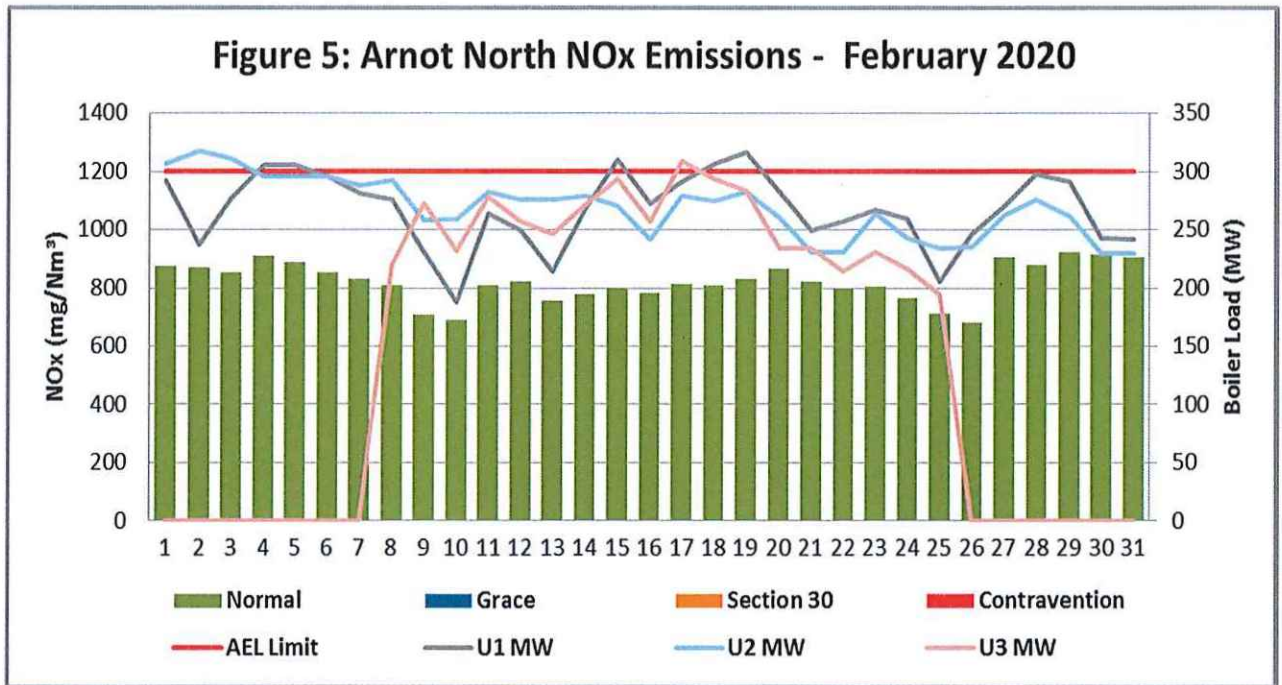


Figure 5: NO₂ emissions (daily averages) for the month of February-2020 against emission limit for the North Stack

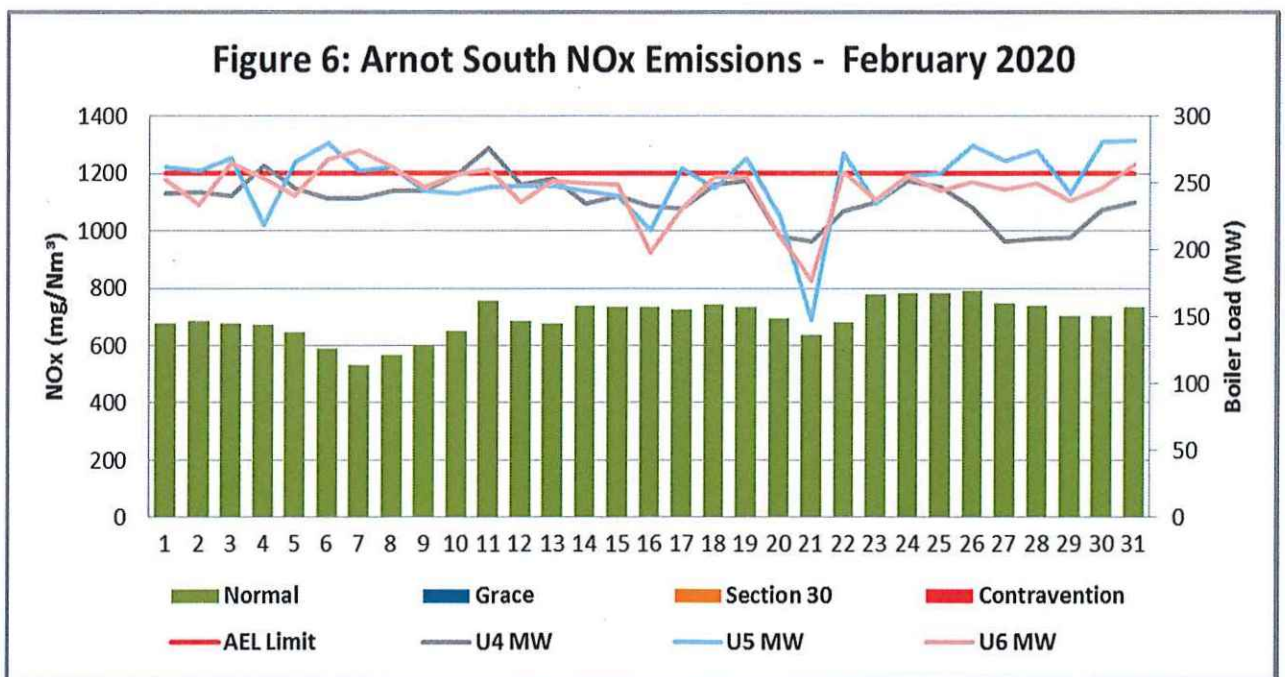


Figure 6: NO₂ emissions (daily averages) for the month of February-2020 against emission limit for the South Stack

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

Table 6: Monthly tonnages for the month of February 2020

| Unit | PM (tons) | SO ₂ (tons) | NO ₂ (tons) |
|---|-----------|------------------------|------------------------|
| Total Tons (North & South Stack) | 311.8 | 8336.6 | 4097.8 |

Table 5 Monitor Availability

| Unit | PM (%) | SO ₂ (%) | NO ₂ (%) |
|--------------------|--------|---------------------|---------------------|
| North Stack | 100 | 99.9% | 99.7% |
| South Stack | 100 | 98.9% | 99.9% |

Table 7: 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 | 29 | 0 | 0 |
| 2 | 29 | 0 | 0 |
| 3 | 29 | 0 | 0 |
| 4 | 29 | 0 | 0 |
| 5 | 29 | 0 | 0 |
| 6 | 29 | 0 | 0 |

Light up information

Continuous reporting is being done even during start-ups, emissions were not affected

Complaints Register

Table 8 Complaints for the month of February 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 | | | | | |

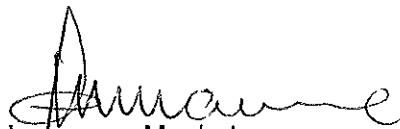
General

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

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

Hoping the above will meet your satisfaction.

Compiled by

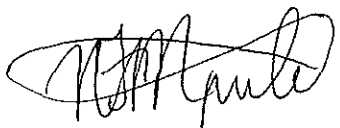


Lawrence Machebe

ENVIRONMENTAL OFFICER: ARNOT

17.03.2020

Verified by



2020-03-17

Nomathemba Mpulo

SENIOR TECHNOLOGIST: ARNOT

Supported by



Rofhiwa Tshikovha 2020 03 17

SENIOR ENVIRONMENTAL ADVISOR: ARNOT

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

Yours sincerely

A handwritten signature in black ink, appearing to read "Ashwin Rampersad". The signature is written in a cursive style with a large, sweeping initial 'A'.

Ashwin Rampersad

ACTING GENERAL MANAGER: ARNOT