



Mr. Vusi Mahlangu
Nkangala District Municipality

Address: PO Box 437
Middleburg
1050

Date:
Dec 2018

Enquiries: |

Ref: *Kusile Power Station AEL (17/4/AEL/MP312/11/12)*

Dear Mr. Mahlangu

KUSILE POWER STATION'S BI-ANNUAL EMISSIONS REPORT

This serves as the bi-annual report required in terms of Section 7.2.1 in Kusile Power Station's Provisional Atmospheric Emission License: 17/4/AEL/MP311/12/01. The report covers the time period from April until Sep 2018 for particulate emission, SO₂, NO_x as NO₂, CO₂ and CO. Please note that, the emissions reported are for Unit 01, Unit 02 – 06 are still under construction or being commissioned.

Hoping the above will meet your satisfaction.

Yours sincerely

~~ACTING~~ GENERAL MANAGER: KUSILE POWER STATION
DATE:

KUSILE POWER STATION'S BI-ANNUAL EMISSIONS REPORT

1. Name, description and reference number of plant as specified in the Atmospheric Emission Licence

Name of facility	Kusile Power Station
Description of facility	Power Generation
Reference number of plant	17/4/AEL/MP312/11/12

2. Emission tonnages

The emissions in table 1 below are of the period Apr until Sep 2018. Fig 1 – 5 indicates the pollutant emission trends.

Month	PM (tons)	SO ₂ (tons)	NO ₂ (tons)	CO ₂ (tons)	CO (tons)
Apr 2018	2.0	52	223		138 278
May 2018	5.0	403	1177		322 242
June 2018	6.1	513	1360		257 593
July 2018	7.8	452	1238		367 417
Aug 2018	5.3	389	1002		418 436
Sep 2018	3.1	251	771		309 096
Total	29.3	2060	5771		1813 062

Table 1: Emission tonnages

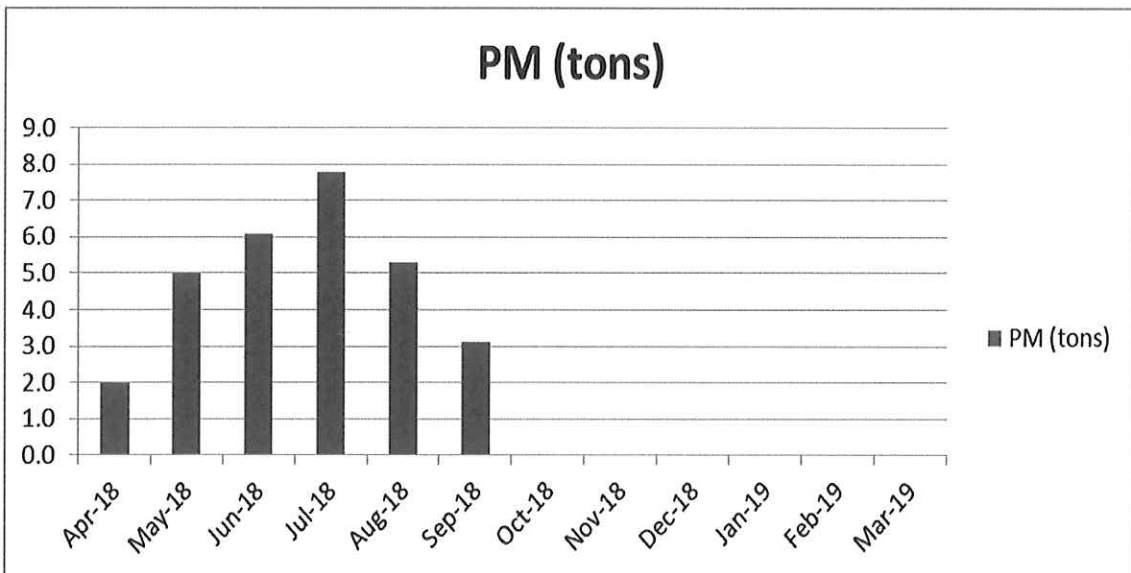


Fig 1: Monthly Particulate Matter emission in tons from Apr 18 until Sep 18

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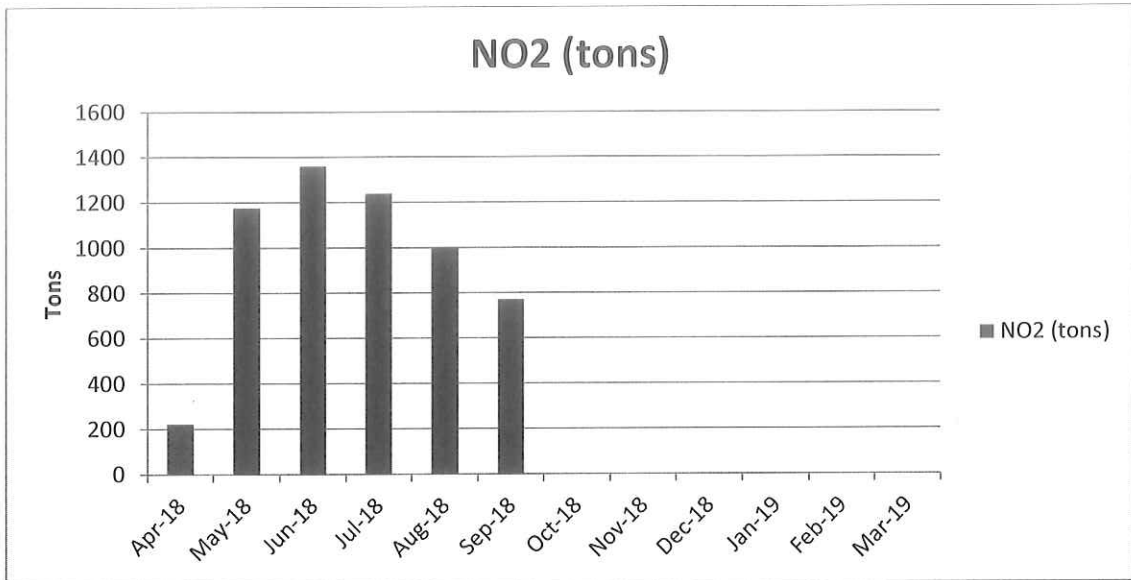


Fig 2: Monthly NO₂ emission in tons from Apr 18 until Sep 18

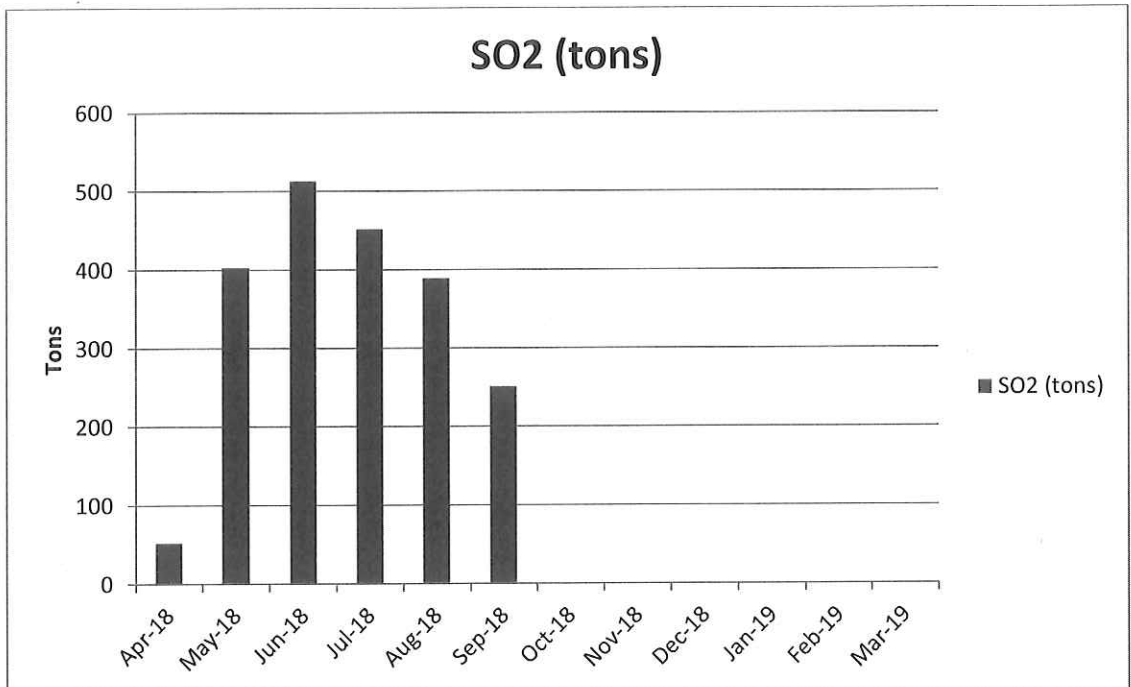


Fig 3: Monthly SO₂ emission in tons from April 18 until Sep 18

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Fig 4: Monthly CO₂ emission in tons from Apr 18 until Sep 18

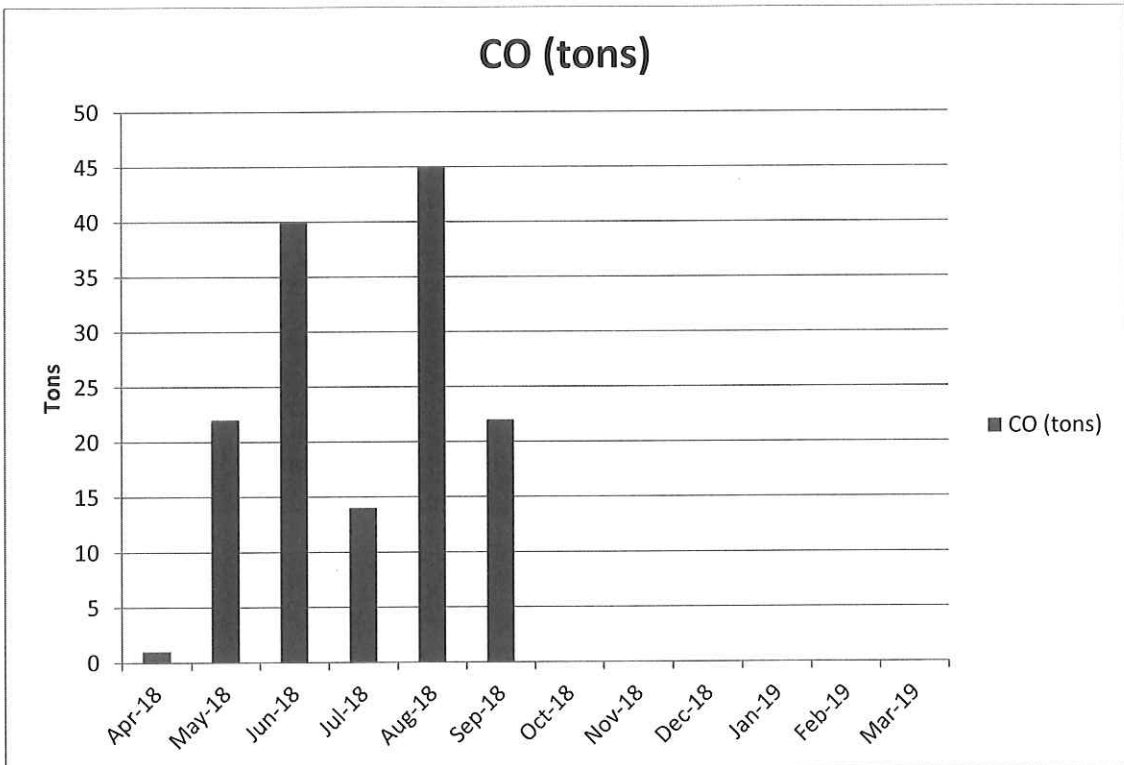


Fig 5: Monthly CO emission in tons from Apr 18 until Sep 18

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3. Monitoring availability in %

Months	PM	SOx	NOx	CO ₂
April 2018	100	100	99.8	
May 2018	100	100	100	
June 2018	100	100	100	
July 2018	100	100	84.2	
Aug 2018	100	100	100	
Sep 2018	100	100	100	

Table 2: Monitor availability in percentages

4. Raw Materials

The AEL limits the consumption of raw materials and allowable production capacity of products. Table 3 below indicated material consumption for April until Sep 2018 and fig 6 – 7 indicates the trends thereof.

Month	Coal	Fuel oil	Limestone
April 2018	54 163	3223.9	7428
May 2018	182 668	1996.3	11037
June 2018	224 301	1049.36	9466
July 2018	182 535	1287.02	12687
Aug 2018	179 517	7210.16	8360
Sep 2018	180 774	2256.6	5766
Total	1003958	17023.34	54744

Table 3: Raw material consumption Apr 18 until Sep 18

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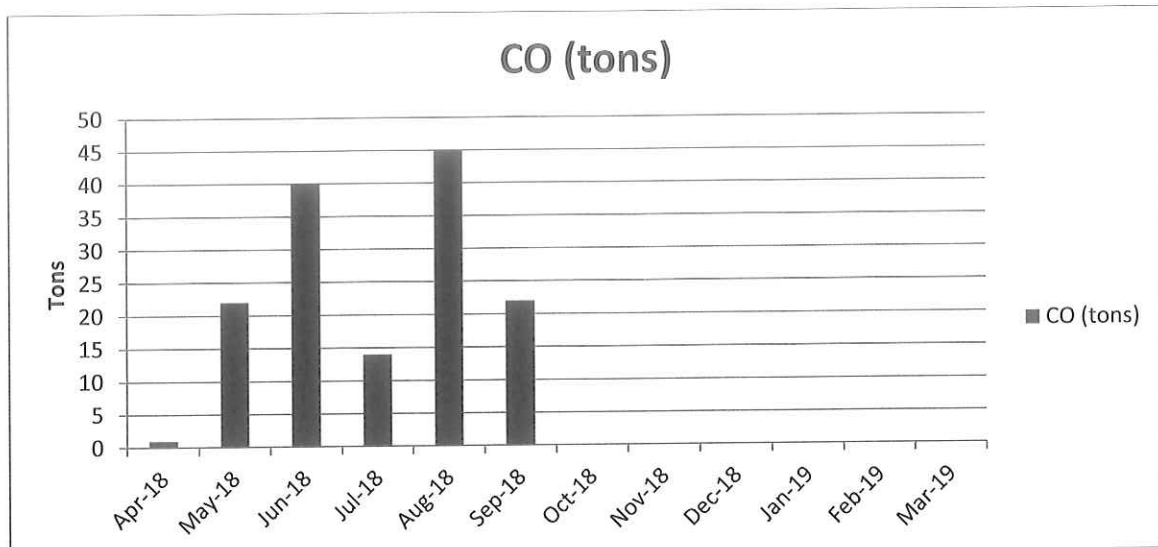


Fig 6 Unit 01 Coal consumption from Apr 18 until Sep 18

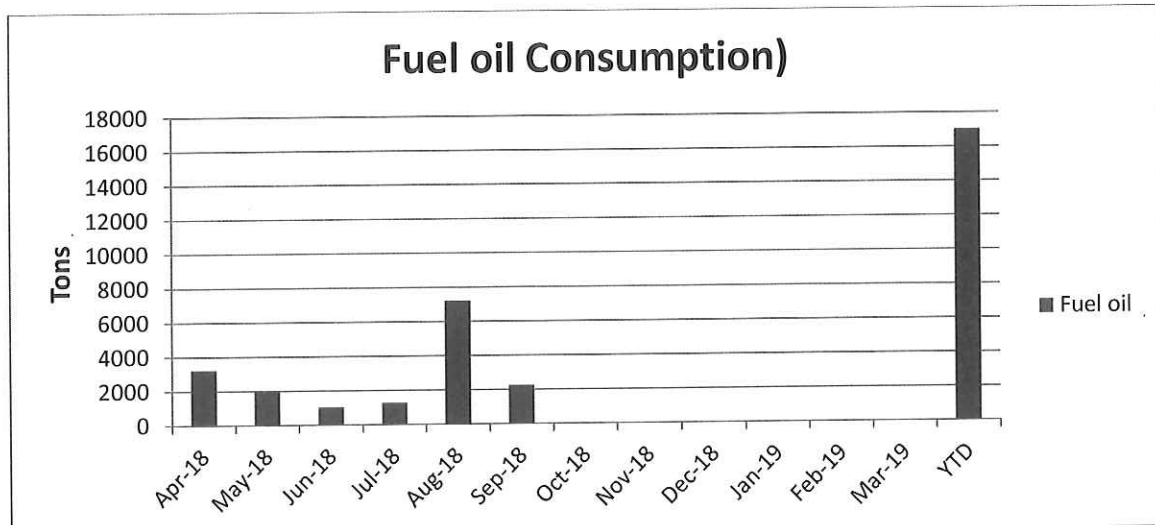


Fig 7 Fuel oil consumption from Apr 18 until Sep 18

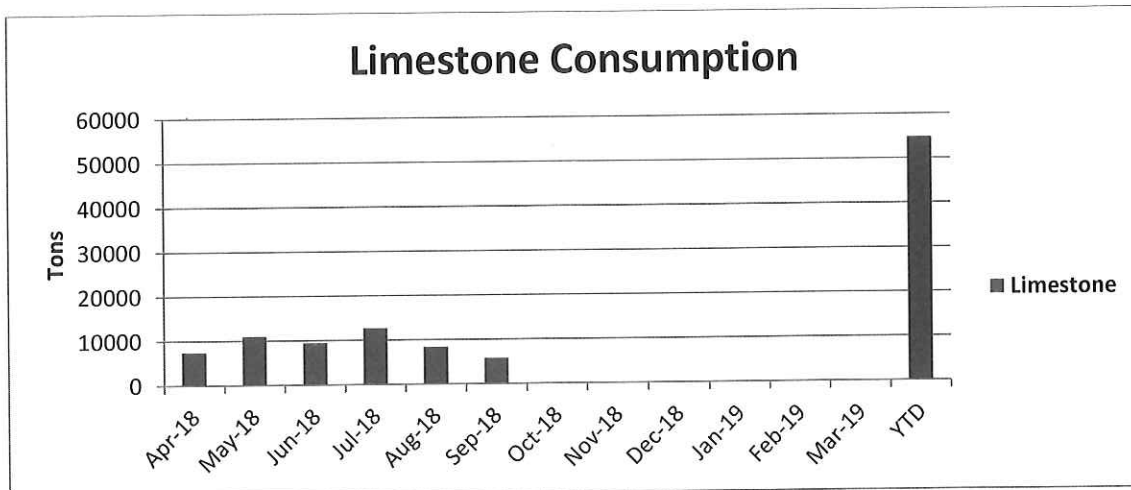


Fig 8: Monthly Limestone consumption from Apr 18 until Sep 18

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5. Compliance Audit Reports

No audit has taken place during this period.

6. Major Upgrades project

No major projects have been undertaken at Kusile Power Station during this period, other than those that form part of the station's construction process e.g. Unit 01 PJFFP bags have been replaced during April 2018. Kusile Power Station is still under construction and only one Unit 01 is commercial operational.

7. Correlation Test

The correlation test were carried out on Unit 1 flue in west stack on 14 – 20 January 2018 and report dated 18 April 2018 was submitted to your office on the 10th May 2018.

8. Greenhouse gas emission

The greenhouse gas emissions figures are reported in tables 1 above.

9. Complaints

No complaints received during this period.

10. Conclusion

The rest of the information demonstrating compliance with the emission license conditions is supplied in the month emission reports sent to your office. This includes daily average emissions.