

Mr Vusi Mahlangu
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Date:
30 May 2018

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Ref: Kendal Power Station Annual Emissions Report

Dear Mr. Mahlangu

KENDAL POWER STATION'S ANNUAL EMISSIONS REPORT FOR FY 2017/18

This serves as the annual report required in terms of Section 7.6 in Kendal Power Station's Atmospheric Emission License, as well as in terms other reporting requirements listed in the Minimum Emission Standards. The emissions are for Eskom's 2017/18 financial year, which is from 1 April 2017 to 31 March 2018. Verified emissions of particulates, SO₂ and NO_x as measured by installed CEMS and CO₂ and N₂O as calculated, are also included.

Name, description and reference number of plant as specified in the AEL:

Name of facility	Eskom Holdings SOC Limited – Kendal Power Station
Description of facility	Power Generation
Reference number of plant	AEL License No: 17/AEL/MP312/11/15

Emissions Trends:

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

Table 1. General oversight of emissions at Kendal Power Station 2017/2018

Power Station	Coal-fired emissions (tons/annum)	Fuel-oil emissions (tons/annum)	Total (tons/annum)
Kendal Power Station	CO₂: [REDACTED]		
	N₂O: 143.44		N₂O: 143.44
	PM: 7 725.13		PM: 7 725.13
	SO₂: 270 387.00	SO₂: 582.71	SO₂: 270 969.71
	NO_x: 90 073.00		NO_x: 90 073.00

CO₂ removed due to commercial reasons

Risk and Sustainability Division
Environmental Management
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Eskom Holdings SOC Limited Reg No 2002/015527/30

KENDAL POWER STATION'S ANNUAL EMISSIONS REPORT FOR FY 2017/18

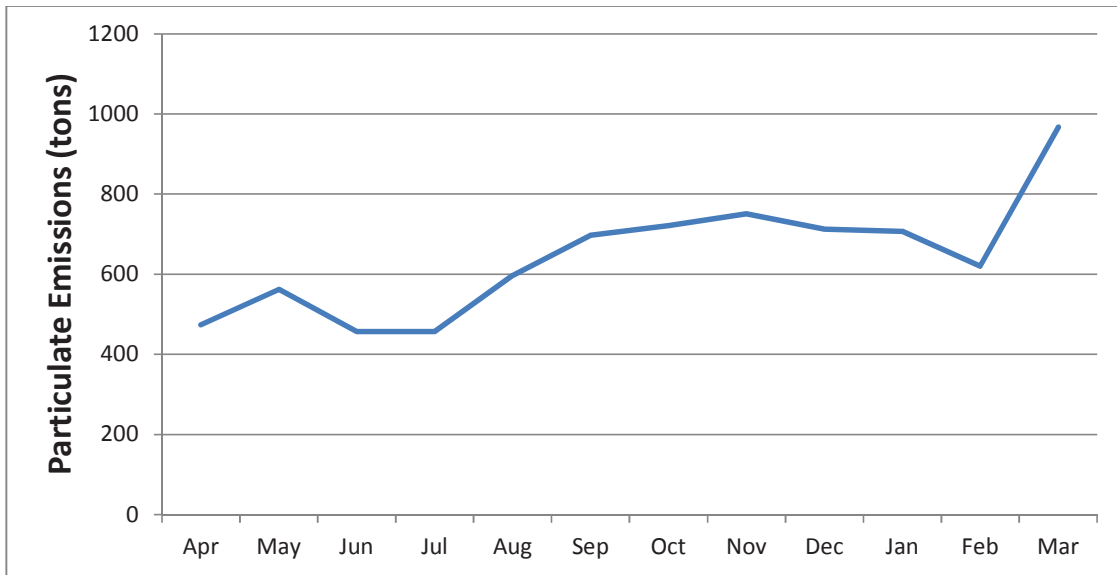


Figure 1. Monthly Particulate Emissions in tons from Kendal Power Station 2017/2018

Please note: Gaseous emissions, in particular, are largely dependent on the power generated by the power station, and thus the amount of coal burnt.

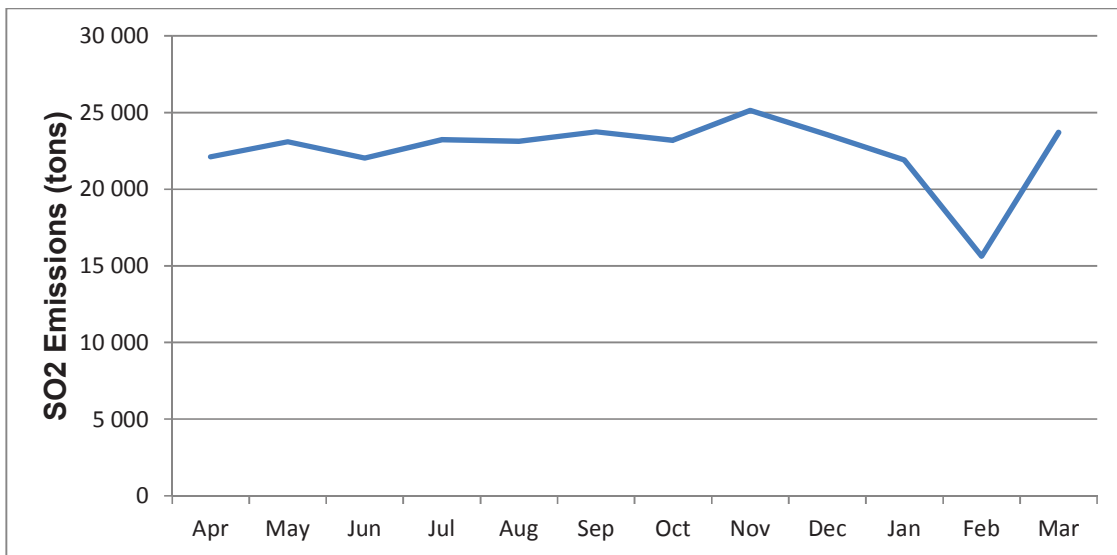


Figure 2. Monthly SO₂ Emissions in tons from Kendal Power Station 2017/2018

KENDAL POWER STATION'S ANNUAL EMISSIONS REPORT FOR FY 2017/18

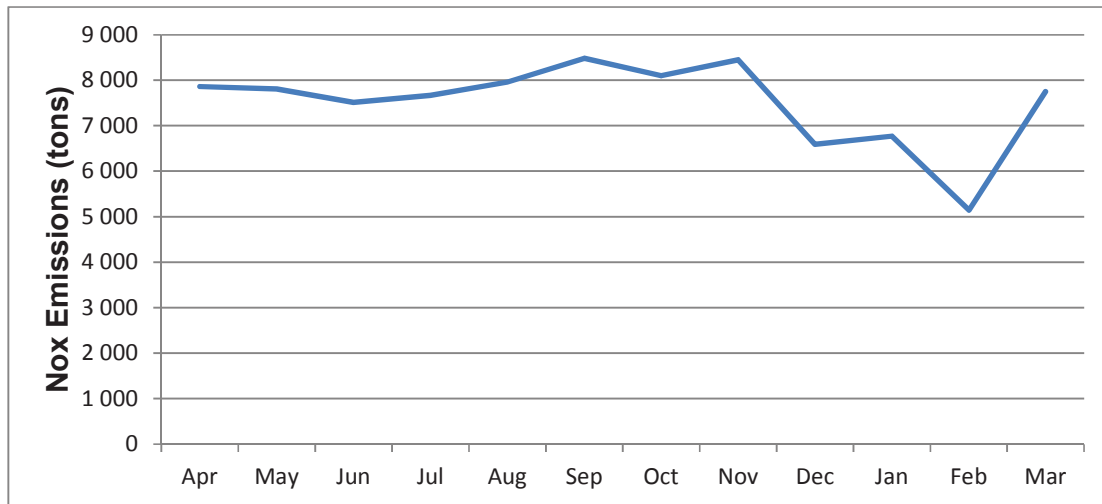


Figure 3. Monthly NO₂ Emissions in tons for Kendal Power Station 2017/2018

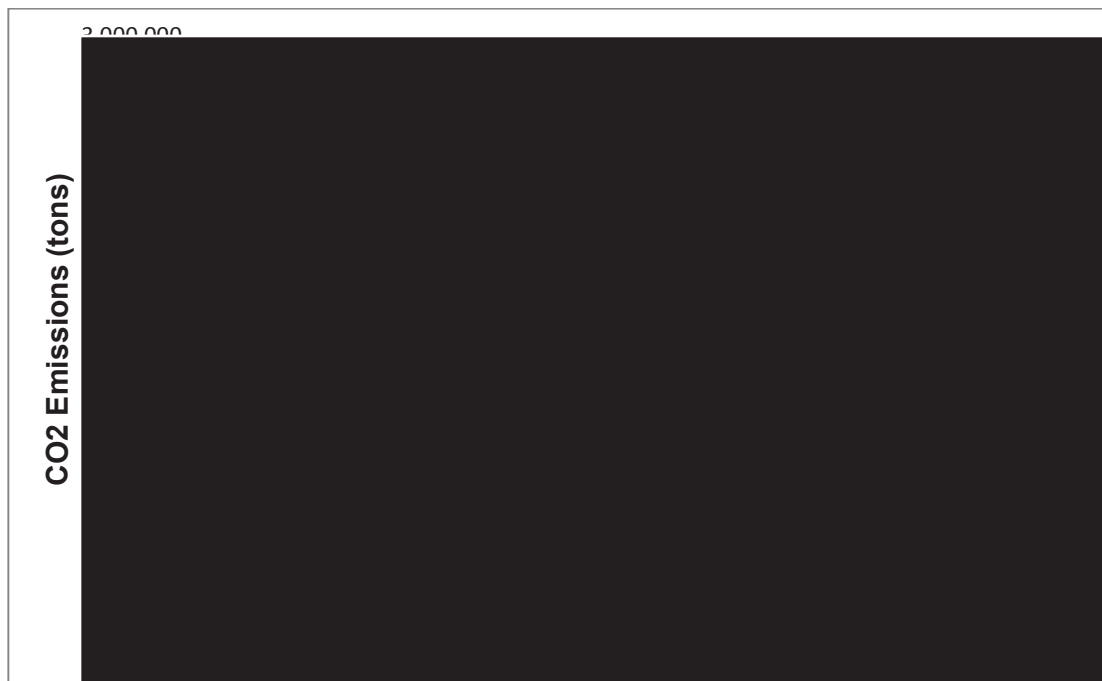


Figure 4. Monthly CO₂ Emissions in tons from Kendal Power Station 2017/2018

CO₂ removed due to commercial reasons

KENDAL POWER STATION'S ANNUAL EMISSIONS REPORT FOR FY 2017/18

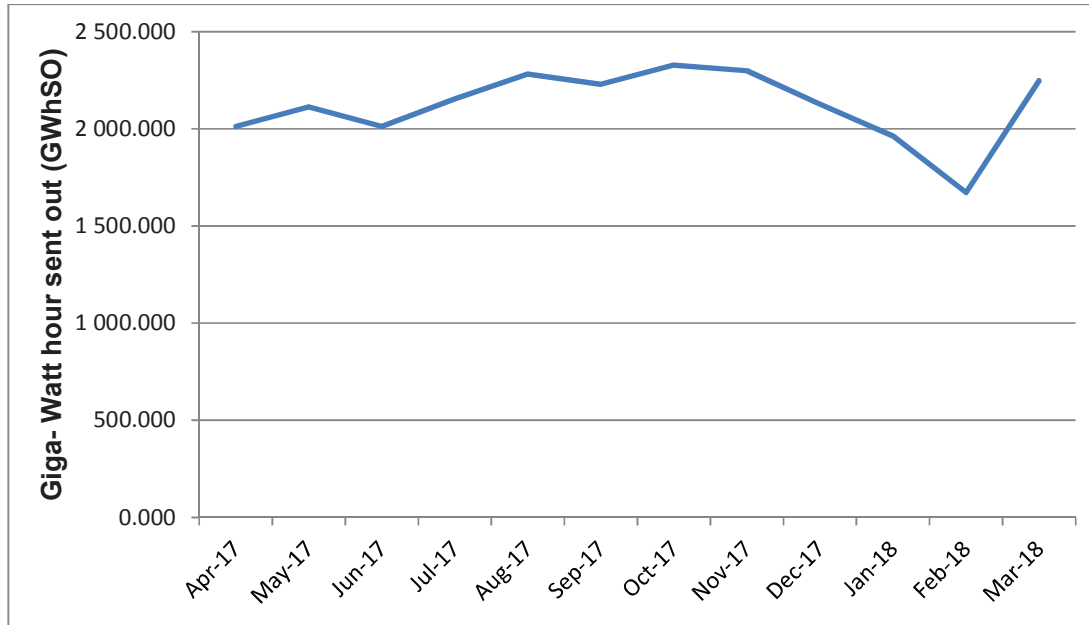


Figure 5. Monthly Energy sent out in GWh at Kendal Power Station 2017/2018

Figures showing compliance with the daily average emission limits of the respective pollutants have been presented to you in the monthly emission reports sent to your offices.

Monitoring data availability

Table 2. General oversight of monitoring data availability (in %) for Kendal Power Station 2017/2018 in terms of the number of full hours per annum that valid results were obtained for the CEMS in question (2017/18)

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
PM	99.58	99.67	99.75	99.67	99.8	99.1
SO ₂	99.39	99.84	99.16	96.92	98.14	97.76
NOx	98.375	99.84	98.15	96.83	98.15	97.72

Compliance Audit Report(s):

No compliance audit was conducted.

Major upgrades projects:

1. Design, manufacture and installation of 80 tons sulphur storage tank for redundancy – It was completed in September 2017
2. Refurbishment of all electrostatic precipitator transformers - Completed in September 2017
3. Ash Stacker and Spreader Tensioning and Luffing System - Completed
4. Coal and Ash Refurbishment Project-Completed
5. Outside Ash Gearbox Upgrade-Completed
6. Inside Ash Gearbox Upgrade-Completed

KENDAL POWER STATION'S ANNUAL EMISSIONS REPORT FOR FY 2017/18

Greenhouse gas emissions:

Greenhouse gas emissions as CO₂ and N₂O have been reported on in the above sections. These have been calculated.

Results of spot measurements or correlation tests:

Table 3. Overview of dates of last conducted CEMS verification tests for PM, SO₂ and NO_x (Please see annexure 2 for the verification test results)

Stack/ Unit	PM	SO₂	NO_x
1	See attached correlation test reports	December 2016	December 2016
2	See attached correlation test reports	November 2016	November 2016
3	See attached correlation test reports	May 2018	May 2018
4	See attached correlation test reports	September 2016	September 2016
5	See attached correlation test reports	February 2017	February 2017
6	See attached correlation test reports	September 2016	September 2016

Please see attached appendices 1, 2,3,4,5 and 6 for the recent parallel tests and correlation tests conducted at Kendal Power Station.

Exceedances within 48 hours grace period of PM emissions:

All of our exceedances are reported and explained in our monthly reports as submitted to your office on a monthly basis.

Unit 2 Section 30 Incident DEA Reference Number	Submission Date of Initial Notification	Remediation Measures	Closing Date of the Incident
14/7/6/2/4/2/1237	2018/03/16	Electrostatic precipitators and an SO ₃ plant are installed to control particulate emissions. The dust handling plant is continuously monitored and maintained. Emission levels are also continuously monitored.	28/05/2017

NAEIS reporting:

Kendal Power Station submitted its annual report on the NAEIS system by the 31 March 2018.

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

Khehla Shandu
KENDAL POWER STATION -ACTING GENERAL MANAGER

DATE: