

Mr Dan Hlanyane
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Date:
 7 June 2017

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Mr Hlanyane

GROOTVLEI POWER STATION ANNUAL EMISSIONS REPORT 2016/17 FINACIAL YEAR

1. This is the emissions annual report in terms section 7.6 of the Grootvlei Power Station Atmospheric License (**GPS/0015/2015/FO2**).
2. 2016/17 Emissions Summary Total Table In Tons Per Annum

PM	4797.99
CO ₂	5743113
N ₂ O	94.164
SO ₂	39112
NO _x	19395

3. Monthly pollutant Emission trends 2016/17

Month	PM(mg/ Nm ³)	SO ₂ (tons)	NO _x (tons)	CO ₂ (tons)	N ₂ O(tons)
April 2016	315.1	4797	2656	817489	13.438
May 2016	346.1	3535	1895	562333	9.269
June 2016	226.1	3836	1962	580501	9.534
July 2016	223.9	3958	2264	685794	11.319
August 2016	177.0	2923	1400	417876	6.839
September 2016	130.9	2445	1105	324298	5.323
October 2016	111.4	3555	1544	449849	7.344
November 2016	129.6	4471	1781	516163	8.453
December 2016	64.7	970	490	142390	2.323
January 2017	81.7	4212	2037	593271	9.707
February 2017	2.8	1953	1059	309772	5.061
March 2017	20.5	2460	1202	343376	5.554

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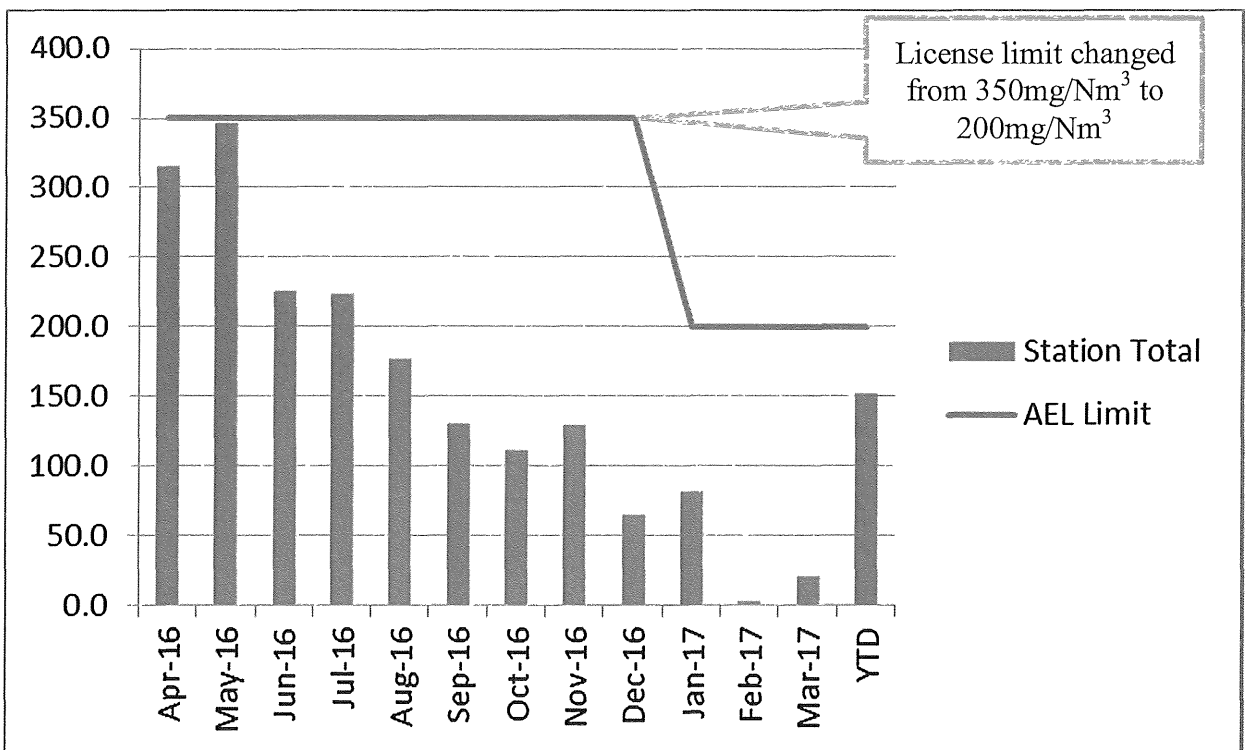
4. Major upgrade Projects

4.1 The FFP retrofit project is still underway. This project is aimed at replacing all ESP units with Fabric Filter Bag(FFP) .Unit 3 was completed in September 2016; unit 2 is completed yet to be commissioned, and unit 4 is been taken off load on an outage and the completion is envisaged to be in September 2017. This project was initiated and is aimed to reducing the particulate matter (PM) emissions. Significant improvement has been recorded as a gain on the retrofitted units.

5. Compliance Audit reports

No external Audit conducted. The commercial process is being initiated to get a service provider to conduct the external air quality audit which should be finalized by August 2017.

6. PM trends on a downward trajectory



7. Exceeded limits explanation

There were exceedances recorded for 2016/17 financial year. The root cause for exceedance was identified as the Electrostatic Precipitators (ESP)'s design limitations hence the FFP retrofit project.

Section 30 incidents were reported where applicable as is required by the Atmospheric Emissions License (AEL)

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8. Availability of Continuous Emissions Monitors (CEMS)

Annual average of CEMS availability		
Parameter	North stack	South stack
PM	99%	99%
SO ₂	65%	100%
NO _x	65%	100%

North Stack CEMS unavailability: There are challenges with O₂ probe on the north stack which is being sourced to rectify the problem. There were challenges with retrieving data from the O₂ probe which delayed the availability of SO_x and NO_x.

Parallel tests: Parallel test and stratification were done 06/12/2016 to 14/12/2016 on south stack (unit 4 to 6). North stack stratification and parallel test are not yet done due to unavailability O₂ probe which will be on site by the 30th July 2017.

Correlation tests: South and north stack correlation tests were done and correlation curves implemented.

9. Complaints received

One complaint was received during this reporting period.

Complaint details:

Name of complainant	Date of complaint	Nature of complaint	Status	Comments
TG Botha(farmer)	09 December 2016	Ground water Contamination	In progress	Complaint was forwarded to head office for further investigation

10. Implementation of the HPA action plan and Offset project

10.1 The Highveld Priority Area action plan is being implemented.

Fugitive dust monitoring is being carried out and reports are submitted to GSDM. Dust suppression activities are being constantly done and proved to be effective. The FFP retrofit project is almost complete with unit 4 to be completed in September 2017.

10.2 The offset project plan was developed and submitted to GSDM this was also piloted in Hendrina at Kwa-Zamokuhle community. As for Grootvlei it is envisaged that the project will be implemented in 2019.

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11. Compliance to statutory obligation

- 11.1 Generally we are in compliant with all our statutory obligation and licenses. Requirement, however are still working on the CEMS especially the gaseous monitors on both the south and north Stack to improve availability.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Gersh Bonga', written in a cursive style.

Gersh Bonga

POWER STATION MANAGER: GROOTVLEI