

City of Cape Town
 Air Quality Management
 246 Voortrekker Road
 VASCO
 7460

25 April 2017

Enquiries: H. Westman
 Tel: 021 9415856

Ref: WCCT 028

Dear Mr Gildenhuys

ACACIA POWER STATION’S ANNUAL EMISSIONS REPORT: April 2016 – March 2017

This serves as the annual report required in terms of Section 9.2 in Acacia Power Station’s Atmospheric Emission License (WCCT 028). The information represented stems from 2016/2017 Eskom’s past financial year (Eskom’s financial year extends from 1 April to 31 March).

Table 1. General overview of emissions at Acacia Power Station 2013/14 to 2016/2017

Emissions	Total (Tons/annum) 2016/2017	Total (Tons/annum) 2015/2016	Total (Tons/annum) 2014/2015	Total (Tons/annum) 2013/2014
PM	0.00545	1.43	1.8	1.4
SO ₂	0.0978	26	43	35
CO ₂	205.15	53 831	67 035	54 323

*Particulate matter (PM) is calculated: Emission factor (kg/l) x Fuel oil used (l)

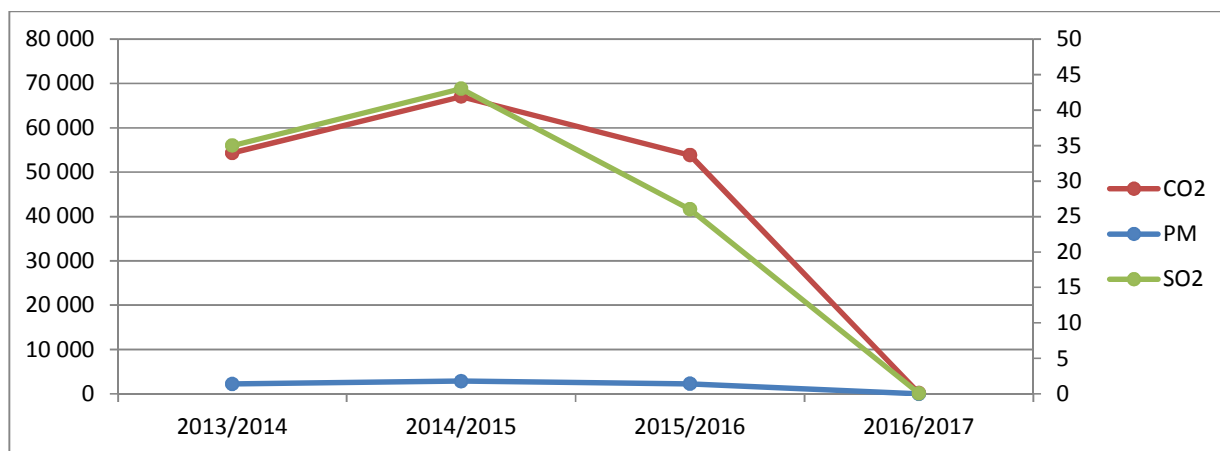


Figure1. General overview of emissions at Acacia Power Station 2013/14 to 2016/2017

Generation Division (Peaking)
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Table 2. Fuel Use

Year	Fuel Used (Tons)	Fuel Type
2016/2017	65.21	Kerosene
2015/2016	17 111	Kerosene
2014/2015	21 308	Kerosene
2013/2014	17 267	Kerosene

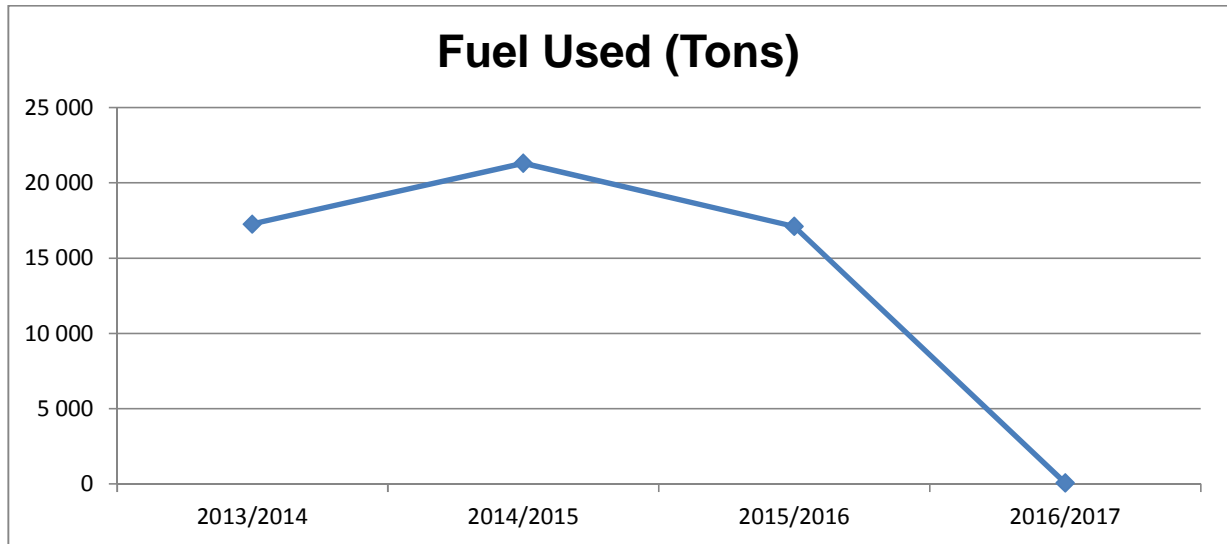


Figure 2. Acacia Power Station Fuel Use 2013/2014 to 2016/2017

Table 3. Total Production (MWh)

Year	Energy Sent Out (MWh)
2016/2017	151
2015/2016	55 960
2014/2015	64 570
2013/2014	56 443

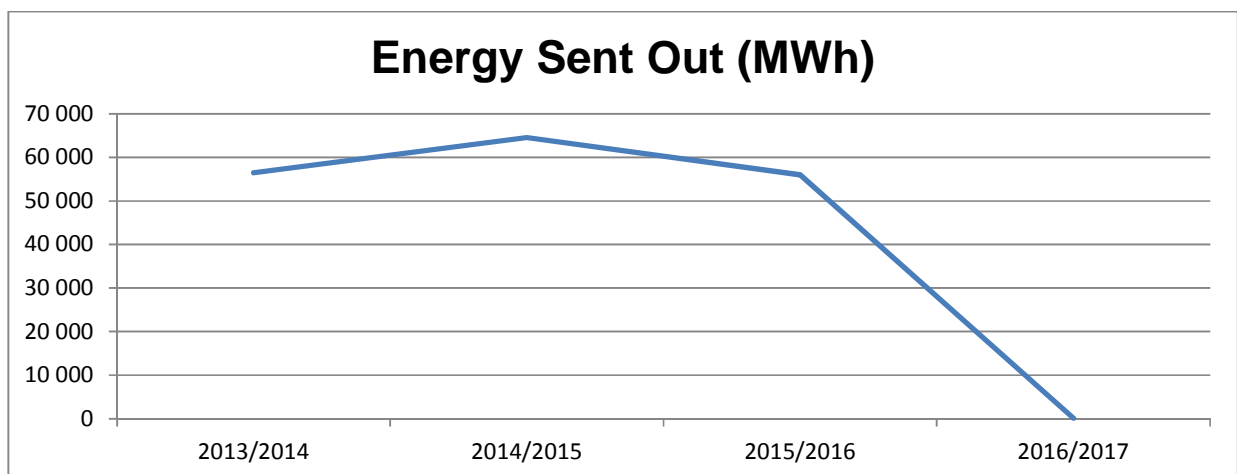


Figure 3. Total Production / Energy sent out (MWh) 2013/2014 to 2016/2017

Table 4. Total Emissions for year 2016/2017

Total Emissions Tons/annum 2016/2017 *Measured or Calculated	PM	SO ₂	CO ₂
	0.00545	0.0978	205.15
	Calculated	Calculated	Calculated

5. Emission monitoring: Date of last periodic emission monitoring

SGS conducted the last Source Emissions Monitoring tests on the 26th March 2015 that were attached in last year's annual report.

According to the report compiled, the test results were below the pollutant specific hourly emission limit for PM, SO₂ and NO_x (Table 1), showing that Acacia Power Station is in compliance with stipulated emission limits. The fuel at Acacia has not changed since these tests, and as such they are still representative of emissions from Acacia.

Annual emission testing:

Acacia Power Station does not have a Continuous Emission Monitoring System in place. Annual emission testing is prescribed as per AEL condition 7.4.1(c), to which a postponement request for annual emissions testing is currently in progress, based on cost versus benefit. The Acacia AEL Variation Request proposes the AEL be amended from annual to 3 yearly emissions testing.

APPLICATION FOR VARIATION OF ACACIA POWER STATION'S ATMOSPHERIC EMISSION LICENSE IN TERMS OF SECTION 46 (1) (d) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT 39 OF 2004) Ref: ENV16-L392

The variation request pertains specifically to Section 7.4 of the AEL, which guides the frequency of required emission testing measurements to be conducted at the station's point sources. Instead of annual emission testing, it proposed that Acacia Power Station conduct emission testing either a) once every three years or alternatively b) once the load factor is >5% for three consecutive months depending on which of the above occurs first from the date of the last emission tests undertaken. The City of Cape Town Licensing Authority requested that the decision will need to be assessed and granted by the Office of the National Air Quality Officer, Environmental Affairs. This decision is still pending.

An Ambient Air Quality Monitoring Station was commissioned during September 2015 and the data gathered will be used as a baseline, and to compare emissions of pollutants when in operation for the generation of electricity.

Table 5. Complaints

Total number of air quality complaints	2016/2017	2015/2016	2014/2015
	0	17	39

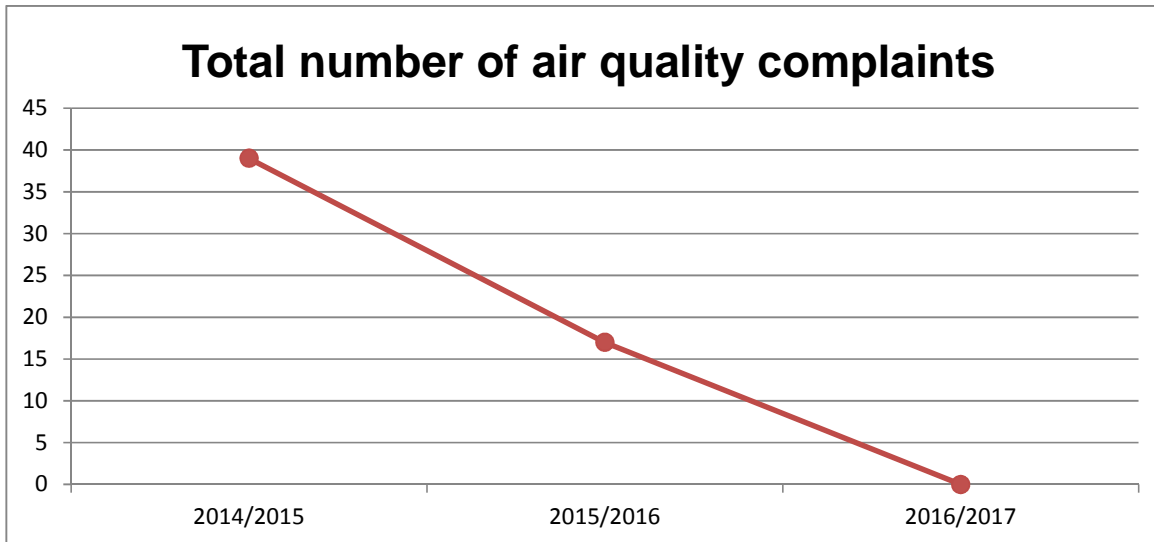


Figure 5. Complaints 2014/2015 to 2016/2017

6. Status of any significant diesel fuel leaks and repairs 2016_2017

None.

Leak Detection and Repair Programme (LDAR) is in place as per Daily plant inspection checklists.

7. Compliance Audits

The Environmental Management Inspectorate from City of Cape Town Air Quality Management Unit conducted a compliance inspection on the 8th November 2016, reviewing all conditions of the Acacia Power Station Air Emission Licence.

No findings were recorded and concluded fully compliant in terms of Acacia AEL WCCT 028.

There were a few issues raised to improve relations and reporting requirements with the City of Cape Town Air Quality Management, which were addressed and acknowledged.

Eskom Air Quality Centre of Excellence conducted a Desktop Compliance Review on the 10 May 2016, to assist the station in maintaining full compliance with its AEL. No outstanding actions.

8. Ambient Monitoring Results

Station Performance	2016/2017	2015/2016
Compliance to National Ambient Air Quality Standards	Compliant	Compliant
	No exceedances	No exceedances

Hoping the above will meet your satisfaction.

For any queries please do not hesitate to contact Hilton Westman on 021 -9415856.

Yours sincerely

Rodney Booth
Plant Manager
ACACIA POWER STATION