

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

12 May 2017

Enquiries:
 Tel: 021 573 6162

Ref: WCCT036

Dear Mr Gildenhuys

ANKERLIG POWER STATION'S ANNUAL EMISSIONS REPORT: April 2016 – March 2017

This serves as the annual report required in terms of Section 9.4 in Ankerlig Power Station's Atmospheric Emission License (WCCT036). The information represented stems from 2016/17 Eskom's past financial year (Eskom's financial year extends from 1 April to 31 March) in some cases trended over the last 2-5 years.

Table 1. General overview of emissions at Ankerlig Power Station 2014/15 to 2016/17

Power Station	Total (Tons/annum) 2016/2017	Total (Tons/annum) 2015/2016	Total (Tons/annum) 2014/2015
Ankerlig Power Station	NO _x : 34.96 PM: 0.46 SO ₂ : 0.26	NO _x : 3 656 PM: 0.17 SO ₂ : 669	NO _x : 5 463 PM: 54.09 SO ₂ : 683

Table 2. Annual Figures of energy sent out and fuel usage at Ankerlig Power Station 2012/13 to 2016/17

Year	Energy Sent Out (GWh)	Diesel used (tons)
2016/2017	20.939	5428.221
2015/2016	2503	669722
2014/2015	2351	638345
2013/2014	657.74	62740.21
2012/2013	2358.26	170888.12

Generation Division (Peaking)
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Greenhouse Gas Emissions

Table 3. Pollutant Emission Trends for 2016/2017 financial year

Financial Year 2016/2017							
Month	NO _x (kg) Calculated Values	CO (kg) Calculated Values	SO ₂ (kg) Calculated Values	CO ₂ (kg) Calculated Values	PM (kg) Calculated Values	Diesel consumed (tons)	GWh Sent Out
Apr 2016	9117.0	5427310	274.5	5427310	144.54	1705.861	6.215
May 2016	3303.0	1801247	277.7	1801247	47.97	566.151	2.039
June 2016	3849.0	2168378	267.5	2168378	57.75	681.544	2.548
July 2016	3402.0	1699195	331.7	1699195	45.25	534.075	1.610
Aug 2016	0	0	0	0	0	0	0.000
Sept 2016	2171.0	1393208	292.9	1393208	37.10	437.900	1.495
Oct 2016	3498.0	1841612	267.6	1841612	49.05	578.838	2.163
Nov 2016	1687.0	1106068	272.9	1106068	29.46	347.649	1.274
Dec 2016	2923.0	684104	326.3	684104	18.22	215.021	0.659
Jan 2017	0	0	0	0	0	0	0.000
Feb 2017	1035.0	813084	277.2	813084	21.65	255.561	0.922
Mar 2017	3975.0	336040	52.4	336040	8.95	105.621	2.014
Totals	34960.0	17270247.0	259.2	17270247	459.95	5428.221	20.939

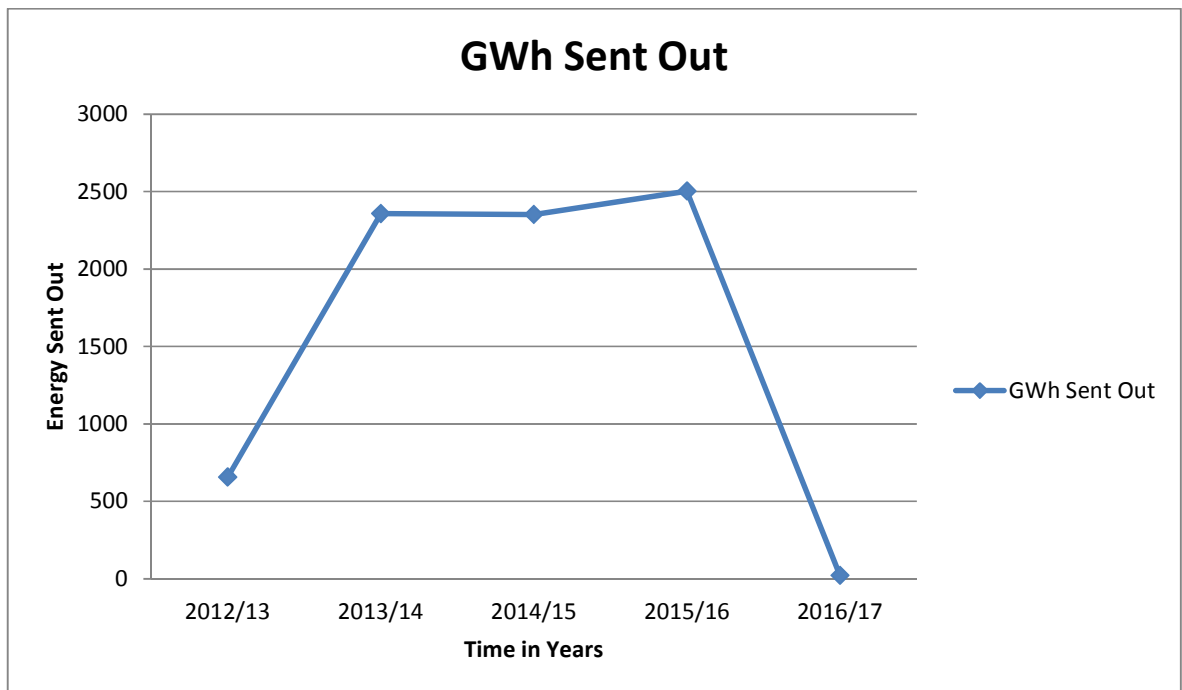


Figure 1. Annual GWh sent out between 2012 and 2017 for Ankerlig Power Station

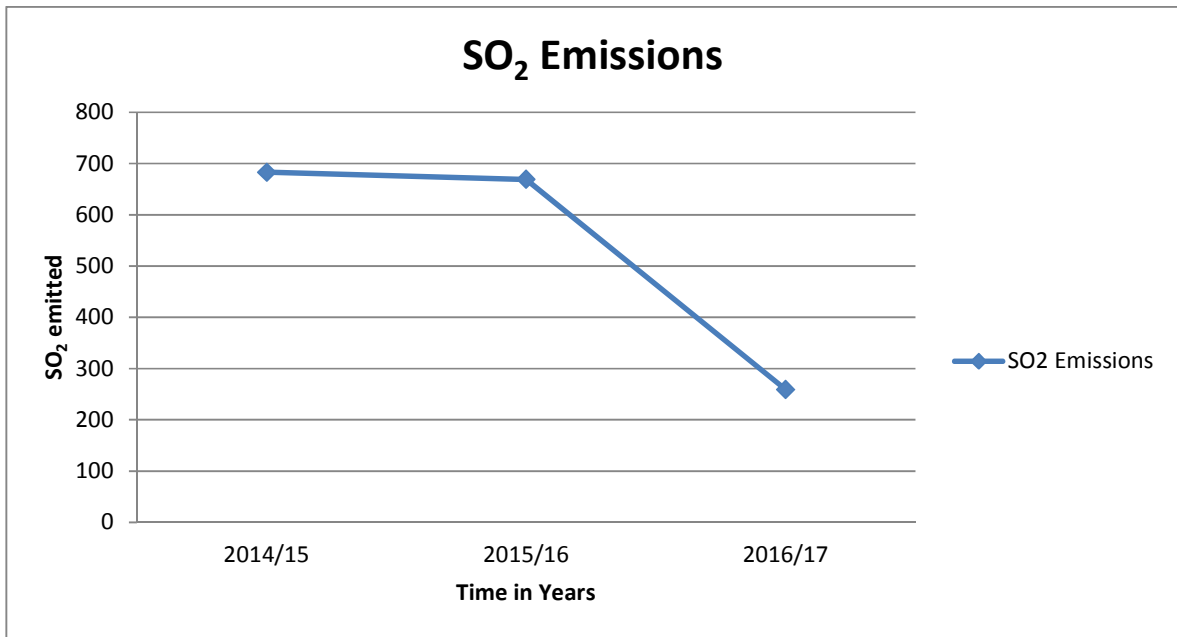


Figure 2. Annual SO₂ Emissions in tons between 2015 and 2017 for Ankerlig Power Station

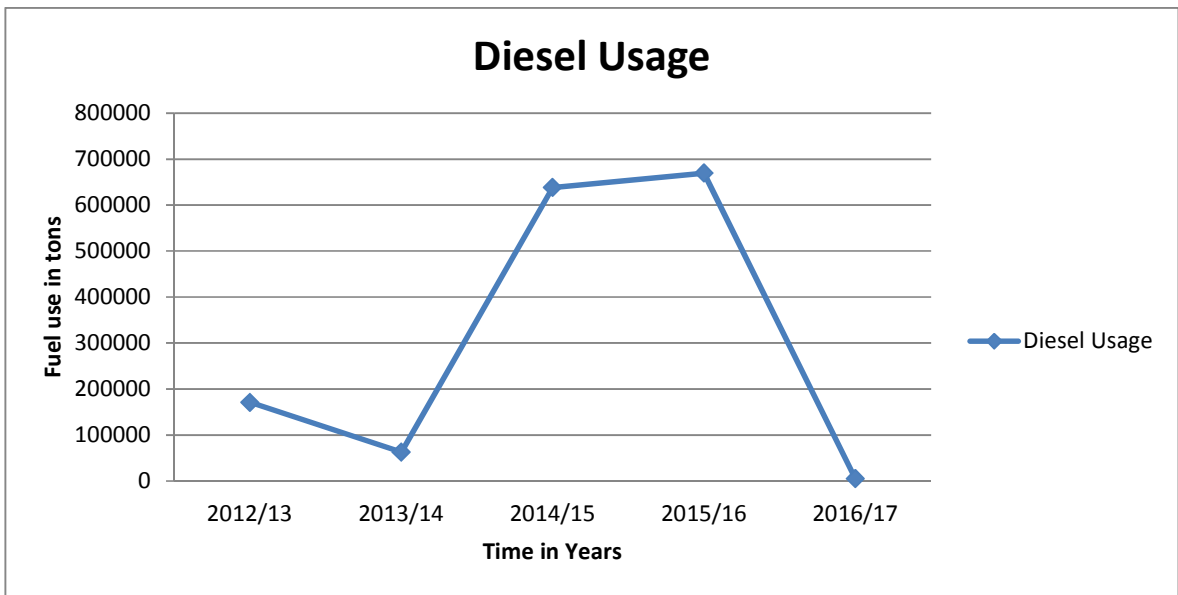


Figure 3. Annual fuel usage in tons between 2013 and 2017 for Ankerlig Power Station

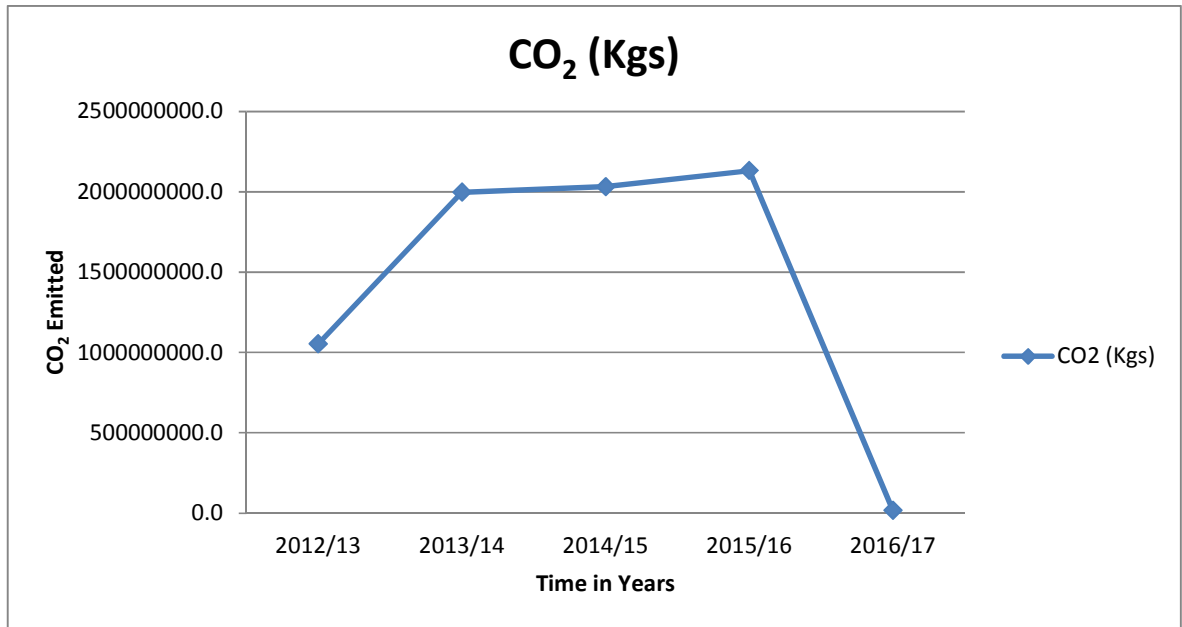


Figure 4. Monthly CO₂ Emissions in Kgs in 2016/17 for Ankerlig Power Station

Compliance Audit Report(s):

A gap analysis (internal compliance) review was undertaken to determine compliance with Ankerlig Power Station's AEL (WCCT036) as well as compliance with Minimum emission Standards in September 2016.

There were minor findings/recommendations which have subsequently been closed. These included the requirement for both the monthly and annual reports to cover Minimum Emission Standards reporting requirement as well as ensuring that the equipment required for the Ambient Monitoring Station to be functional is installed.

Ankerlig Power Station is in the final stages in procuring the services of a supplier to install the Particulate Matter monitor.

Major upgrades projects:

No major upgrades were undertaken in 2016/17; however, the station underwent the major inspection outages from May 2016 till about August 2017. As part of the major inspection outages, the burners of the generating units were changed to dual (diesel and gas capability) fuel burners for future use.

Continuous Emission Monitoring System

All 9 units are internally calibrated, annually and every second year calibrated by an external service provider. The last external calibration was done in September 2015, report submitted with 2016 annual report and the next calibration is due later this year.

Internal calibrations are scheduled on SAP and done when due annually. See attached reports. Those units not done in the past year, calibrations would be performed when these units are undergoing major inspection outages between May and August 2017.

Ambient Air Monitoring

Ambient Monitoring for the Ankerlig Power Station has not taken place since the issuing of the Atmospheric Emission Licence in 2014. Ankerlig Power Station is constant dialogue with the City of Cape Town, updating them on the processes involved in getting the monitoring station operational.

Abatement Equipment Control Technology Availability (%)

As reported, the station is busy undergoing major inspection outages. The abatement technology (low NO_x burners) was available 100% of the time while the unit was on generating mode.

Leak Detection and Repair Programme

The station has not had any major fuel leaks that needed reporting in terms of the Leak Detection and Repair Programme. Plant walk downs are performed at the start of every shift as per procedure.

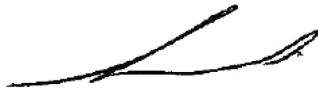
Complaints Register

No complaints received/registered for the period under review. No complains have been received for the last four years.

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. For any queries please do not hesitate to contact Maureen Dlulisa (021 573 6162).

Yours sincerely



Rodney Booth

ANKERLIG POWER STATION