Eskom

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Date:
11 May 2020

Enquiries:
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Ref: *ANK/2020/05*

Dear Ian

ANKERLIG POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF APRIL 2020

This serves as the monthly report required in terms of Section 9 in Ankerlig Power Station's Atmospheric Emission License (WCCT036). The emissions are for the month of April, these being SO_2, CO_2, PM and NO_x (as NO_2).

1 Raw Materials and Products

Table 1. Quantity of Raw Materials and Products used/produced for the month of April 2020

Raw Materials and Products used	**Raw Material Type**	**Unit**	**Maximum Permitted Consumption/ Rate (Quantity)**	**Total consumption in Month of April**
	Fuel Diesel	Tons/hour/unit	*40*	**848 479. 29L**
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Capacity Permitted per unit (MW)**	**Total production/Power sent out in Month of April**
	Energy	MWh	*170 MW per hour per unit*	**2 563.45 MW/h**
	Fuel use per hour per unit (L)		**Fuel efficiency Litres per MWH**	
	Unit 11: *34 636.36* ***Unit 12:*** *N/A* ***Unit 21:*** *33 838.17* ***Unit 22****: 34 770.03* ***Unit 31****: 29 677.43* ***Unit 32****: 34 352.72* ***Unit 41:*** *33 509.57* ***Unit 42****: N/A* ***Unit 43:*** *34 669.92*		***Unit 11****: 321.12* ***Unit 12****: 0* ***Unit 21:*** *322.57* ***Unit 22****: 323.70* ***Unit 31****: 340.58* ***Unit 32****: 326.27* ***Unit 41****: 313.79* ***Unit 42****: 0* ***Unit 43****: 321.74*	

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2 Abatement Technology

Table 2. Abatement Equipment Control Technology availability for the month of April

Associated Unit	Technology Type	Actual Utilisation (%) for the month of April
Unit 11	Low NOx burners	*100%*
Unit 12	Low NOx burners	*100%*
Unit 21	Low NOx burners	*100%*
Unit 22	Low NOx burners	*100%*
Unit 31	Low NOx burners	*100%*
Unit 32	Low NOx burners	*100%*
Unit 41	Low NOx burners	*100%*
Unit 42	Low NOx burners	*100%*
Unit 43	Low NOx burners	*100%*

Table 3: Tonnages and mg/Nm^3 for the month of April

	Date & time	CO (mg/Nm^3)	NO_x (mg/Nm^3)	PM (mg/Nm^3)	SO_2 (mg/Nm^3)
Hourly Licence Limit mg/Nm^3			**250**	**75**	**3500**
Unit 11	2020/04/30 19:00	6.5	150	0	95.6
	2020/04/29 20:00	8.9	177	0	97.7
	2020/04/14 19:00	14.7	139	0	102.9
Unit 12	N/A				
Unit 21	2020/04/30 19:00	4.4	146	0	0.2
	2020/04/29 20:00	2.9	172	0	0.2
	2020/04/28 19:00	5.9	179	0	3.4
	2020/04/14 19:00	5	133	0	4.9
Unit 22	2020/04/14 19:00	0.3	107	0.1	2.1
Unit 31	N/A				
Unit 32	N/A				

Unit 41	2020/04/28 19:00	5.9	181	0	0.6
Unit 42	N/A				
Unit 43	N/A				
Total Emission mass (Tons)		0.708	2.695	0	0.790

COMMENT: All pollutants measured were within allowed limits and no non-conformances were registered for the month under review.

Table 4: Each unit and respective days operating under normal operation (Please note the units rarely run for the entire day)

Unit	Hours operating under normal operation	Test-run hours	Total
11	3	9	12
12	0	0	0
21	4	9	13
22	1	2	3
31	0	3	3
32	0	5	5
41	1	2	3
42	0	0	0
43	0	3	3
Total	*9*	*33*	*42*

3 Monitoring Equipment: Continuous Emission Monitoring System (CEMS) availability

Table 5

Associated Unit	Technology Type	Actual Utilisation (%) for the month of April
Unit 11	CEMS	*100%*
Unit 12	CEMS	*100%*
Unit 21	CEMS	*100%*
Unit 22	CEMS	*100%*
Unit 31	CEMS	*100%*
Unit 32	CEMS	*100%*
Unit 41	CEMS	*100%*
Unit 42	CEMS	*100%*
Unit 43	CEMS	*100%*

4 Monitoring Equipment Calibration

Continuous Emission Monitoring System (CEMS) is always online unless a fault is reported. The system auto calibrates every four (4) hours and raises an alarm if auto calibration is out of spec. Onsite technicians calibrate the system with calibration gas annually.

5 Ambient Monitoring Station
The station has had the PM analyser installed and unfortunately due to weather related damages it had to be uninstalled. It was sent away to the supplier for quotation for repairs and the quote has been received. A PR is in the system to have the analyser repaired.

6 Load Factor: 0.27%

7 Leak Detection and Repair programme
No leaks were reported during April 2020

8 Complaints Register

Table 6. Complaints for the month of April 2020

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident	Dispersion modelling of pollutants where applicable	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
None	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

9 General

The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission reports sent to your office.

Trusting the above meets the reporting requirements specified within the stations' Atmospheric Emission License.

Do not hesitate to contact Maureen Dlulisa on 021 573 6162 for any related queries.

Yours sincerely

Pamela Mrubata
ANKERLIG POWER STATION