

**Ms Nompumelelo Simelane**  
Nkangala District Municipality  
PO Box 437  
Middleburg  
1050

Date:

*July 2023*

Enquiries: Lesiba Kgobe  
Tel: +27 13 699 7817

Ref: *Kusile Power Station AEL (17/4/AEL/MP311/12/01)*

Dear Ms. Simelane

**KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR JUNE 2023**

This serves as the monthly report required in terms of Section 7.6 in Kusile Power Station's Atmospheric Emission License: 17/4/AEL/MP311/12/01. The emissions are for the month of June 2023. Please take note that Unit 1, 2 and 3 are off due to the flue gas duct collapse incident that occurred in Oct 2022.

Hoping the above will meet your satisfaction.

Yours sincerely

Luvuyo Feni  
**ACTING GENERAL MANAGER**

**DATE:** *31/7/23*

**1. KUSILE POWER STATION MONTHLY EMISSIONS REPORT: Atmospheric Emission License 17/4/AEL/MP311/12/01**



**2 Raw Materials and Products**

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Jun-2023
	Coal	Tons	1 818 083	175 127
	Fuel Oil	Tons	5 533	270.184
	Limestone	Tons	72 017	8936

Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Production Rate Jun-2023
	Energy	GWh	3214.08	338.32
	Ash	Tons	796 300	53 413.6
	Gypsum	Tons	155 100	5 004.0
	RE PM	kg/MWh	not specified	0.015
	RE SOx	kg/MWh	not specified	0.235

**3 Energy source characteristics**

Fuel Characteristic	Units	Stipulated Range	Monthly Average Content
Coal CV	MJ/kg	not specified	20.390
Coal Sulphur	%	1.3	0.790
Ash in Coal	%	38	30.500
Fuel Oil (FO) CV	MJ/kg	not specified	34.400
Fuel Oil Sulphur	%	3	7.160

**4 Emissions Limits (mg/Nm<sup>3</sup>)**

Associated Unit/Stack	PM	SO <sub>2</sub>	NO <sub>x</sub>
North	50	1000	750
South	50	1000	750

**5 Abatement Technology (%)**

Associated Unit/Stack	Technology Type	Efficiency Jun-2023	Technology Type	Efficiency Jun-2023
Unit 1	Unit off			
Unit 2	Unit off			
Unit 3	Unit off			
Unit 4	FFP	99.984%	FGD	99.968%

Note: Both the FFP and FGD does not have bypass mode operation, hence plant 100% Utilised.

**6. Monitoring reliability (%)**

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	O <sub>2</sub>
Unit 1	Unit off			
Unit 2	Unit off			
Unit 3	Unit off			
Unit 4	100.0	100.0	100.0	100.0

**7. Emissions Performance**

Table 7.1: Monthly tonnages for the month of June - 2023

Associated Unit/Stack	PM	SO <sub>2</sub>	NO <sub>x</sub>
Unit 1	Unit off		
Unit 2	Unit off		
Unit 3	Unit off		
Unit 4	4.9	79	492
SUM	4.9	79	492



Table 7.2: Operating days in compliance to PM AEL Limit - June 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
Unit 1	Unit off					
Unit 2	Unit off					
Unit 3	Unit off					
Unit 4	30					4.2
<b>SUM</b>	<b>30</b>					

Table 7.3: Operating days in compliance to SO<sub>2</sub> AEL Limit - June 2023

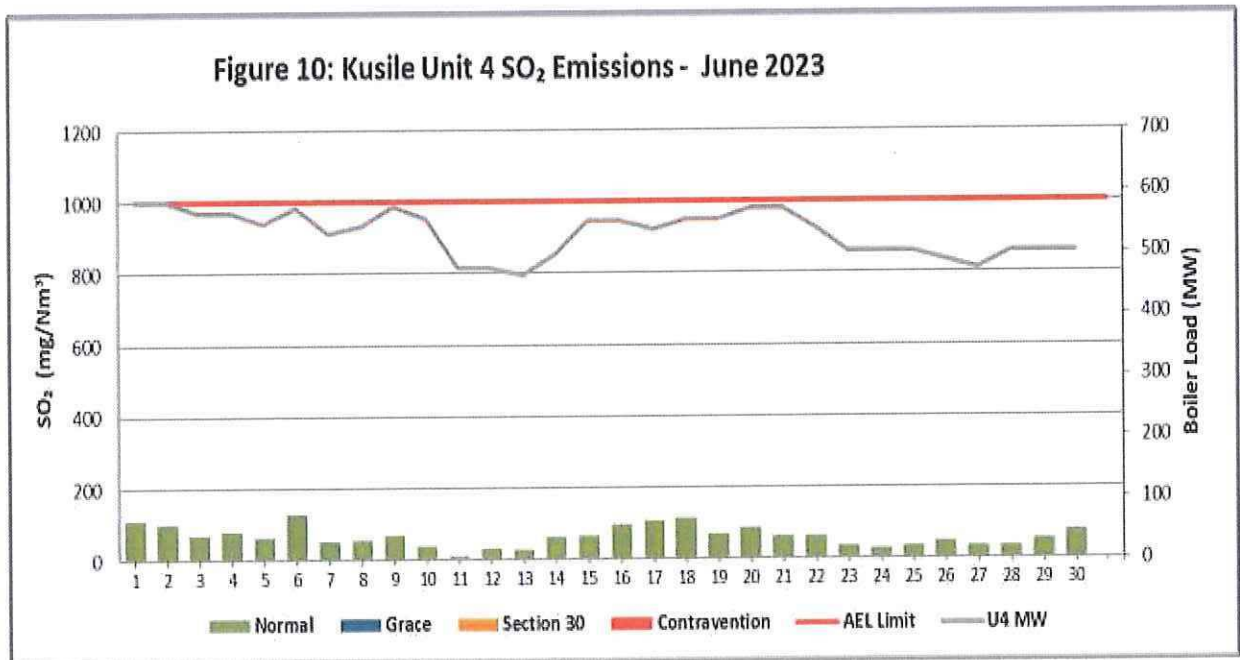
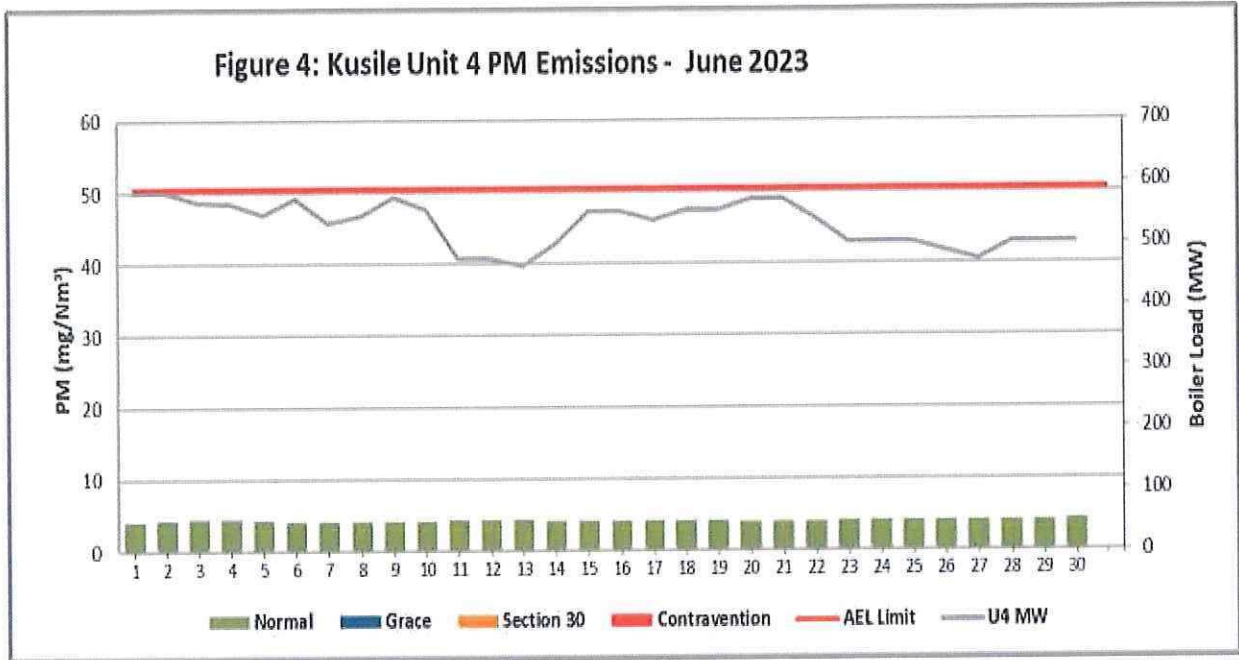
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO <sub>2</sub> (mg/Nm <sup>3</sup> )
Unit 1	Unit off					
Unit 2	Unit off					
Unit 3	Unit off					
Unit 4	30					63.9
<b>SUM</b>	<b>30</b>					

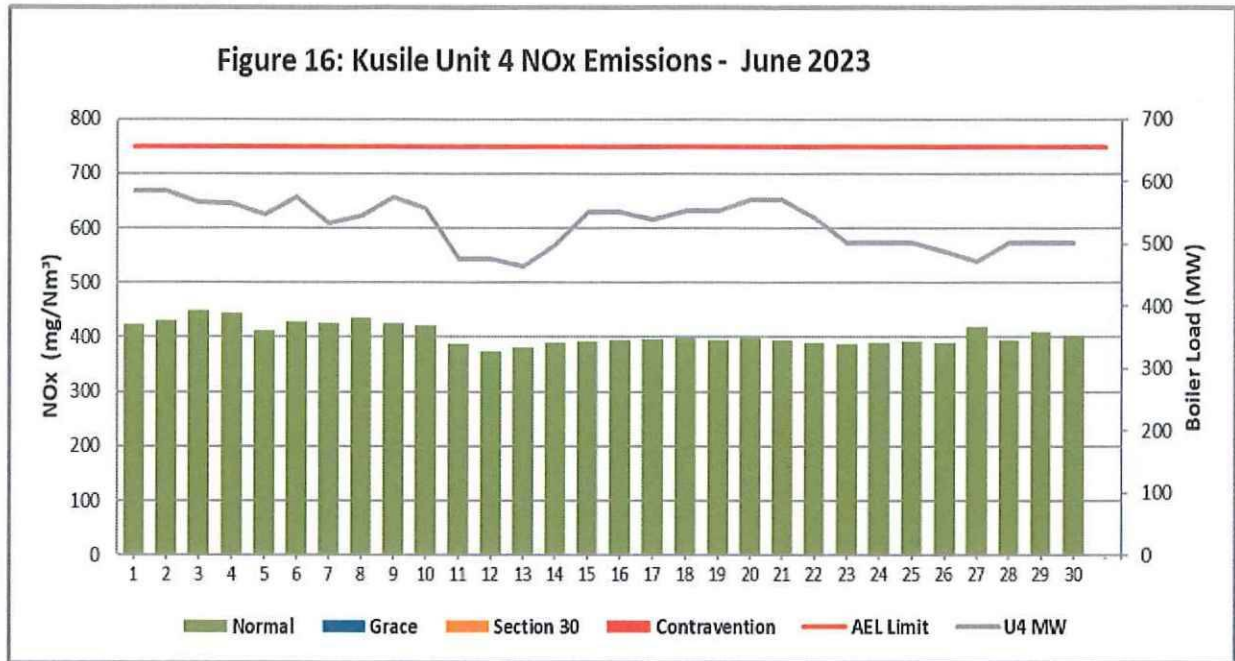
Table 7.4: Operating days in compliance to NO<sub>x</sub> AEL Limit – June 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO <sub>x</sub> (mg/Nm <sup>3</sup> )
Unit 1	Unit off					
Unit 2	Unit off					
Unit 3	Unit off					
Unit 4	30					405.7
<b>SUM</b>	<b>30</b>					

Table 7.5: Legend Description

Condition	Colour	Description
Normal		Emissions below Emission Limit Value (ELV)
Grace		Emissions above the ELV during grace period
Section 30		Emissions above ELV during a NEMA S30 incident
Contravention		Emissions above ELV but outside grace or S30 incident conditions





**8. Shut down and Light up information**

Unit No. 4	Event 1	
Breaker Open (BO)	1:35 am	2023/06/27
Draught Group (DG) Shut Down (SD)	7:12 am	2023/06/27
BO to DG SD (duration)	00:05:37	DD:HH:MM
Fires in time	2:30 am	2023/06/27
Synch. to Grid (or BC)	7:05 am	2023/06/27
Fires in to BC (duration)	00:04:35	DD:HH:MM
Emissions below limit from BC (end date)	not > limit	not > limit
Emissions below limit from BC (duration)	n/a	DD:HH:MM

## 9. Complaints

No complaints reported for the month of June 2023

Date and time complaint was received	Complaint received	Source code name	Root cause analysis	Calculation of impact/emissions associated with incidents and dispersion modelling of pollutants where applicable.	Measures implemented or to be implemented to prevent recurrence	Date by which measures will be implemented
N/A						