



Ms. Nompumelelo Simelane
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Date

April 2023

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

Dear Ms Simelane

KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR MARCH 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 March 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

Bongumusa A. Mashazi
GENERAL MANAGER

DATE: 04 May 2023

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 Mar-2023
	Coal	Tons	1 818 083	190 355
	Fuel Oil	Tons	5 533	48.902
	Limestone	Tons	72 917	7012

Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Production Rate Mar-2023
	Energy	GWh	3321.216	299.18
	Ash	Tons	663 583	51 205.4
	Gypsum	Tons	129 250	3 926.7
	RE PM	kg/MWh	not specified	0.032
	RE SOx	kg/MWh	not specified	0.424

3 Energy source characteristics

Fuel Characteristic	Units	Stipulated Range	Monthly Average Content
Coal CV	MJ/kg	not specified	21.750
Coal Sulphur	%	1.3	0.680
Ash in Coal	%	38	26.900
Fuel Oil (FO) CV	MJ/kg	not specified	42.300
Fuel Oil Sulphur	%	3	2.740

4 Emissions Limits (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO _x
North	50	500	750
South	50	500	750

5 Abatement Technology (%)

Associated Unit/Stack	Technology Type	Efficiency Mar-2023	Technology Type	Efficiency Mar-2023
Unit 1	FFP	<i>Units on outage</i>		
Unit 2	FFP			
Unit 3	FFP			
Unit 4	FFP	99.979%	FGD	99.946%

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

6. Monitoring reliability (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	<i>Units on outage</i>			
Unit 2				
Unit 3				
Unit 4	32.0	97.2	97.0	97.0

Note: The dust monitor failed and needed to change the probe, hence the monitor was not working for some part of the month and the issue has been resolve

7. Emissions Performance

Table 7.1 Monthly tonnages for the month of Mar - 2023

Associated Unit/Stack	PM	SO ₂	NO _x
Unit 1	Units on outage		
Unit 2			
Unit 3			
Unit 4	9.6	127	400
SUM	9.6	127	400

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
Unit 1	Units on outage					
Unit 2						
Unit 3						
Unit 4	25	0	0	0	0	8.8
SUM	25	0	0	0	0	

Table 7.3: Operating days in compliance to SO₂ AEL Limit - March 2023

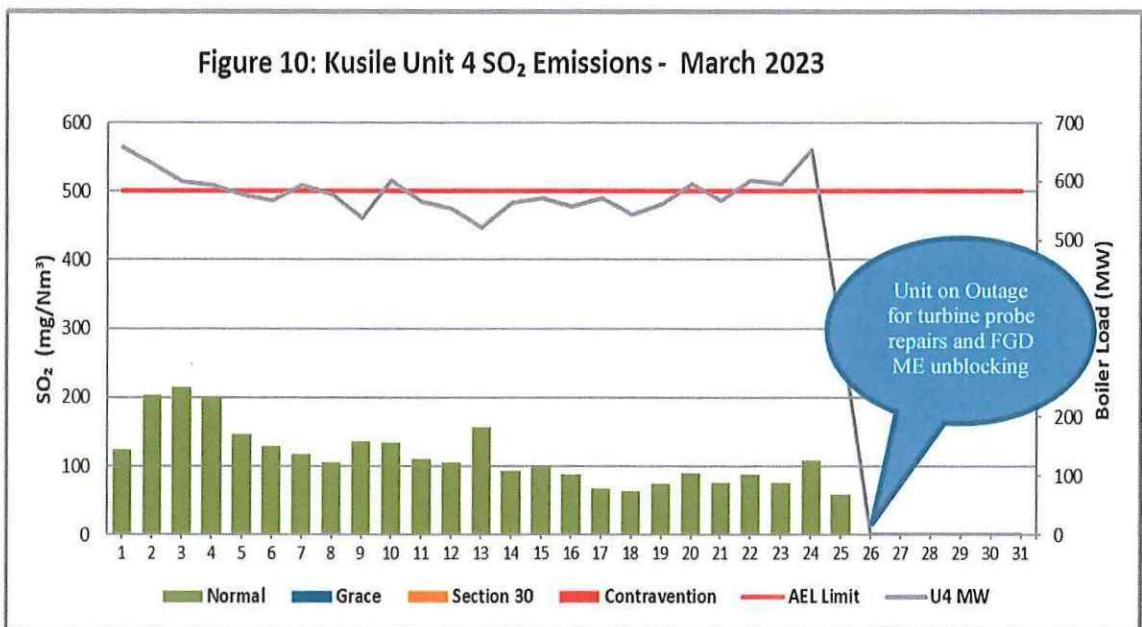
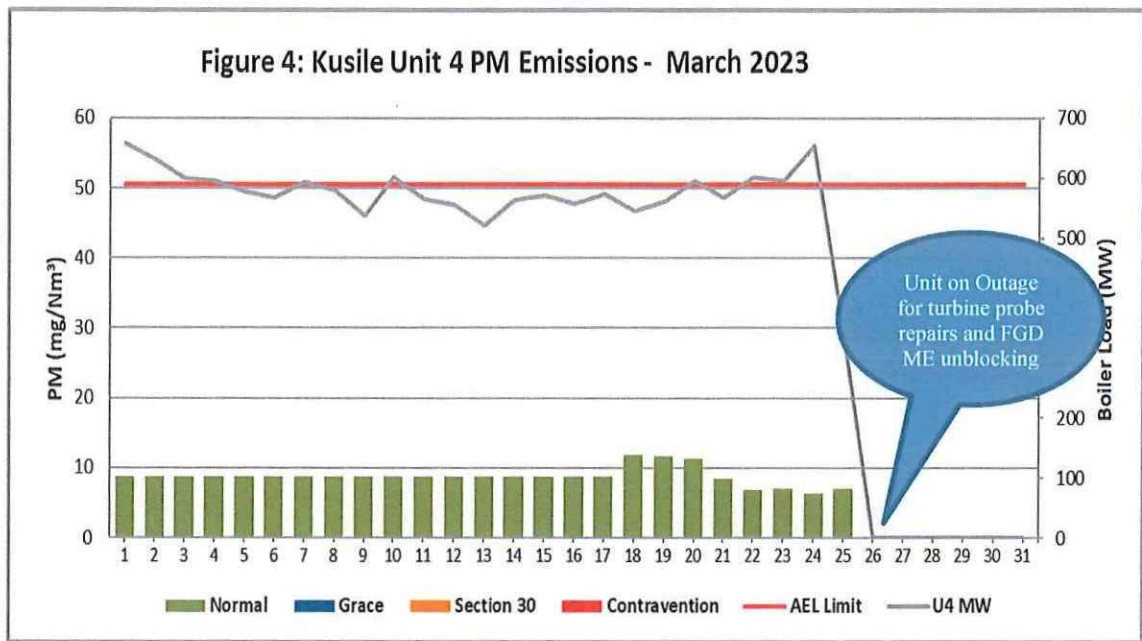
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
Unit 1	Units on outage					
Unit 2						
Unit 3						
Unit 4	25	0	0	0	0	114.8
SUM	25	0	0	0	0	

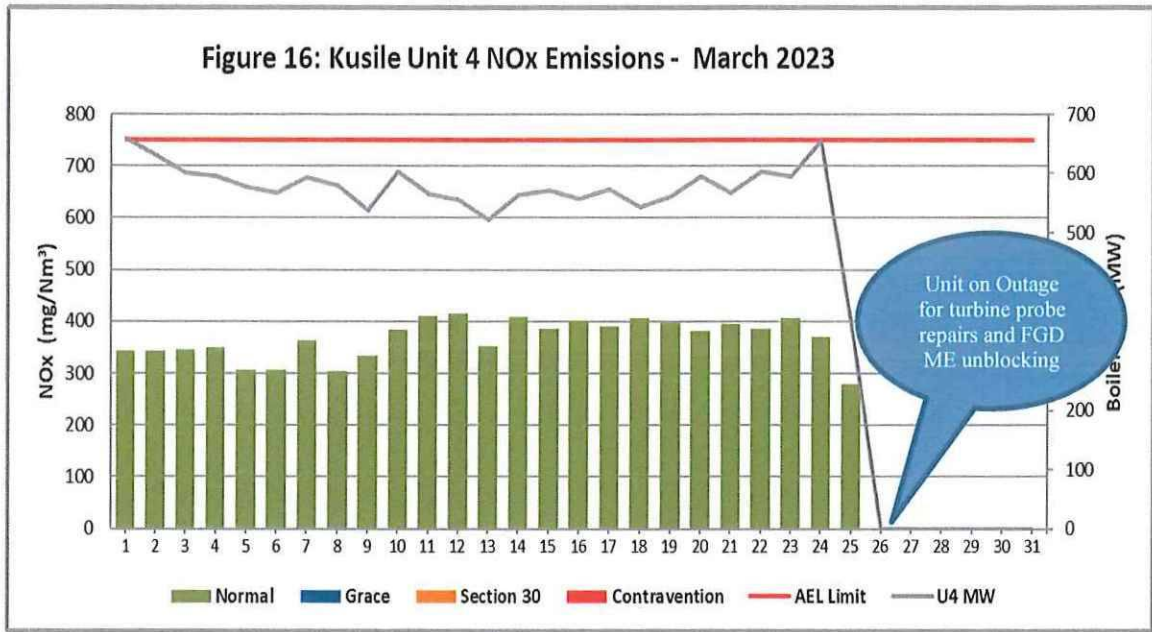
Table 7.4: Operating days in compliance to NO_x AEL Limit - March 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
Unit 1	Units on outage					
Unit 2						
Unit 3						
Unit 4	25	0	0	0	0	366.6
SUM	25	0	0	0	0	

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)	1:25 am	2023/03/25
Draught Group (DG) Shut Down (SD)	3:00 am	2023/03/26
BO to DG SD (duration)	01:01:35	DD:HH:MM
Fires in time		
Synch. to Grid (or BC)		
Fires in to BC (duration)		DD:HH:MM
Emissions below limit from BC (end date)		
Emissions below limit from BC (duration)		DD:HH:MM

9. Complaints

No complaints reported for the month of March 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						