Eskom	Monthly Report	Matla Power Station

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Content

1. Introduction

MATLA POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF FEBRUARY 2024

This document serves as the monthly emissions report required in terms of Section 7.6 of Matla Power Station Provisional Atmospheric Emission License (AEL), **17/4/AEL/MP312/11/14**

This report reflects Unit 1 to Unit 6 gaseous and particulate emissions performance against the AEL limit for the month of FEBRUARY 2024 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 02/2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 02/2025
	Coal	Tons/month	1 475 000	793 993
	Fuel Oil	Tons/month	3 500	574
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Capacity Permitted (Quantity)**	Production Rate in Month of 02/2025
	Energy	GWh	2 745	1 234
	Ash Produced	Tons/month	471 000	227 876

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 02/2025

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.486%	100%
	Electrostatic Precipitators (ESP)		
	Electrostatic Precipitators (ESP)		
Unit 4	Electrostatic Precipitators (ESP)	*99.469%*	100%
Unit 5	Electrostatic Precipitators (ESP)	*99.807%*	100%
Unit 6	Electrostatic Precipitators (ESP)	*Off*	*Off*

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

4. Energy Source Characteristics

Table 3: Energy Source Material Characteristics for 02/2025

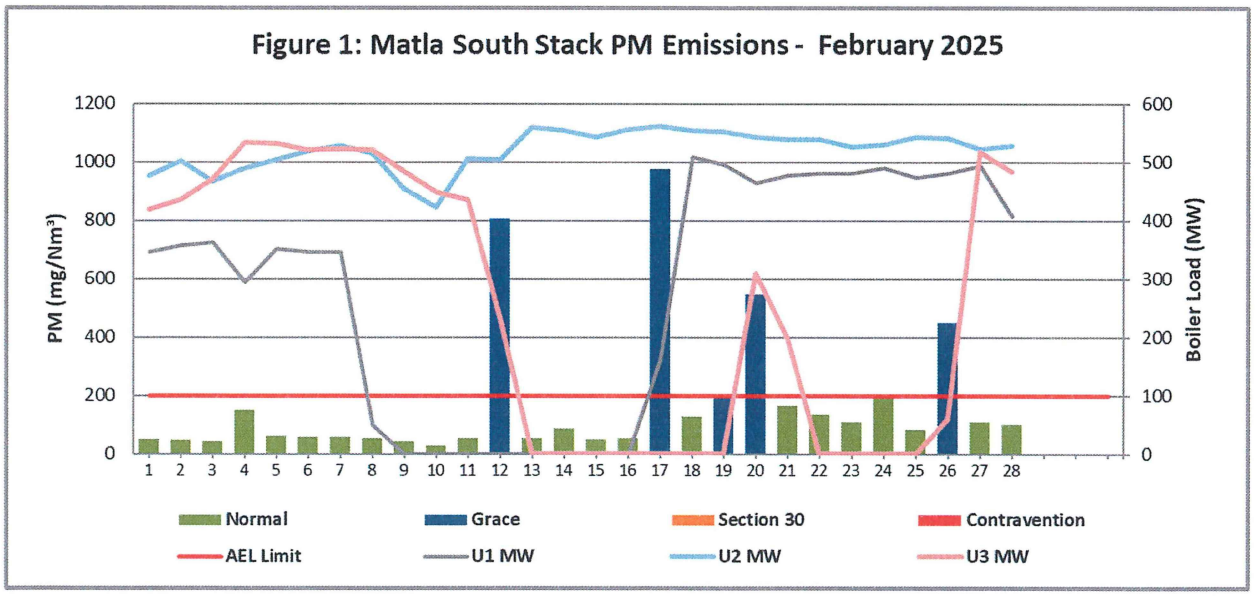
Characteristic	Stipulated Range (% by weight on a dry basis)	Monthly Average Content (% by weight on a dry basis)
	Coal	
Sulphur Content	0.8-1.1	1.00
Ash Content	21-40	28.70

5. Emissions Reporting

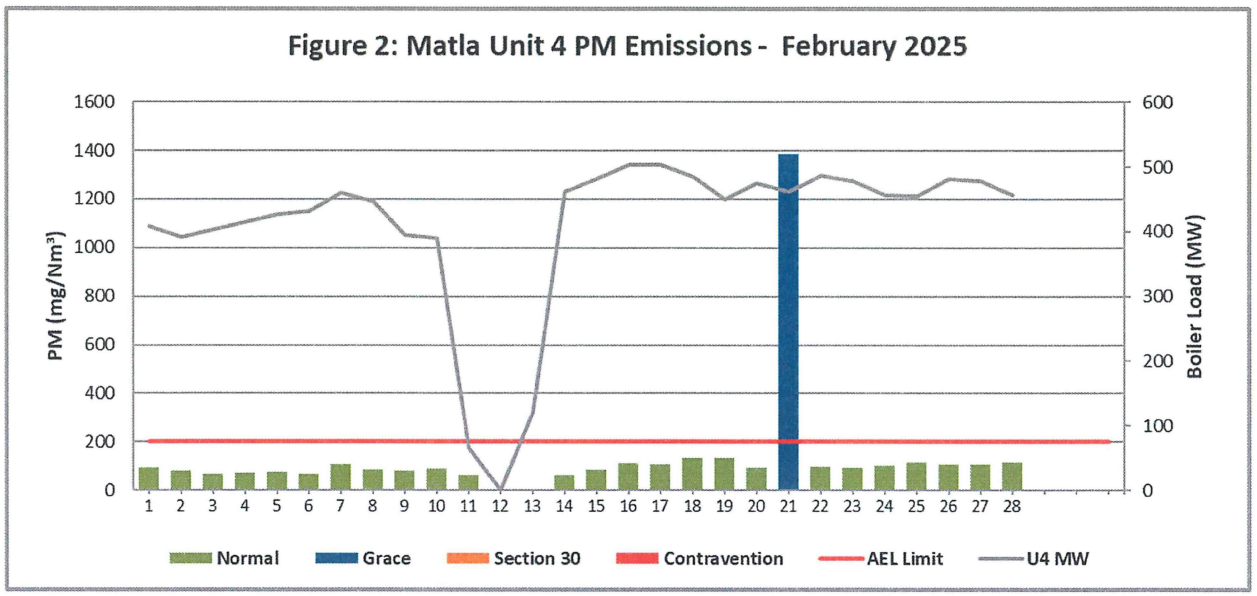
Table 4- Emission Limits are as follows:

SO_2 Monthly = 3500 mg/Nm^3	Dust Daily= 200 mg/Nm^3 (South Stack and Unit 4) Dust Daily= 100 mg/Nm^3(Unit 5 and 6)	NO_2 Daily= 1200 mg/Nm^3

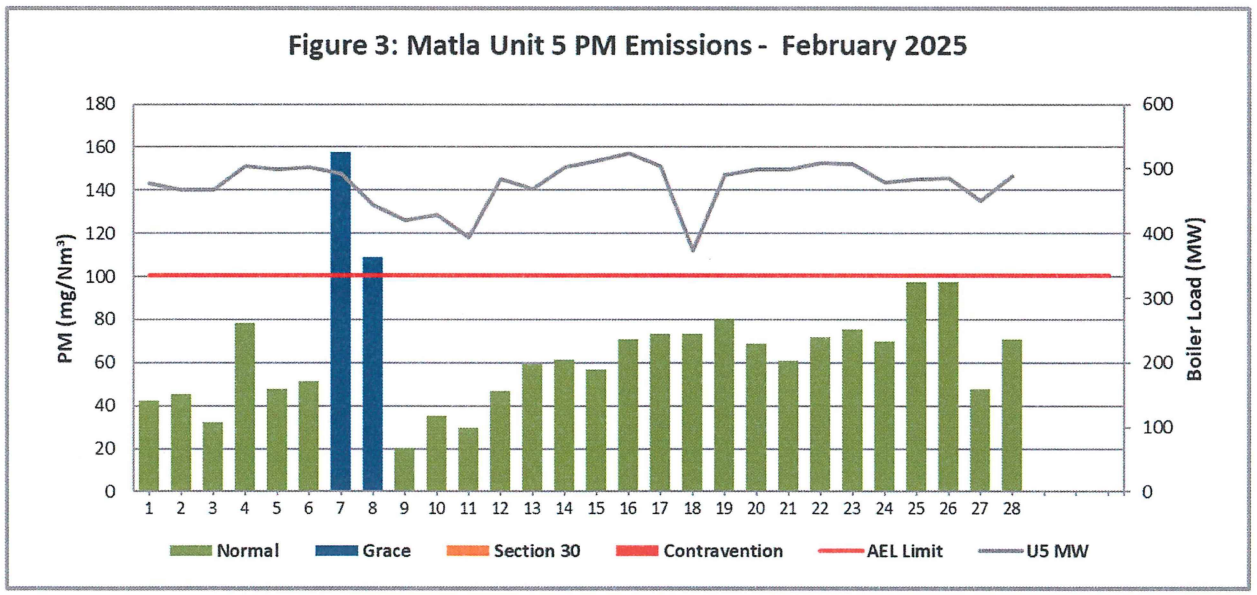
5.1 PM Daily Averages



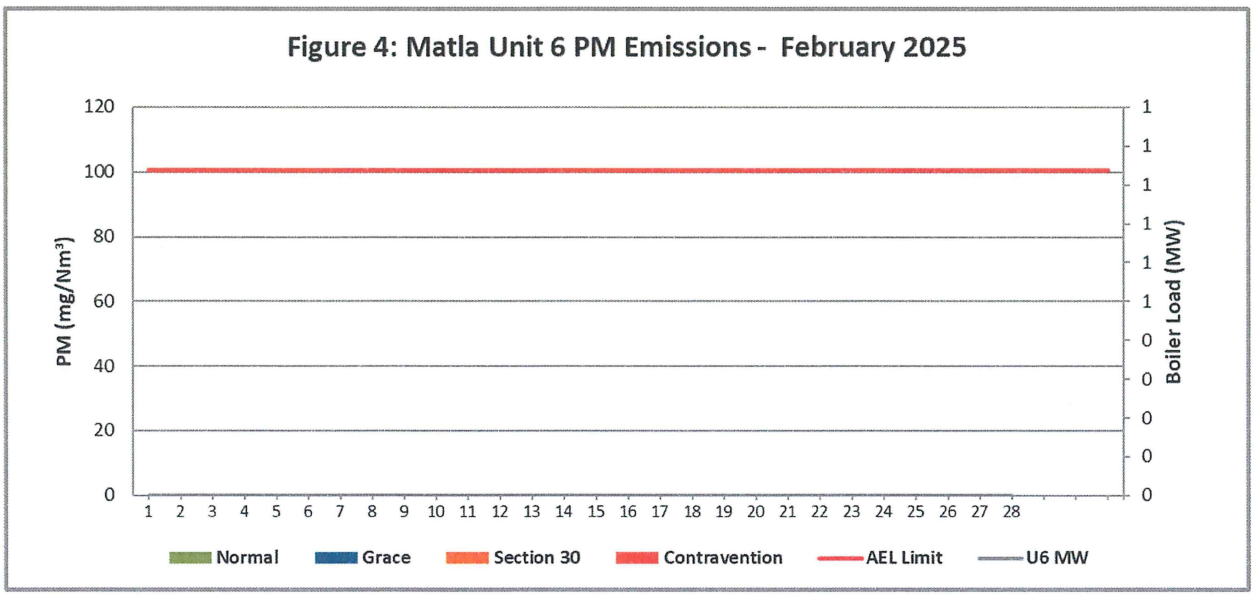
Matla South Stack Exceeded PM AEL limit of 200 mg/Nm^3 on the 12th of February 2025, due to Unit 3 shutdown and forced cooling. The exceedance on the 17th of February 2025 was due to unit 1 cold light-up. On the 19th of February 2025 unit 1 precip fields were poorly performing. On the 20th and 26th of February 2025 the exceedance was due to unit 3 light-up.



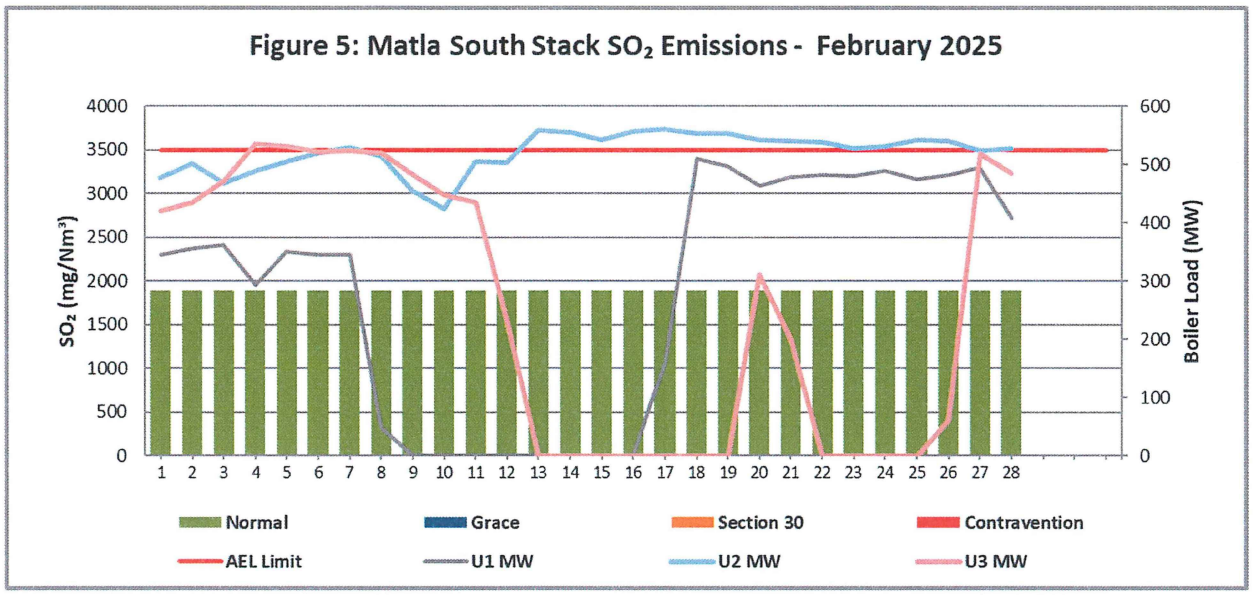
Matla Unit 4 Exceeded PM AEL limit of 200 mg/Nm^3 on the 21st of February 2025, due to All R/H precip fields which were off for transformer 4B flashover defect repairs.

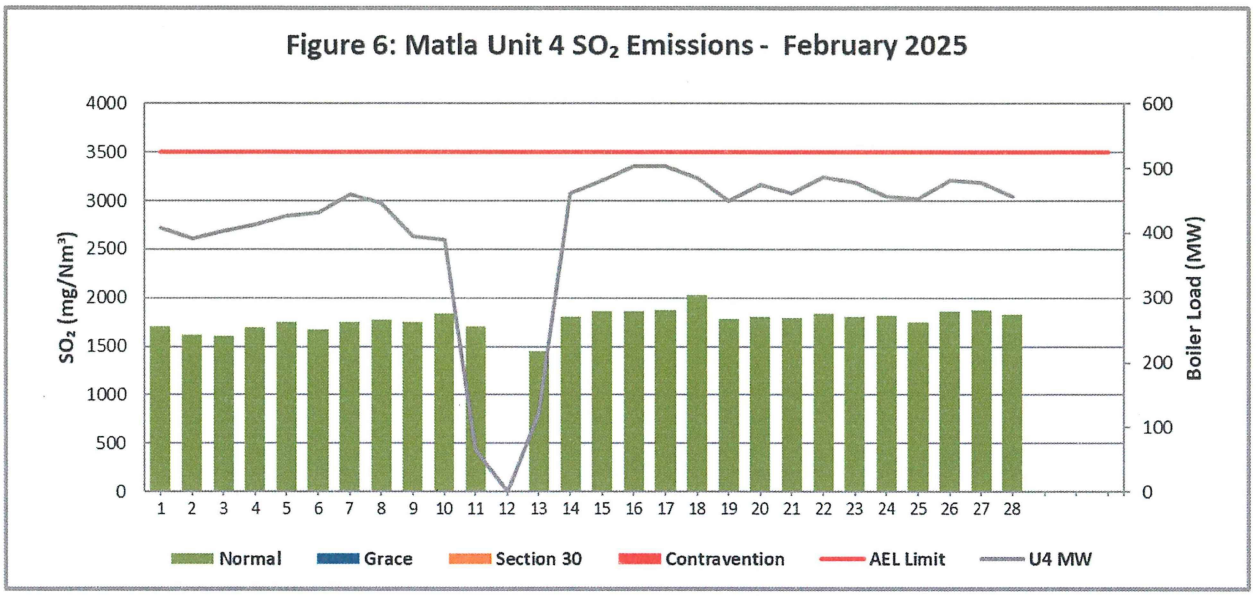


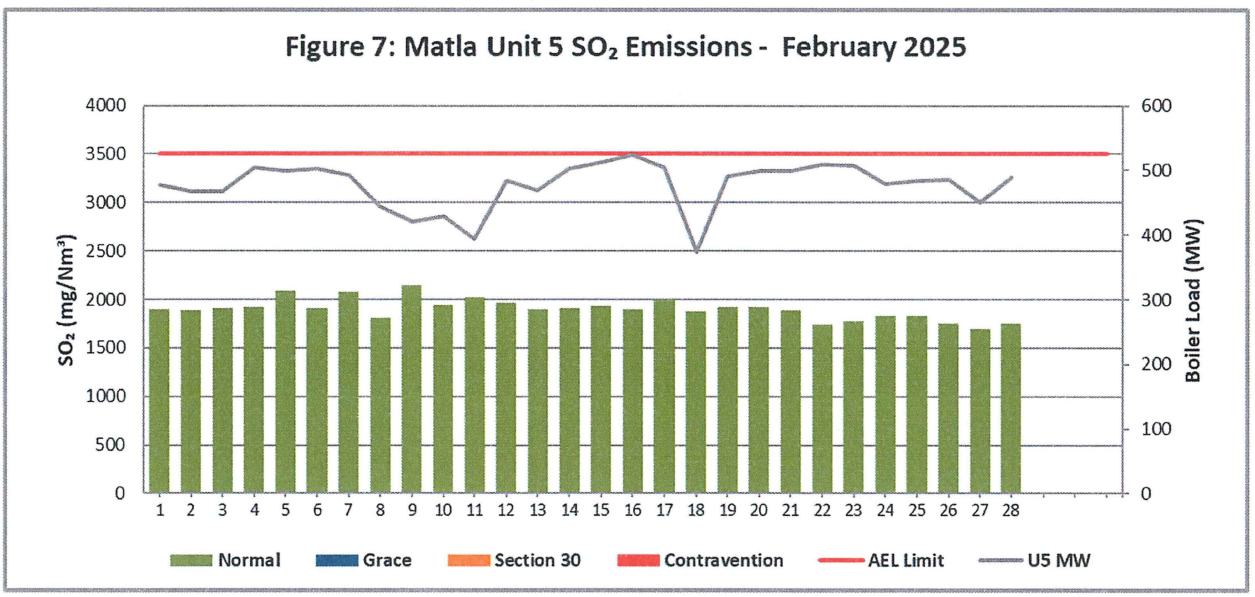
Matla Unit 5 Exceeded PM AEL limit of 100 mg/Nm^3 on the 7th and 8th of February 2025, due to SO3 plant that was off as a result of L/H Secondary Air Heater Temp that was low.

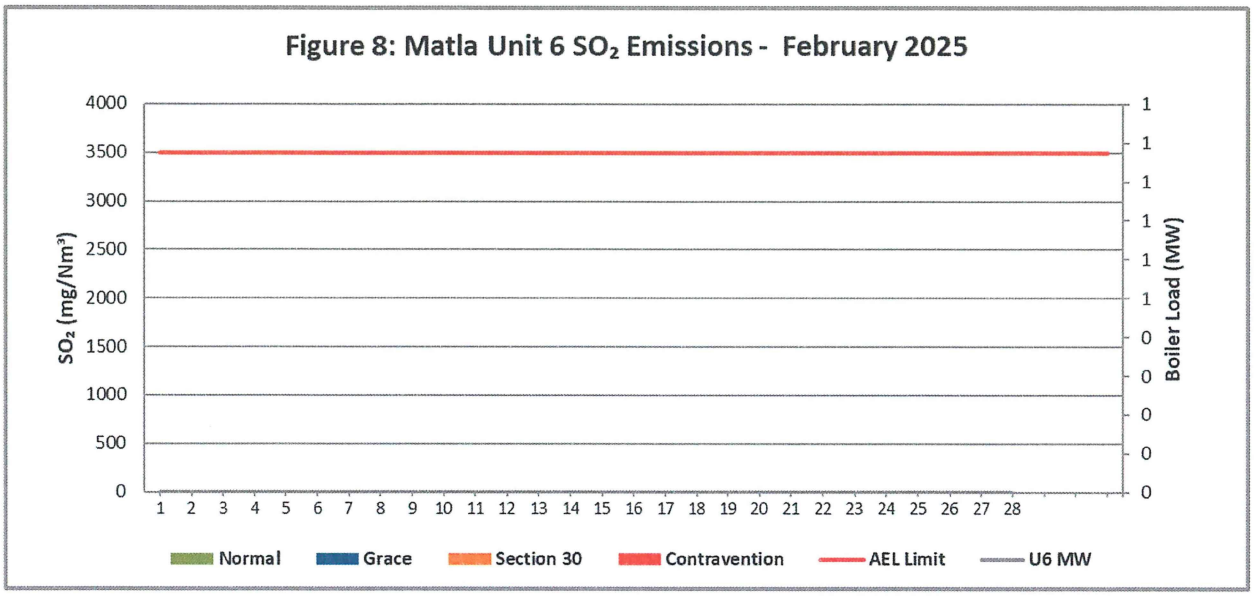


5.2 Sox Daily Averages









5.3 NOx Daily Averages

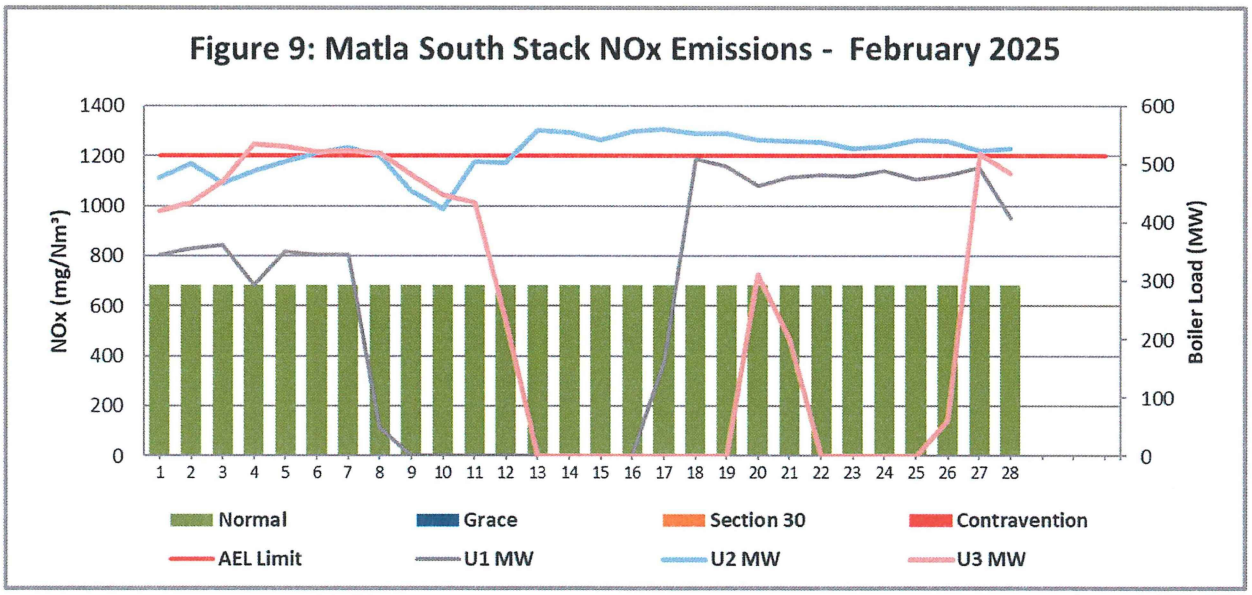


Figure 10: Matla Unit 4 NOx Emissions - February 2025

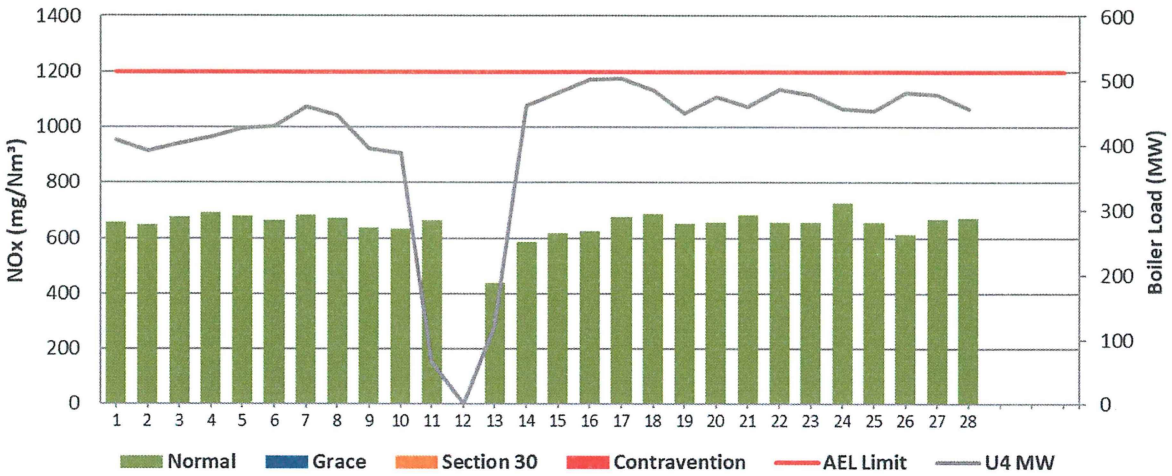
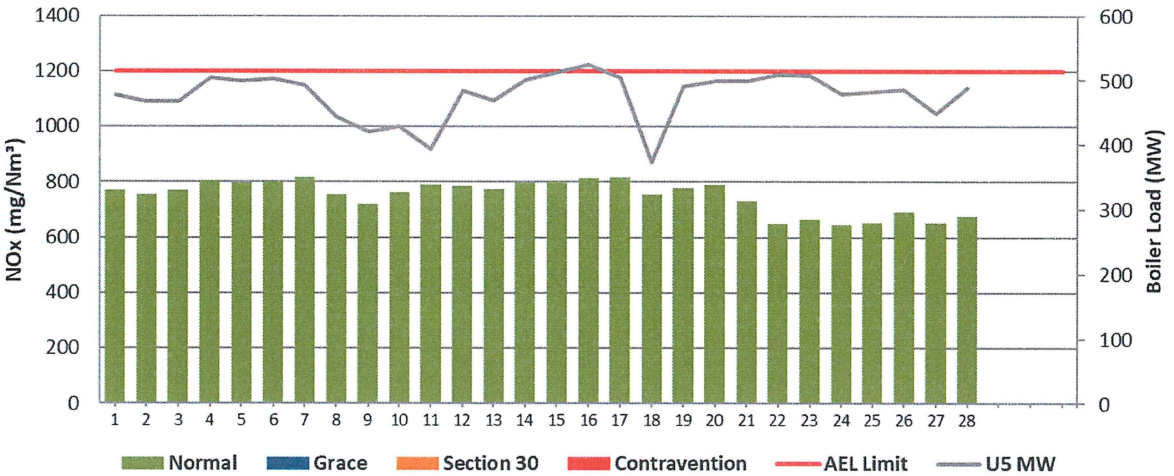


Figure 11: Matla Unit 5 NOx Emissions - February 2025



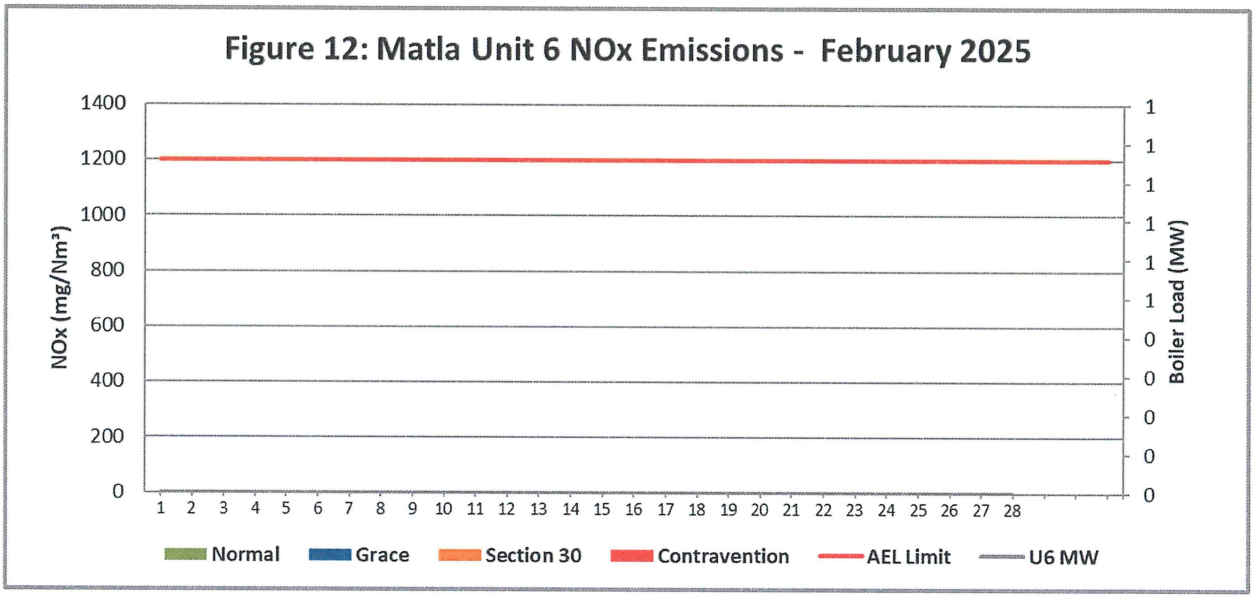


Table 5-Monthly Tonnages for 02/2025

Associated Unit/Stack	PM	SO_2	NO_2
Unit 1	154.8	1 775.9	640.4
Unit 2	334.2	3 540.3	1 276.7
Unit 3	80.8	1 619.3	583.9
Unit 4	227.0	2 736.0	1 010.0
Unit 5	99.1	2 869.2	1 134.4
Unit 6	Off	Off	Off
SUM	895.8	12 540.8	4 645.4

Table 6-Monthly Averages Concentration for 02/2025 in mg/Nm^3

Associated Unit/Stack	PM	SO_2	NO_2
South Stack	176.2	1 895.0	683.4
Unit 4	144.2	1 775.9	651.7
Unit 5	65.5	1 900.4	751.3
Unit 6	Off	Off	Off

6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
February 2025	Malfunctioning	The station gas monitors have been reading inaccurately for South Stack, Unit 4 and Unit 5, however parallel tests averages were used for the purpose of accurate reporting of the gases during this reporting period. The station is in a process of sourcing some of components for the gas monitors such Lenses, Zirconium cells for O2 and Heater gaskets to improve the Monitor reliability and CO2+O2 relationship hence the Monitor reliability is not reported on the table above.

Table 8-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO_2	NO_2	O_2
South Stack	90.5	-	-	-
Unit 4	100.0	-	-	-
Unit 5	100.0	-	-	-
Unit 6	Off	Off	Off	Off

Note: Parallel tests averages were used for the purpose of accurate reporting of the gases. The station is in a process of sourcing some of components for the gas monitors such Lenses, Zirconium cells for O2 and Heater gaskets to improve the Monitor reliability and CO2+O2 relationship hence the Monitor reliability is not reported on the table above.

7. CEMS Calibration and Equipment Used for Calibration

Calibration certificates to be made available upon request.

8. Validity of Correlation and Parallel Test

Table 9-Validity of Correlation and Parallel Test.

Associated Unit/Stack	Correlation Test (PM)	Parallel Test (NO_2, CO_2, O_2, SO_2)
South Stack	Valid until 27 February 2027	Valid until 30 October 2025
Unit 4	Valid until 30 July 2025	Valid until 30 April 2025
Unit 5	Valid Until 25 August 2026	Valid until 30 April 2025
Unit 6	Valid until 02 August 2026	Valid until 30 June 2025

9. Complaint Register

Table 10-Complaints for the month of 02/2025

Source Code/ Name	Air pollution complaints received	Calculation of Impacts/ emissions associated with the incident	Date of complaint and date of response by the license holder	Action taken to resolve the complaint	Date when the action was implemented.
N/A	N/A	N/A	N/A	N/A	N/A