Eskom	Monthly Report	Matla Power Station

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Date: 25/08/2025	**Date:** 25/08/2025	Date: 25-08-2025	Date: 2025/08/28

Content

1. Introduction

MATLA POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF JULY 2025

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 July 2025 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 07/2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 07/2025
	Coal	Tons/month	1 475 000	857 736
	Fuel Oil	Tons/month	3 500	536
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Capacity Permitted (Quantity)**	Production Rate in Month of 07/2025
	Energy	GWh	2 745	1 512
	Ash Produced	Tons/month	471 000	243 425

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 07/2025

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.677%	100%
	Electrostatic Precipitators (ESP)		
	Electrostatic Precipitators (ESP)		
Unit 4	Electrostatic Precipitators (ESP)	99.659%	100%
Unit 5	Electrostatic Precipitators (ESP)	99.868%	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 07/2025

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	0.81
Ash Content	21-40	28.38

5. Emissions Reporting

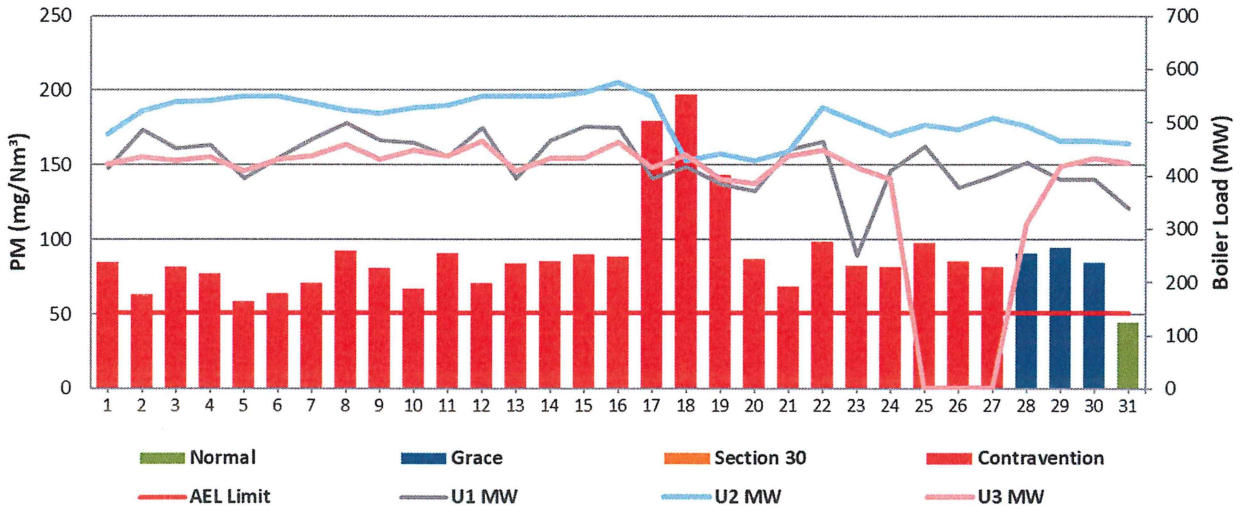
In terms of Section 59 of National Environmental Management: Air Quality Act (Act no.39 of 2004) a decision made by the Minister of DFFE, in respect of the Eskom exemption applications for new Minimum Emission Standards (MES) were granted and effective as of 01st April 2025.

Table 4- New Minimum Emission Limits are as follows:

SO_2 Monthly = 2600 mg/Nm^3	Dust Daily= 50 mg/Nm^3 (South Stack) Dust Daily= 100 mg/Nm^3(Unit 4, 5 and 6)	NO_2 Daily= 1100 mg/Nm^3

5.1 PM Daily Averages

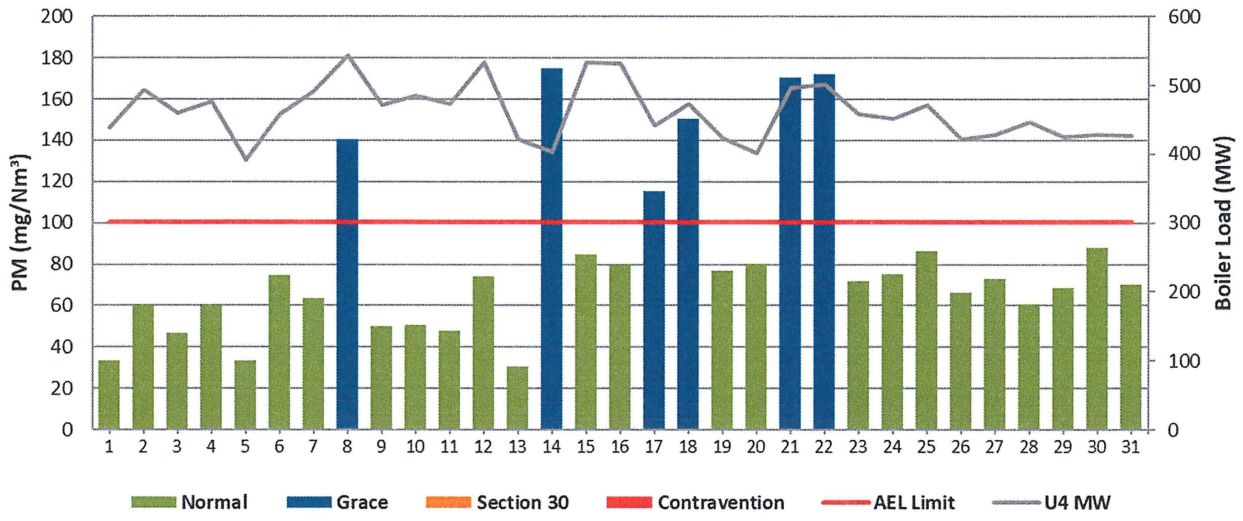
Figure 1: Matla South Stack PM Emissions - July 2025



Matla Power Station South Stack exceeded PM MES limit of 50mg/Nm^3 from the 01st – 27th of June 2025. Matla Power Station South Stack units are still struggling to operate within limit on full load. The station has submitted a letter to the Nkangala District Municipality licensing Officer on the

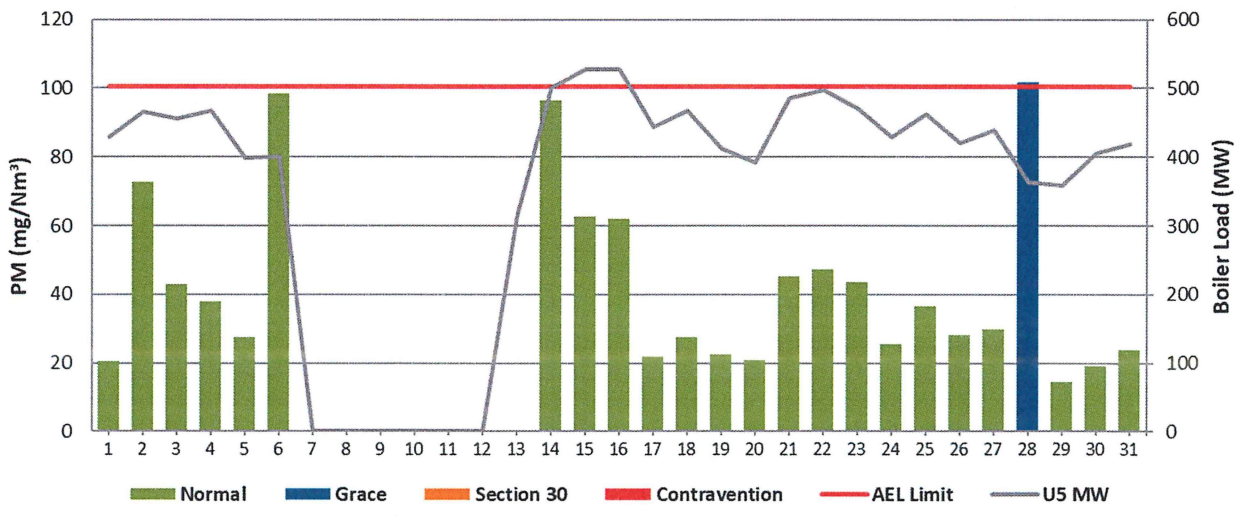
challenges and actions that are being taken to address the stations non-compliance of the South Stack to the MES limits. Refer to appendix A for progress.

Figure 2: Matla Unit 4 PM Emissions - July 2025

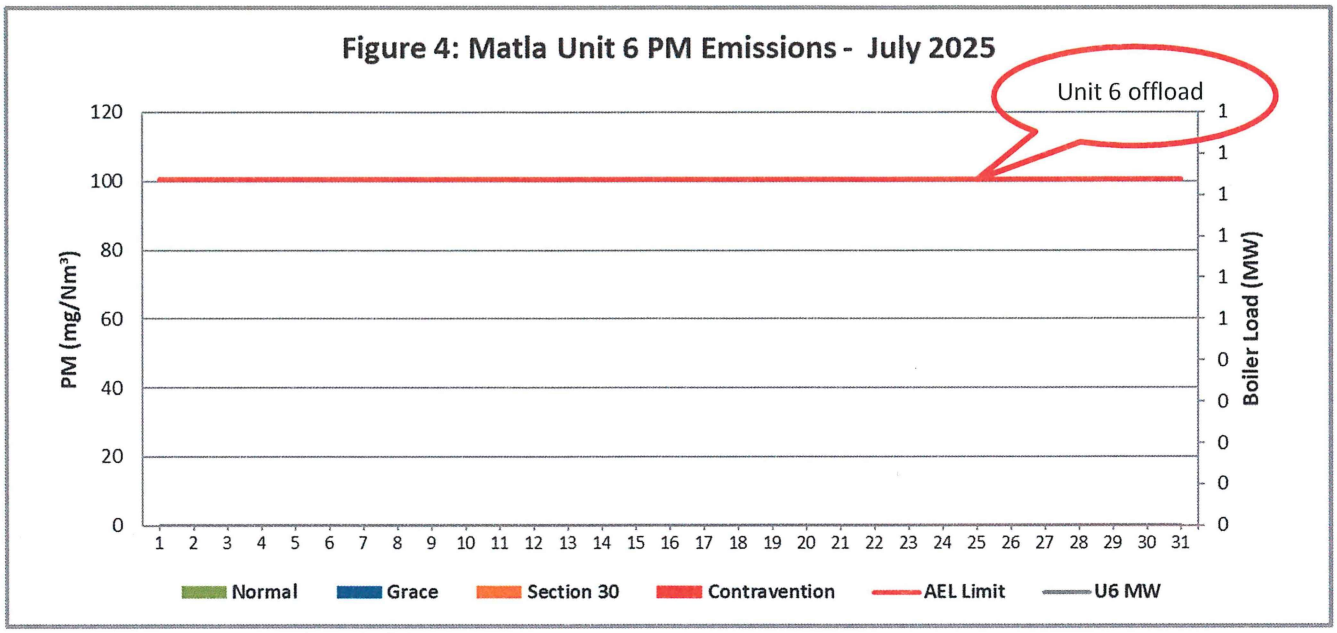


Matla Power Station Unit 4 exceeded PM MES limit of 100 mg/Nm^3 on the 08th of July 2025, due to low SO3 Burner Temp. On the 14th of July 2025, the exceedance was due to unit hot light-up. On the 17th and 18th of July 2025, the exceedances were due to poorly performing precip fields and high hopper levels because of Dust Handling Plant defects. On the 21st and 22nd of July 2025, the exceedances were due to the newly implemented spot check curve and poorly performing precip fields.

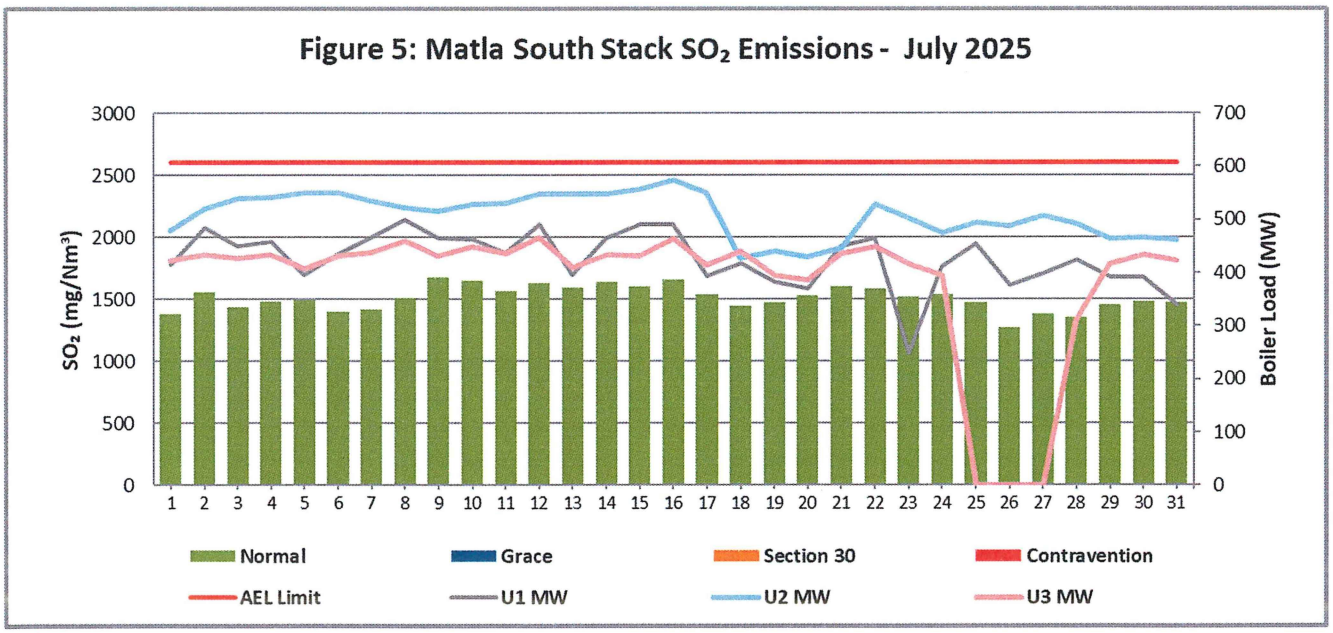
Figure 3: Matla Unit 5 PM Emissions - July 2025



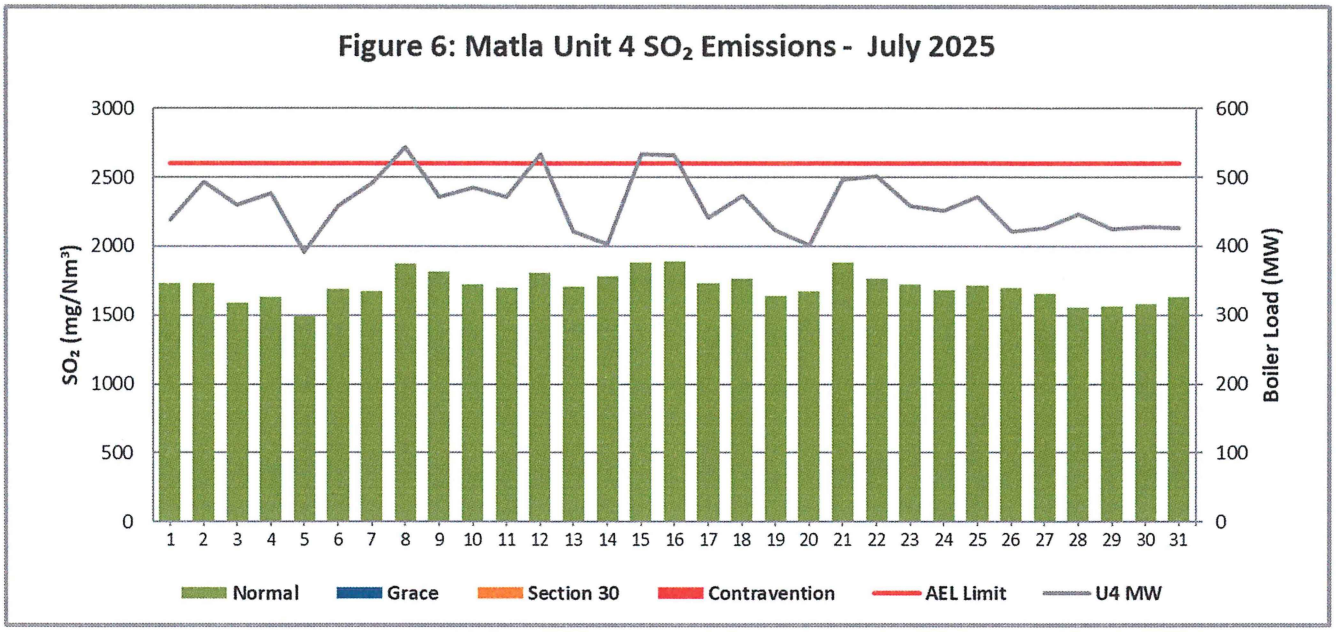
Matla Power Station Unit 5 exceeded PM MES limit of 100 mg/Nm^3 on the 28th of July 2025, due to unit hot light up.



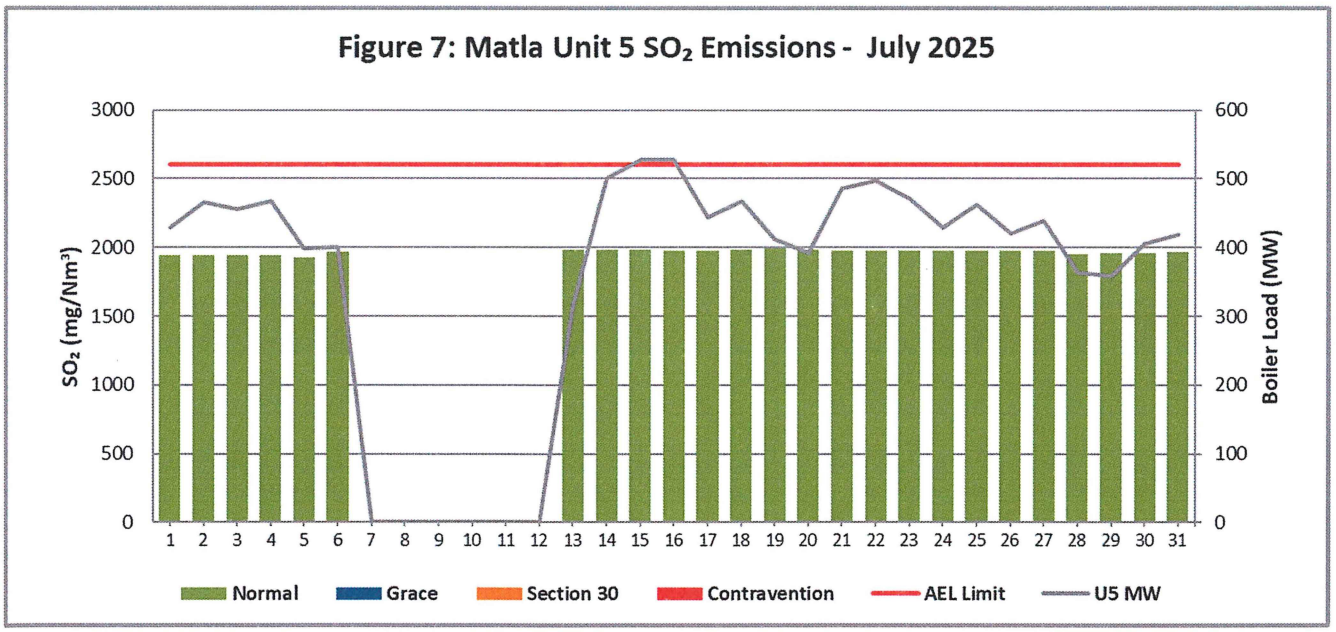
5.2 Sox Daily Averages



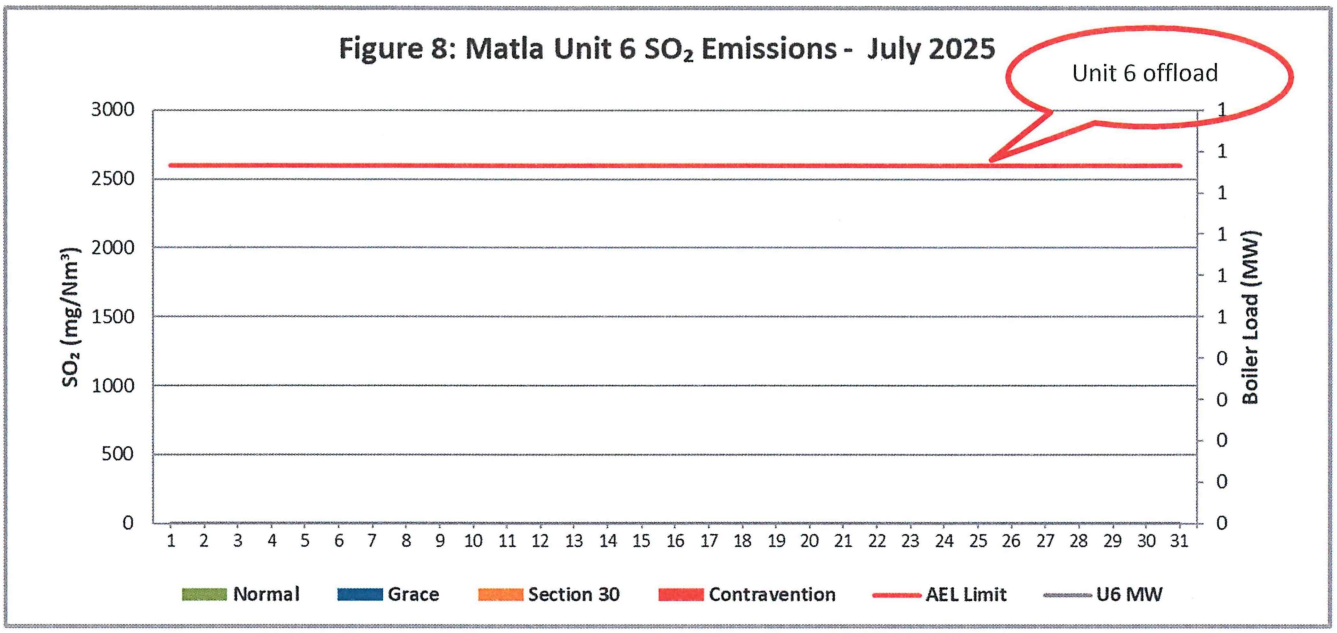
Note: Matla Power Station did not exceed SOX Limit.



Note: Matla Power Station did not exceed SOX Limit.

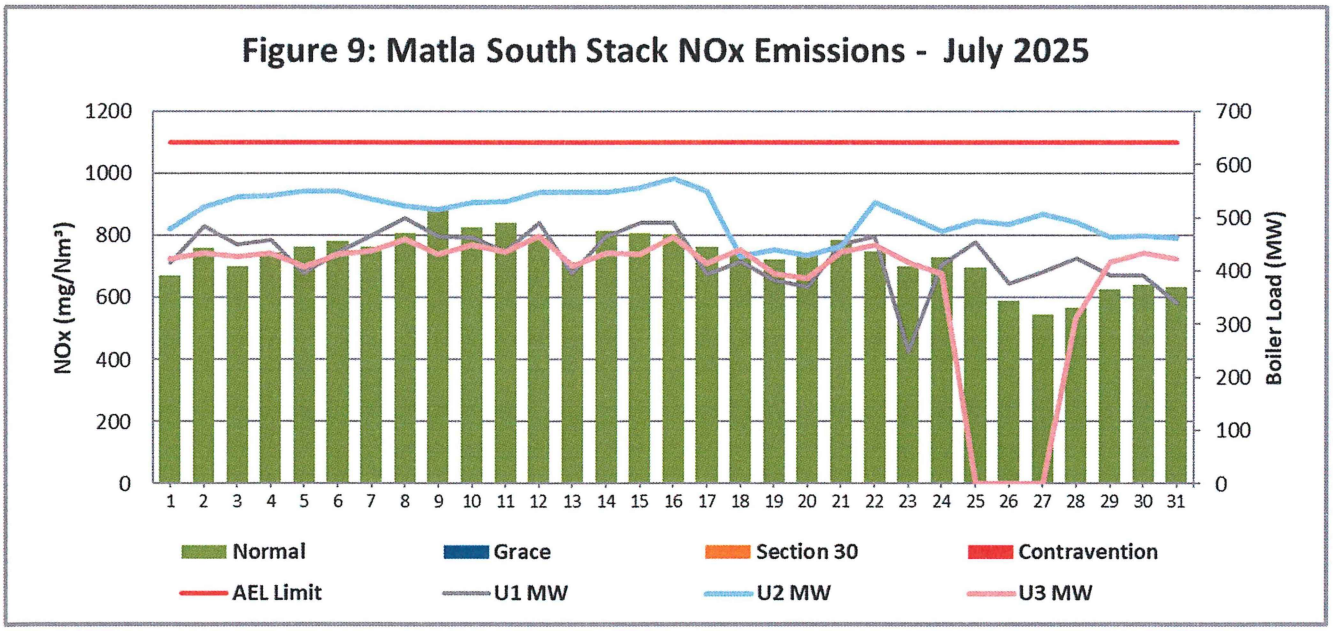


Note: Matla Power Station did not exceed SOX Limit.

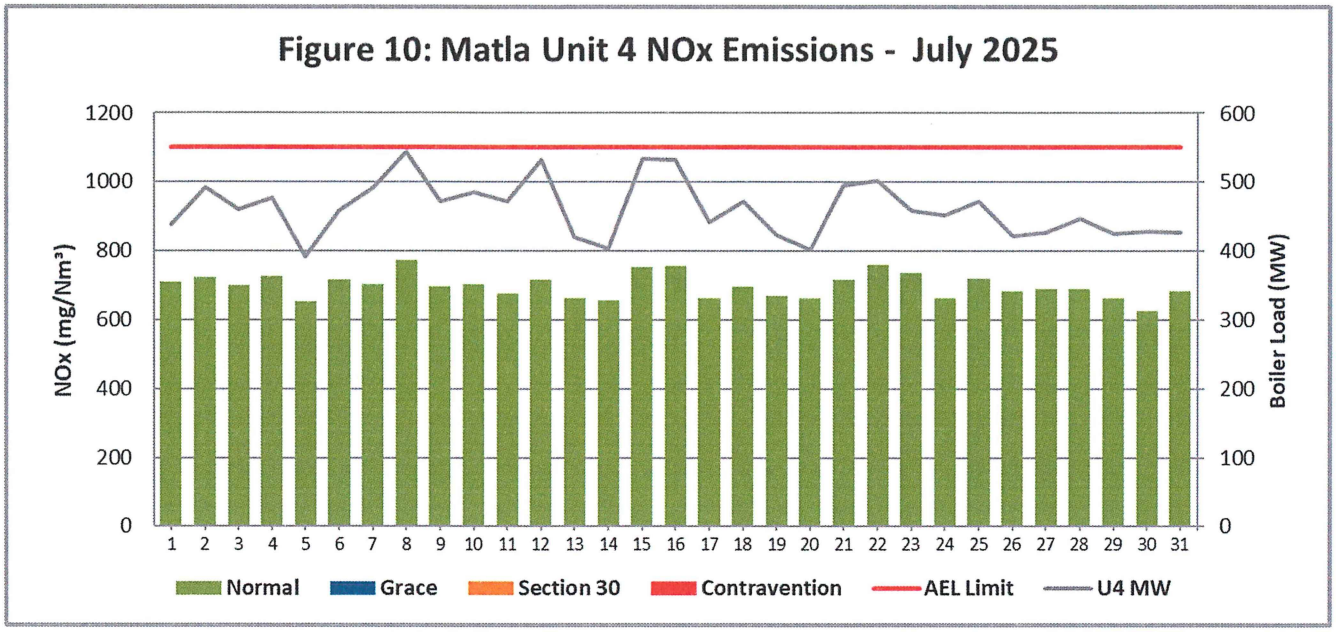


Note: Matla Power Station did not exceed SOX Limit.

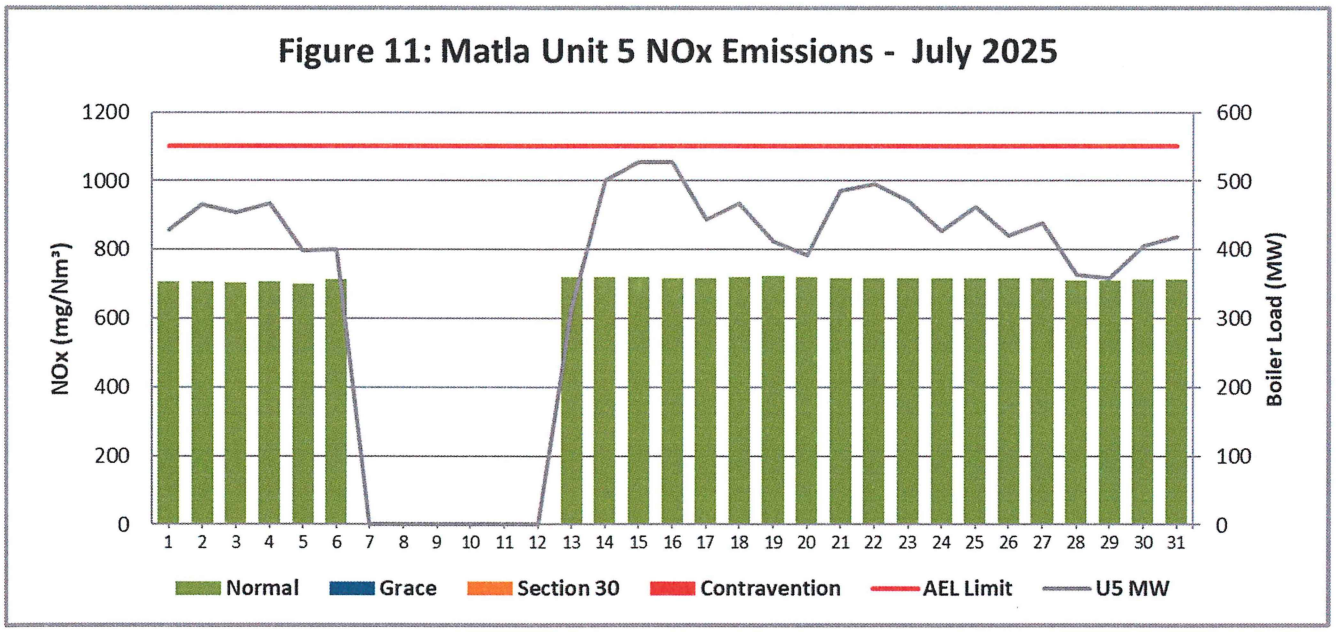
5.3 NOx Daily Averages



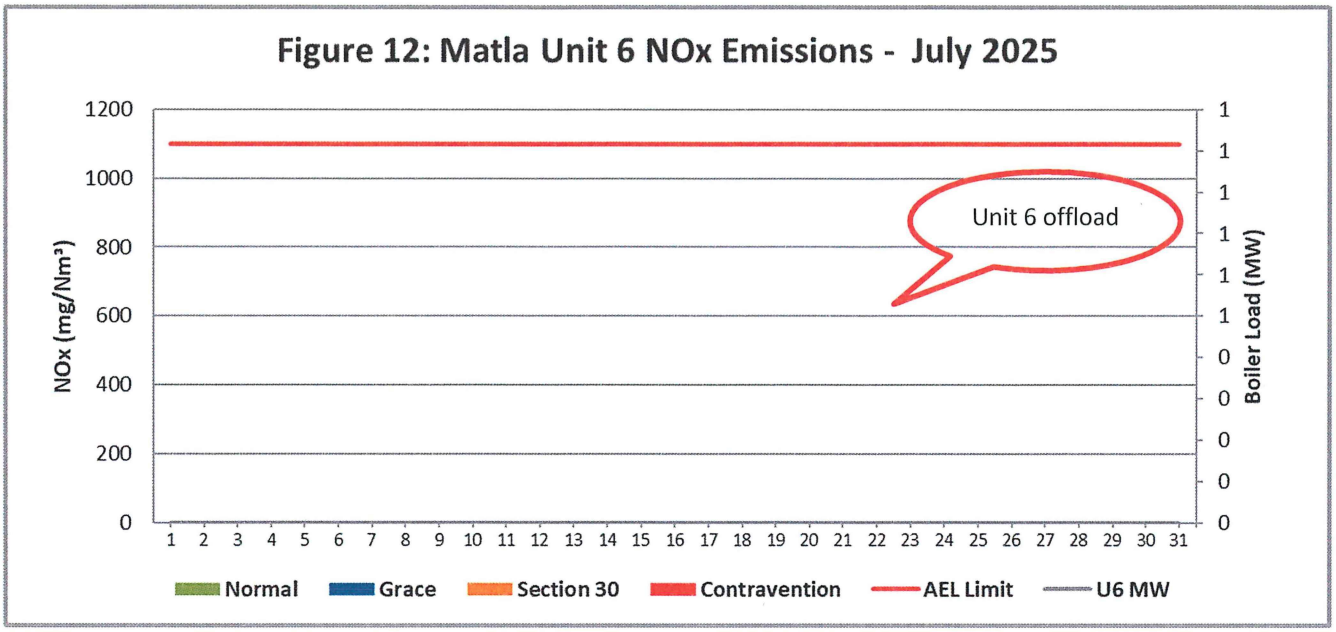
Note: Matla Power Station did not exceed NOX Limit.



Note: Matla Power Station did not exceed NOX Limit.



Note: Matla Power Station did not exceed NOX Limit.



Note: Matla Power Station did not exceed NOX Limit.

Table 5-Monthly Tonnages for 07/2025

Associated Unit/Stack	PM	SO_2	NO_2
Unit 1	146.4	2 664.0	1 298.3
Unit 2	163.7	3 002.7	1 461.7
Unit 3	126.7	2 383.0	1 172.3
Unit 4	154.9	3 304.4	1 353.9
Unit 5	51.2	2 374.9	861.9
Unit 6	Off	Off	Off
SUM	642.9	13 729.0	6 148.2

Table 6-Monthly Averages Concentration for 07/2025 in mg/Nm^3

Associated Unit/Stack	PM	SO_2	NO_2
South Stack	82.5	1 512.4	733.5
Unit 4	81.7	1 709.4	698.3
Unit 5	42.9	1 968.3	714.4
Unit 6	Off	Off	Off

6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
July 2025	Malfunctioning	The station gas monitors have been reading inaccurately for South Stack and 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 O_2 and Heater gaskets to improve the Monitor reliability and CO_2+O_2 relationship hence the Monitor reliability is not reported on the table above. The station is in the process of placing the contract for the gas monitor components, contract placement target date is 31/10/2025.

Table 8-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO_2	NO_2	O_2
South Stack	99.1	-	-	-
Unit 4	99.6	-	-	-
Unit 5	98.1	-	-	-
Unit 6	Off	Off	Off	Off

Note: Parallel tests averages were used on South Stack 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 O_2 and Heater gaskets to improve the Monitor reliability and CO_2+O_2 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 11 August 2025 (Spot Check Curve)	Valid until 11 May 2027
Unit 5	Valid Until 25 August 2026	Valid until 29 May 2027
Unit 6	Valid until 02 August 2026	Valid until 30 June 2025

9. Complaint Register

Table 10-Complaints for the month of 07/2025

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

Progress Feedback – Appendix A

Unit 1 Action	Action	Responsible	Progress feedback	Date
1	Fix Unit 1 internal defects on fields LH4,7,8 and RH3,8 (insulators to be replaced) and repair all other defects. Outage opportunity required for the above defects.	Jabulani Khoza	Unit 1 currently on outage from 01/08/2025	30 September 2025
2	Optimization of the precips (rapper times, current and voltage)	John Makuleka	In progress	30 September 2025
3	Optimise unit 1 SO3 injection to increase the flow to 90 kg/hr	John Makuleka	Completed	30 December 2024

Unit 2 Action	Action	Responsible	Progress feedback	Date
1	Repair all internal defects during outage.	John Makuleka	Completed	16 June 2025
2	Optimization of the precips (rapper times, current and voltage)	John Makuleka	Completed	01 August 2025

3	Optimise unit 2 SO3 by ensuring the correct flow is established	John Makuleka	Completed	01 August 2025
4	Implement Multi Ash Flow Project on DHP	Rodney Mkhabela	Completed	16 June 2025
5	Install, calibrate and commission opacity meters	Katlego Mangope	In progress	31 August 2025

Unit 3 Action	**Action**	**Responsible**	**Progress feedback**	**Date**
1	Correction of rapping defects	Suping Lesikara	Completed	30 June 2025
2	Commission and calibrate newly installed opacity meters	Katlego Mangope	Completed	31 March 2025