Eskom	Monthly Report	Matla Power Station

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1. Introduction

MATLA POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF APRIL 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 April 2025 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 04/2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 04/2025
	Coal	Tons/month	1 475 000	*752 081*
	Fuel Oil	Tons/month	3 500	*1 491*
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Capacity Permitted (Quantity)**	Production Rate in Month of 04/2025
	Energy	GWh	2 745	*1 327*
	Ash Produced	Tons/month	471 000	*203 814*

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 04/2025

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.514%	100%
	Electrostatic Precipitators (ESP)		
	Electrostatic Precipitators (ESP)		
Unit 4	Electrostatic Precipitators (ESP)	99.428%	100%
Unit 5	Electrostatic Precipitators (ESP)	99.811%	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 04/2025

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	0.8
Ash Content	21-40	27.10

5. Emissions Reporting

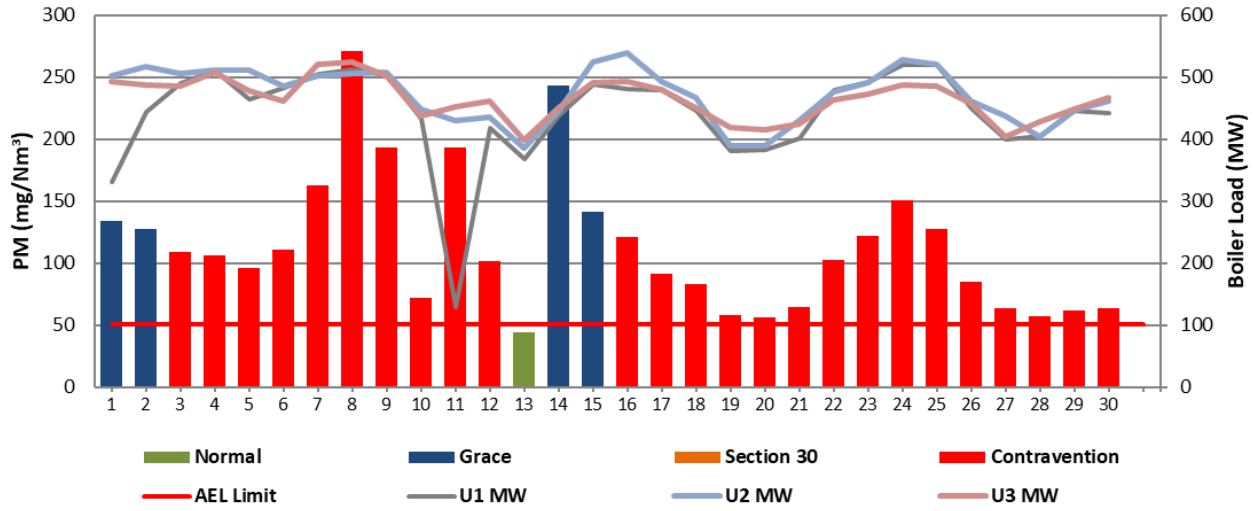
In terms of Section 59 of National Environmental Management: Air Quality Act (Act no.39 of 2004) a decision made by the Minister of DFFE, in respect of the Eskom exemption applications for new Minimum Emission Standards (MES) were granted and effective as of 01st April 2025.

Table 4- New Minimum Emission Limits are as follows:

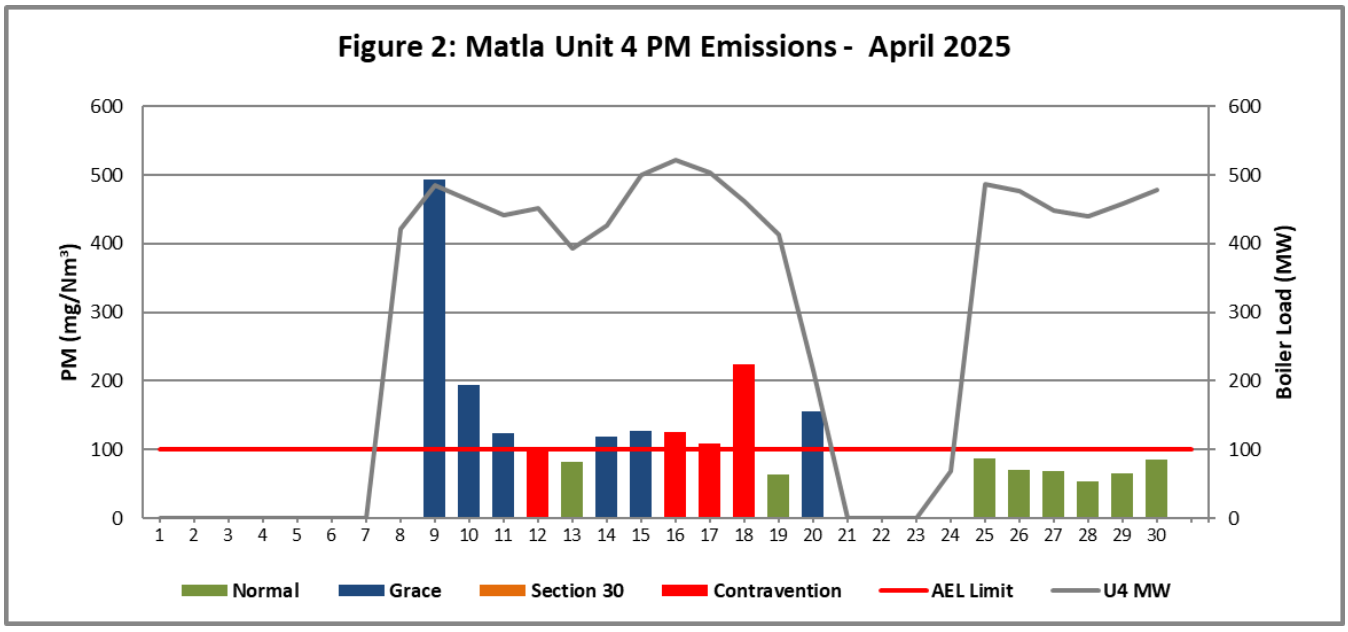
SO_2 Monthly = 2600 mg/Nm^3	Dust Daily= 50 mg/Nm^3 (South Stack) Dust Daily= 100 mg/Nm^3(Unit 4, 5 and 6)	NO_2 Daily= 1100 mg/Nm^3

5.1 PM Daily Averages

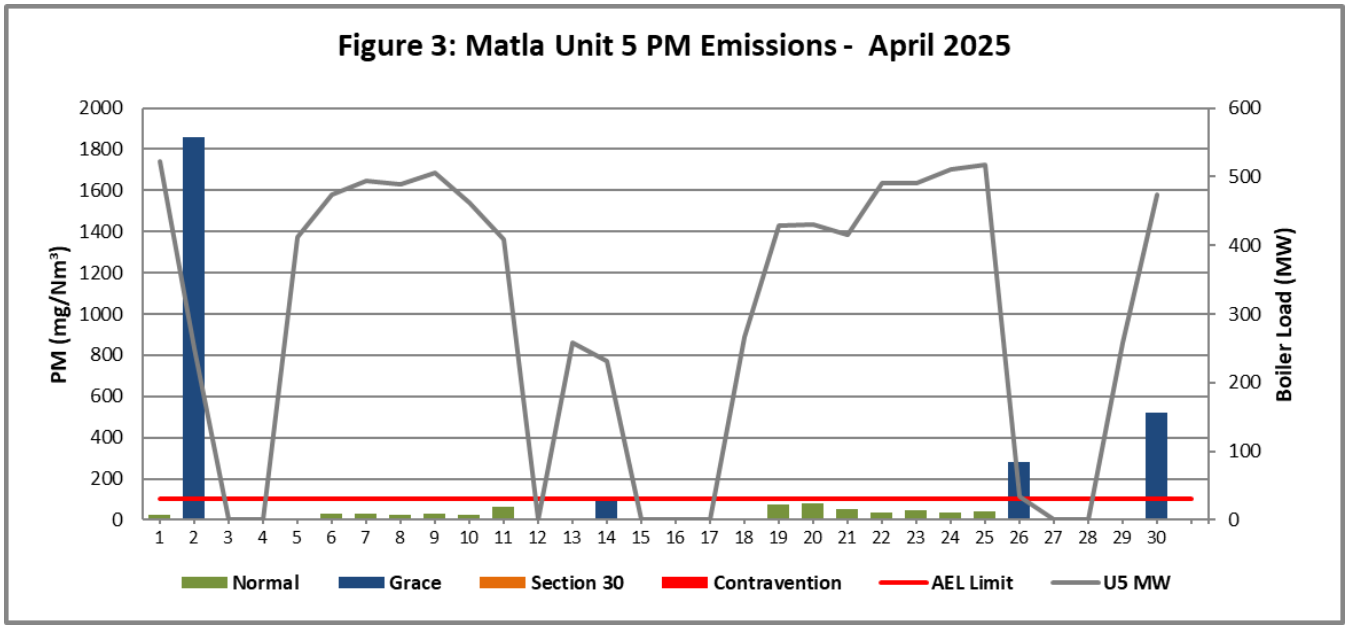
Figure 1: Matla South Stack PM Emissions - April 2025



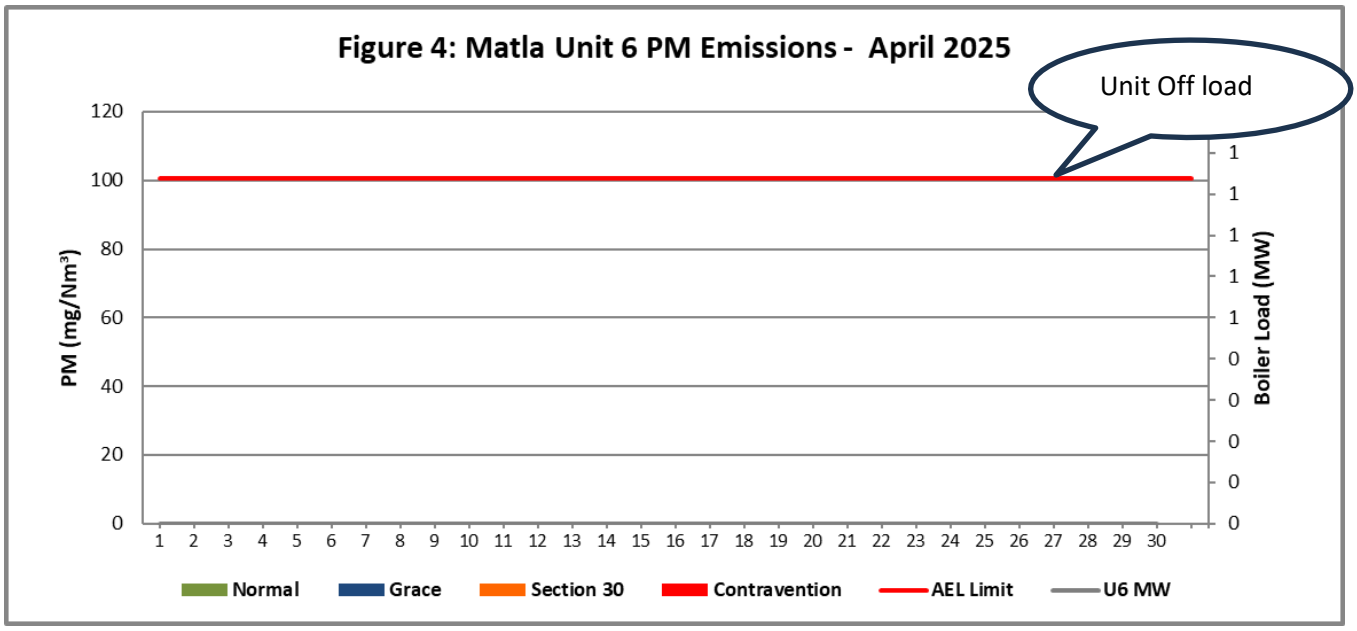
Matla Power Station South Stack exceeded PM AEL limit of 50mg/Nm^3 from the 01st – 12th of April 2025 and from 14th – 30th April 2025, with effect from the MES limit of 50 mg/Nm^3. The units are still struggling to operate within limit on full load and in some instances exceed on min-gen.



Matla Power Station unit 4 exceeded the PM limit of 200 mg/Nm^3 on from the 09th to the 12th of April 2025 and from the 14th to the 18th of April 2025. The exceedance was due to Unit 4 cold light-up that synchronised on the 08th of April 2025. The station experienced maxing out issues with the PM monitor within this period.



Matla Power Station Unit 5 exceeded PM AEL limit of 100 mg/Nm^3 on the 02nd of April 2025, due to precips isolation and on the 14th, 26th and 30rd of April 2025 exceedance was due to Unit cold light-up.



5.2 Sox Daily Averages

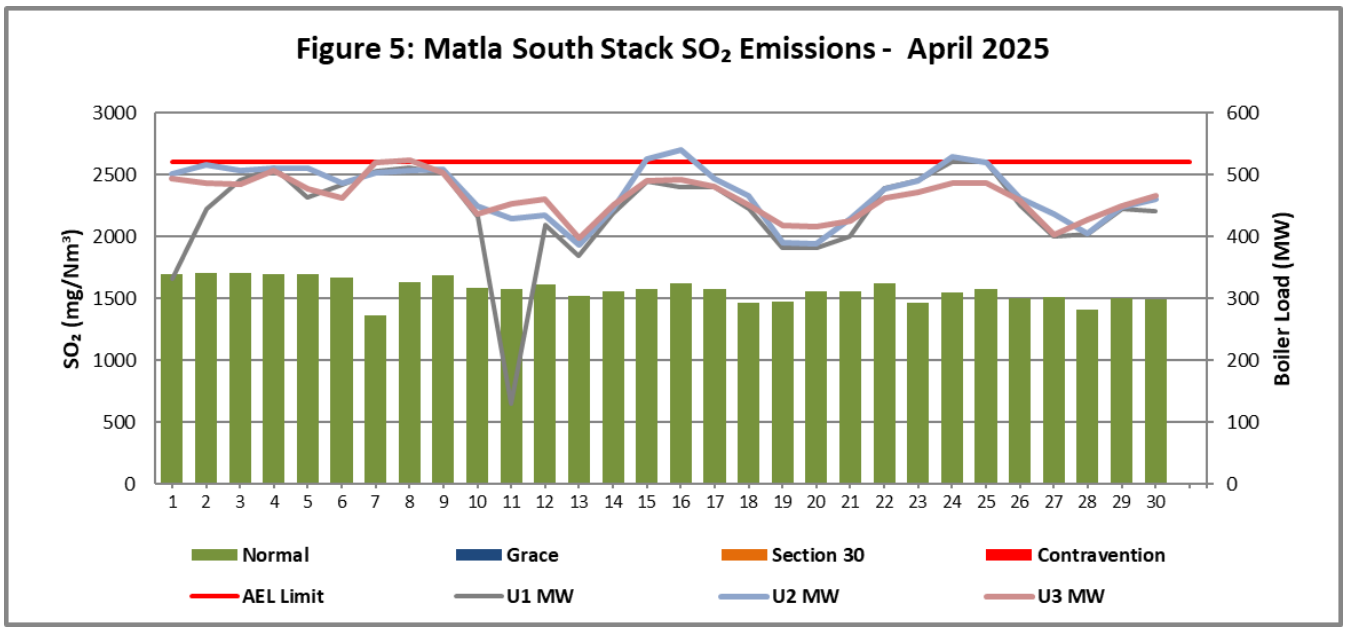
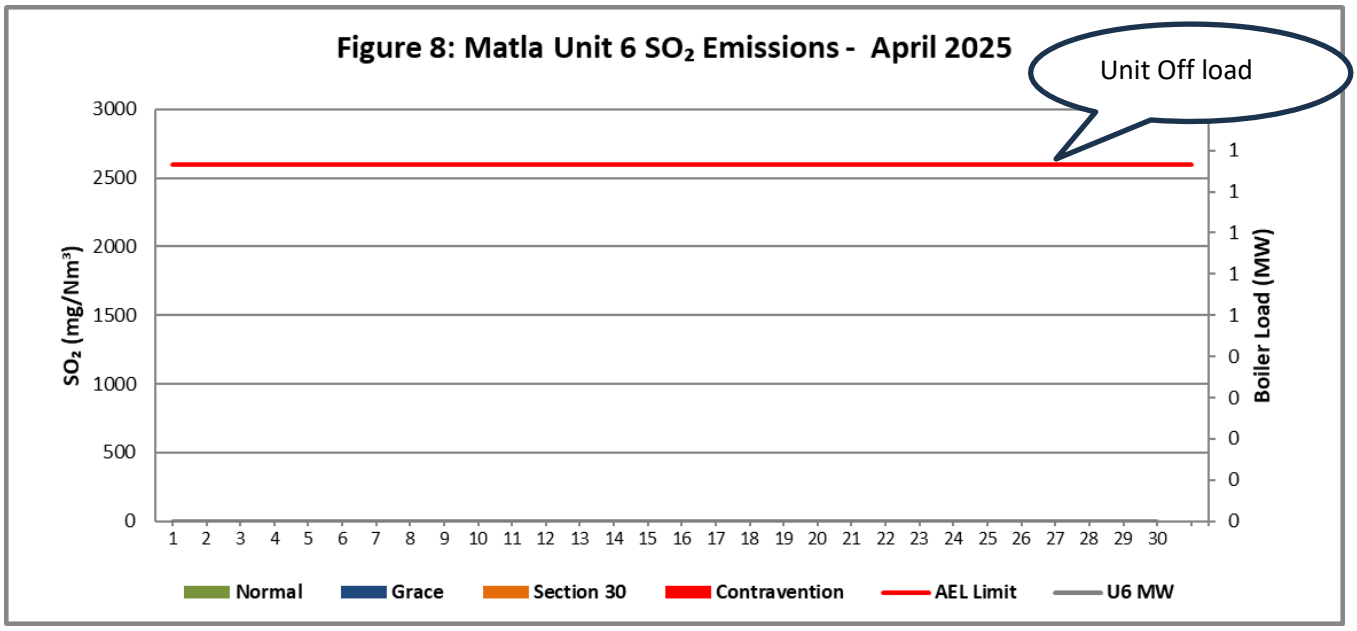


Figure 6: Matla Unit 4 SO_2 Emissions - April 2025

Figure 7: Matla Unit 5 SO_2 Emissions - April 2025



5.3 NOx Daily Averages

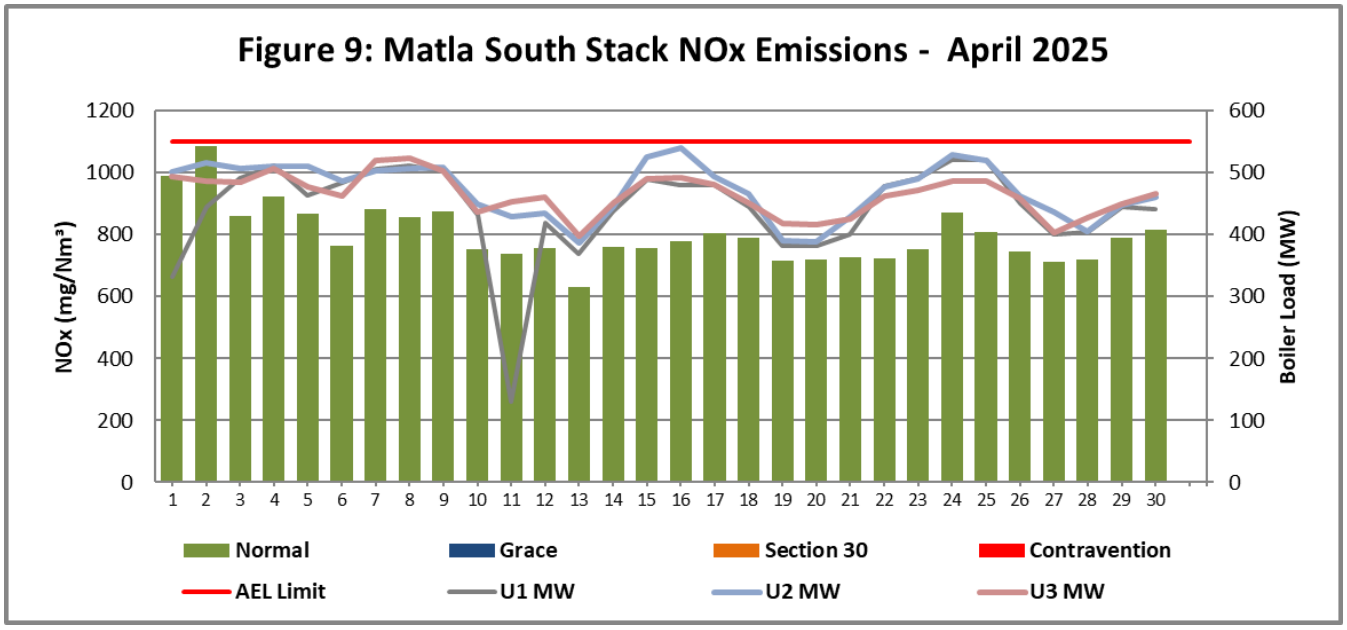


Figure 10: Matla Unit 4 NOx Emissions - April 2025

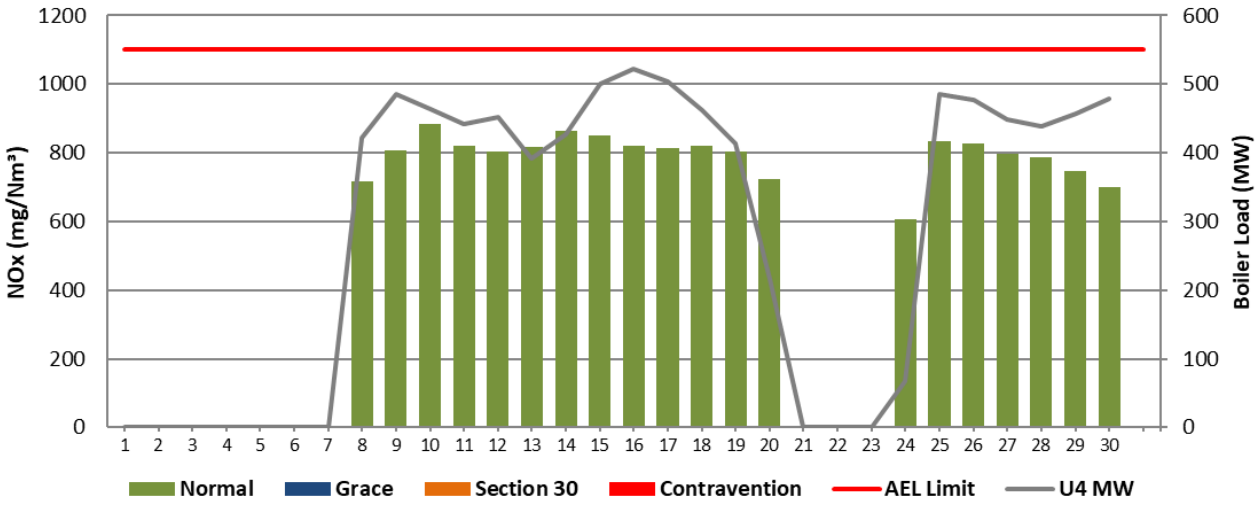
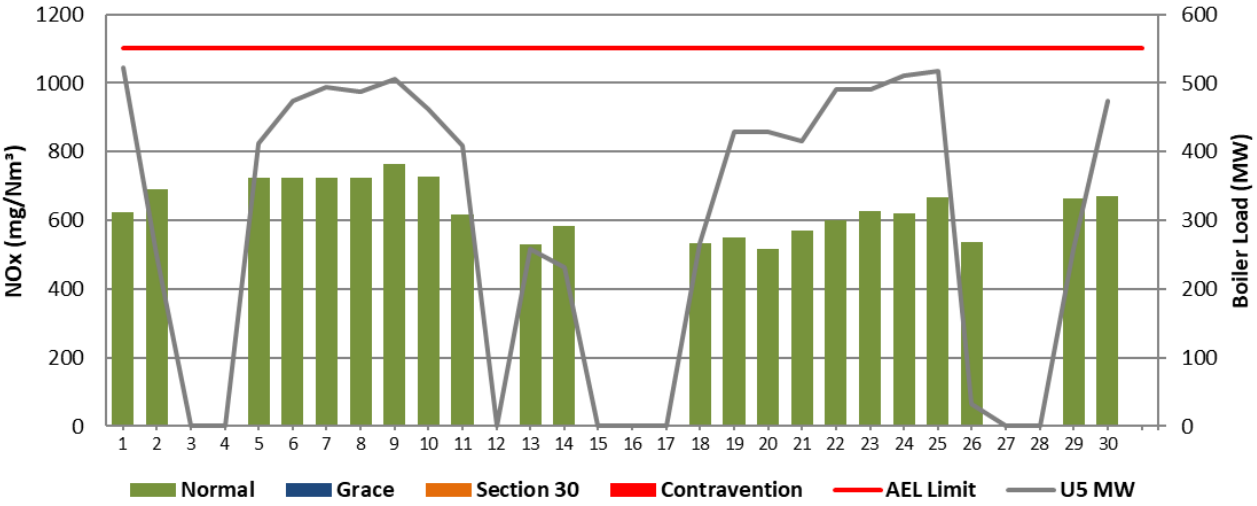


Figure 11: Matla Unit 5 NOx Emissions - April 2025



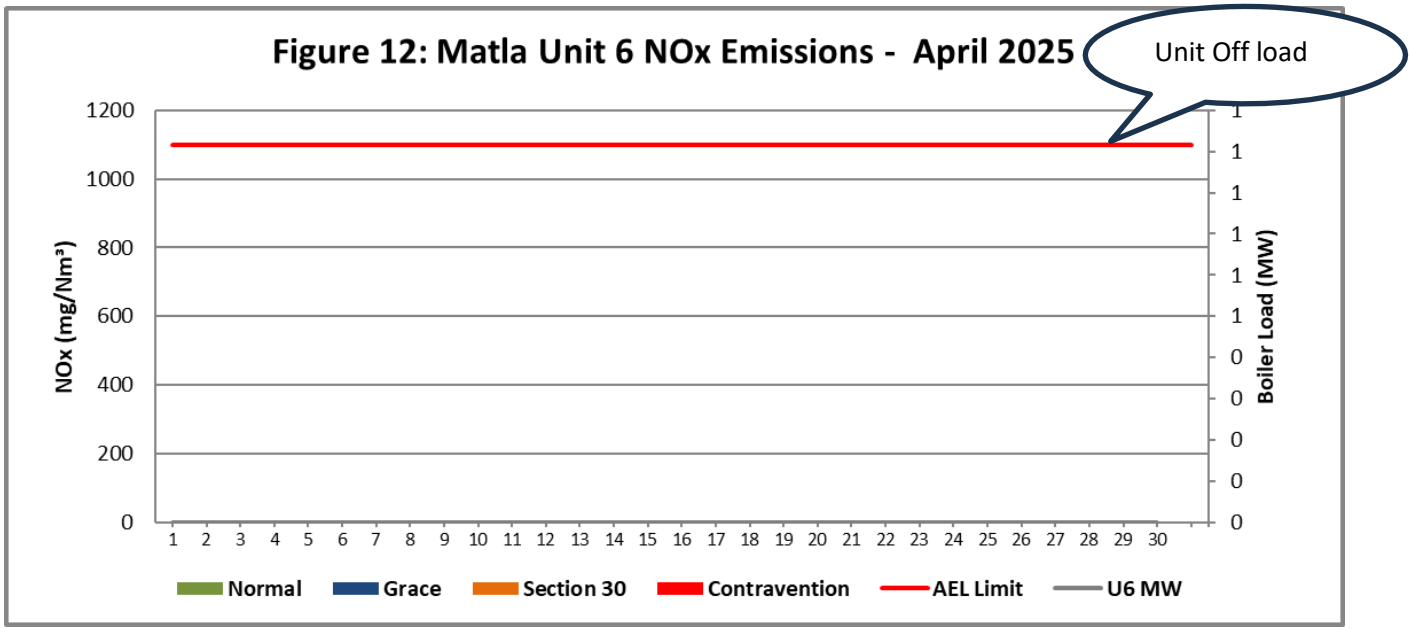


Table 5-Monthly Tonnages for 04/2025

Associated Unit/Stack	PM	SO_2	NO_2
Unit 1	189.8	2 621.0	1 326.0
Unit 2	216.9	2 948.2	1 505.7
Unit 3	222.4	3 032.7	1 543.4
Unit 4	143.3	1 548.9	868.6
Unit 5	102.0	1 385.0	536.5
Unit 6	Off	Off	Off
SUM	874.5	11 535.9	5 780.1

Table 6-Monthly Averages Concentration for 04/2025 in mg/Nm^3

Associated Unit/Stack	PM	SO_2	NO_2
South Stack	114.0	1 573.4	799.3
Unit 4	130.5	1 455.3	792.4
Unit 5	187.0	1 700.6	635.7
Unit 6	Off	Off	Off

6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
April 2025	Malfunctioning	The station gas monitors have been reading inaccurately for South Stack, 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.

Table 8-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO_2	NO_2	O_2
South Stack	89.0	-	-	-
Unit 4	99.2	91.9	91.9	-
Unit 5	85.1	80.1	80.1	-
Unit 6	Off	Off	Off	Off

Note: Parallel tests averages were used for the purpose of accurate reporting of the gases for South Stack. 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 19 May 2025	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 04/2025

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