Eskom	Monthly Report	Matla Power Station

Title: **Matla Power Station Monthly Emissions Report – January 2025**

Document Identifier: **06C-31482**

Alternative Number: Reference: **31482**

Area of Applicability: **Matla Power Station**

Functional Area: **Environmental Department**

Revision: **0**

Total Pages: **13**

Next Review Date: **N/A**

Disclosure Classification: **Controlled Disclosure**

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		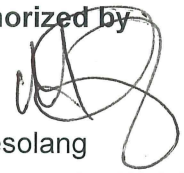
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Date: 26/02/2025	**Date:** 2025/02/27	Date: 27/02/2025

Content

1. Introduction

MATLA POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF JANUARY 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 JANUARY 2024 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 01/2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 01/2025
	Coal	Tons/month	1 475 000	775 038
	Fuel Oil	Tons/month	3 500	700
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Capacity Permitted (Quantity)**	Production Rate in Month of 01/2025
	Energy	GWh	2 745	1 400
	Ash Produced	Tons/month	471 000	226 079

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 01/2025

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.230%	100%
	Electrostatic Precipitators (ESP)		
	Electrostatic Precipitators (ESP)		
Unit 4	Electrostatic Precipitators (ESP)	*99.585%*	100%
Unit 5	Electrostatic Precipitators (ESP)	*99.505%*	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 01/2025

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	29.17

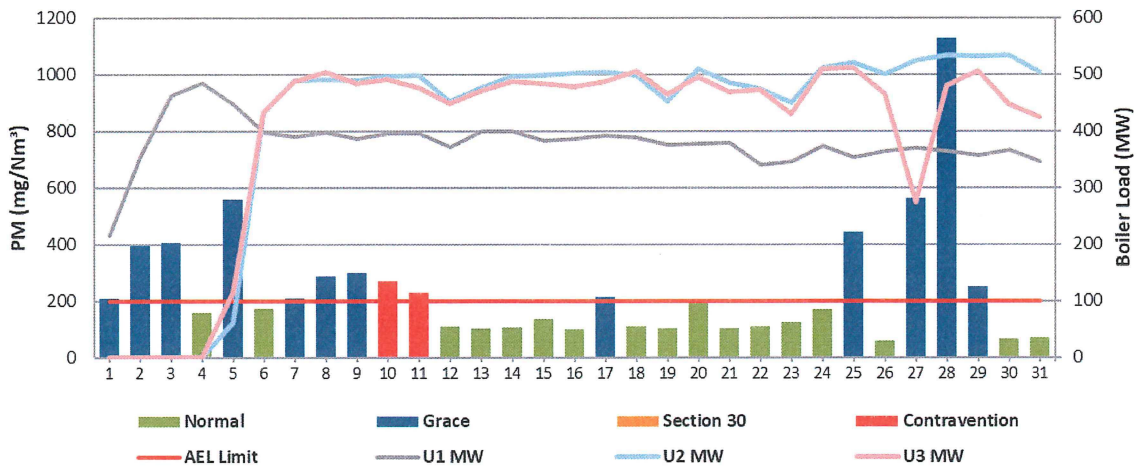
5. Emissions Reporting

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

Figure 1: Matla South Stack PM Emissions - January 2025



Matla South Stack Exceeded PM AEL limit of 200 mg/Nm^3 on the 10th of January 2025, due to Unit 3 SO_3 plant warm-up that took time to be in service where (sulphur flow could not be established because of blocked SO_3 lance). The station incurred a Legal Contravention for this incident.

Figure 2: Matla Unit 4 PM Emissions - January 2025

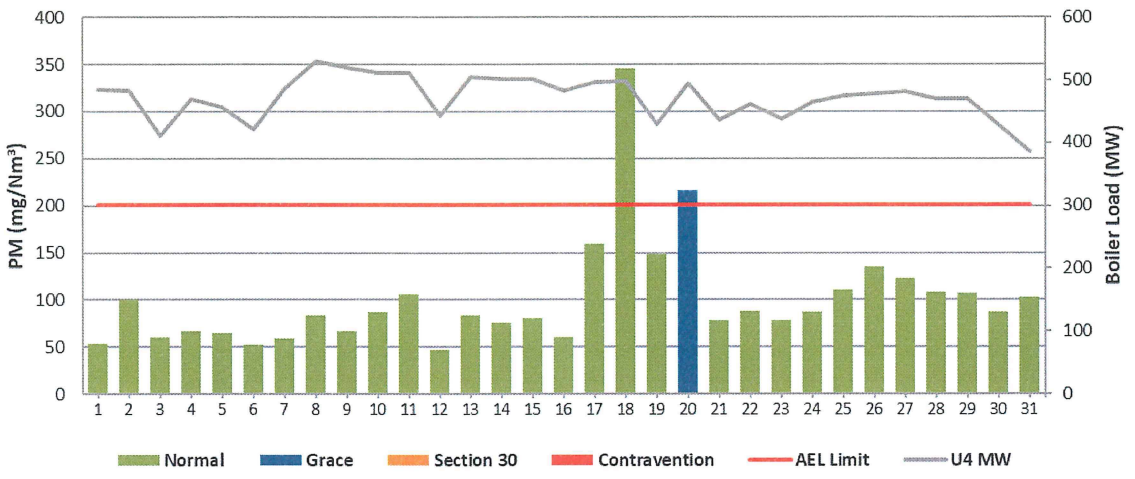
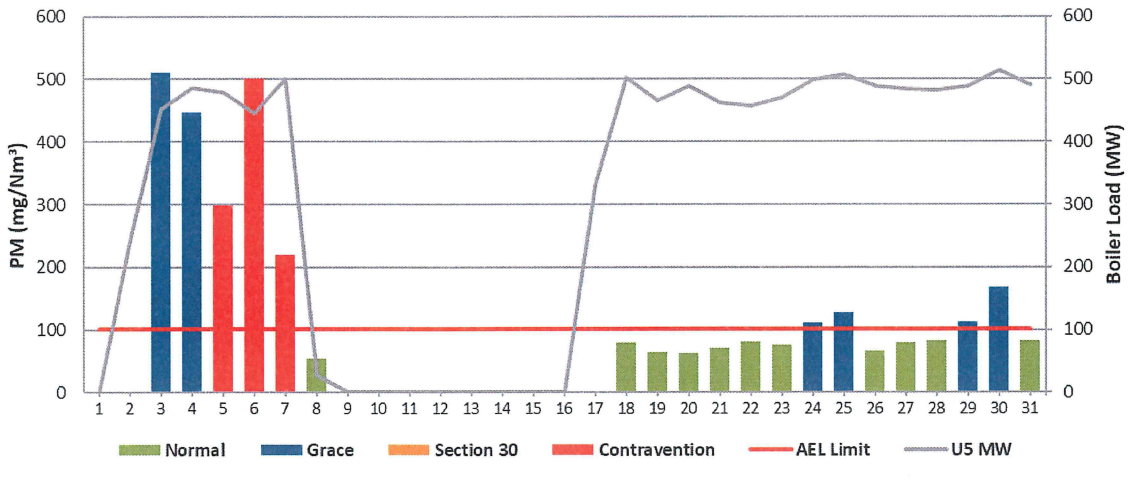
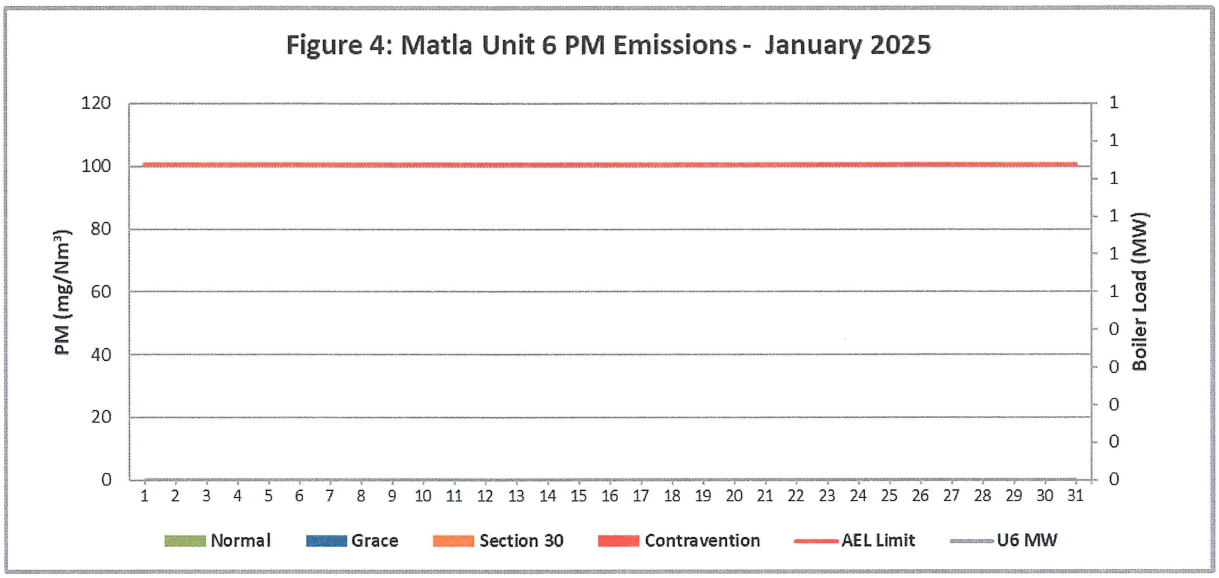


Figure 3: Matla Unit 5 PM Emissions - January 2025



Matla Unit 5 Exceeded PM AEL limit of 100 mg/Nm^3 on the 05th of January 2025, due to unit 5 SO_3 that took time to be in service. Unit 5 operated without SO_3 flow because the burner temperature took time to warm up and that resulted to the station incurring a Legal Contravention.



5.2 Sox Daily Averages

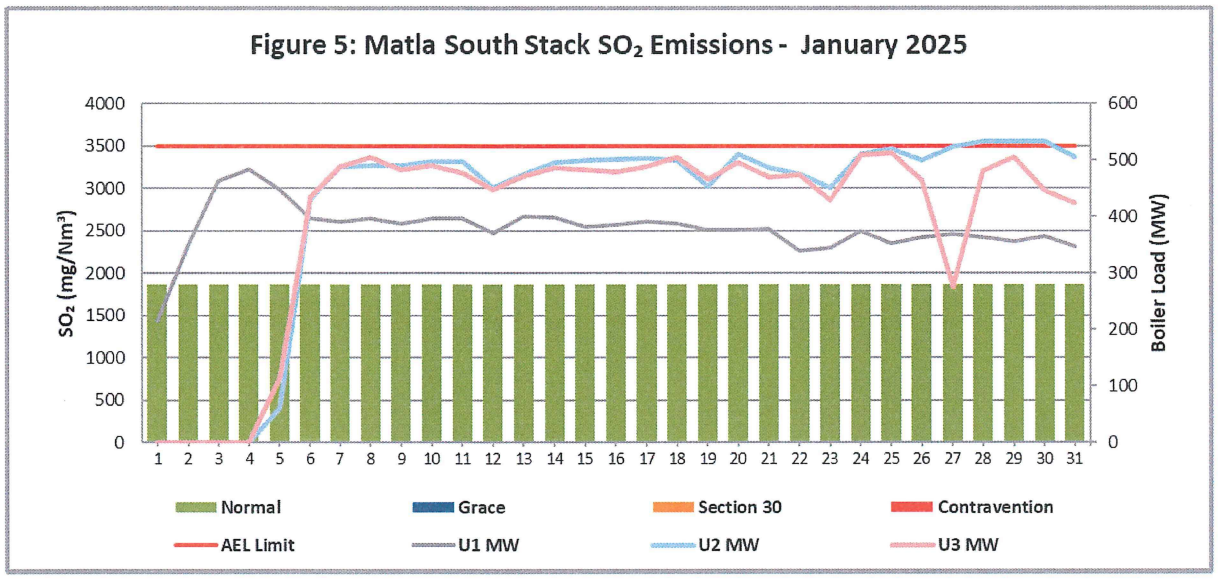


Figure 6: Matla Unit 4 SO_2 Emissions - January 2025

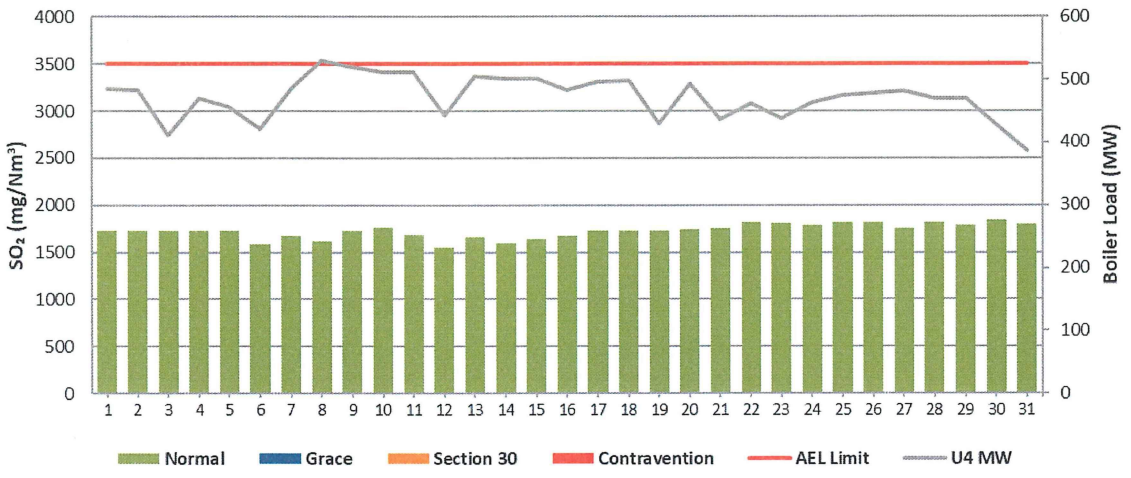
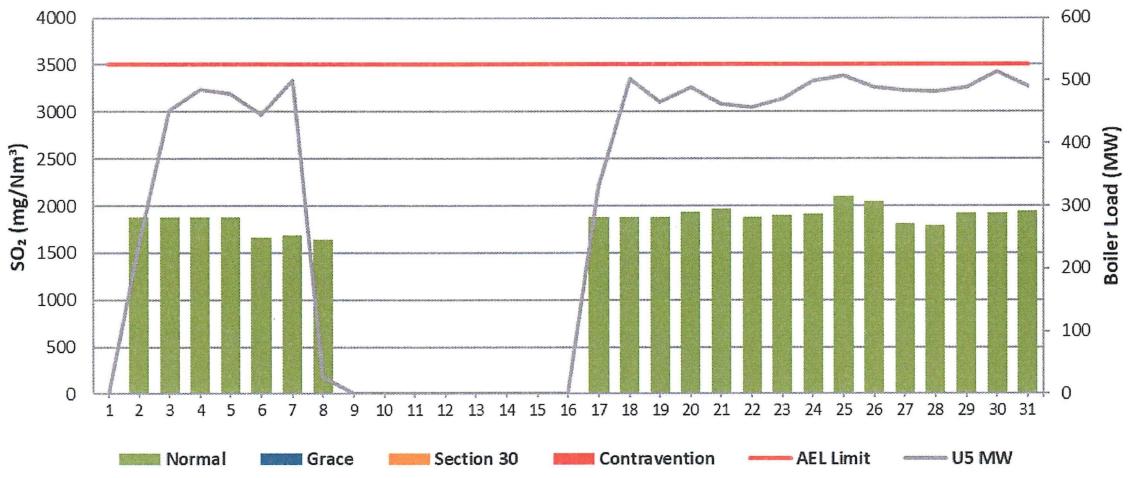
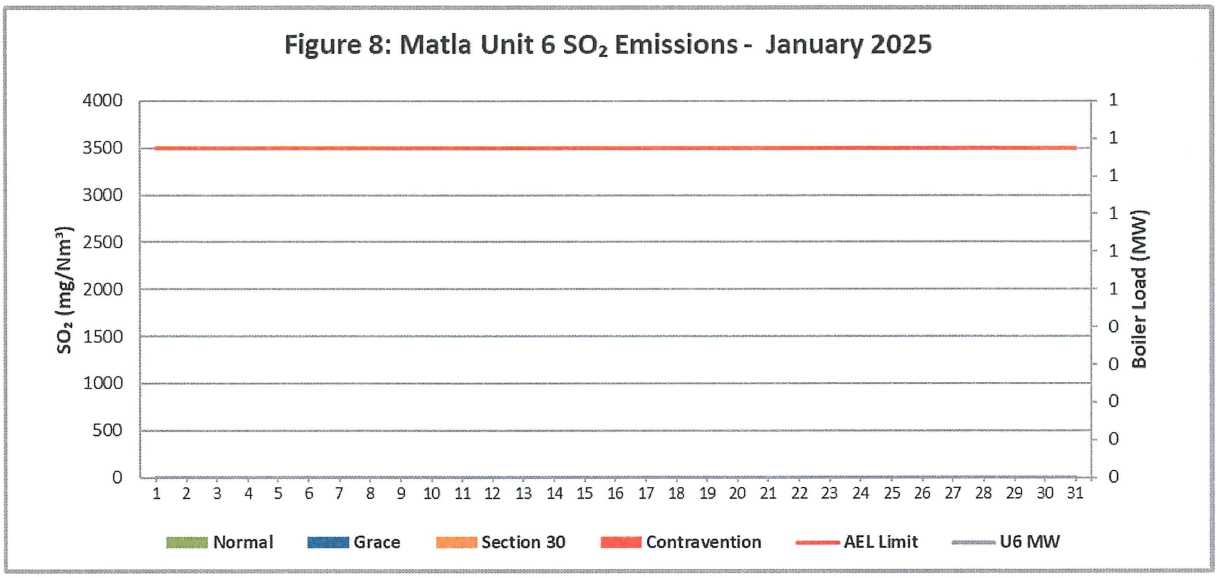


Figure 7: Matla Unit 5 SO_2 Emissions - January 2025





5.3 NOx Daily Averages

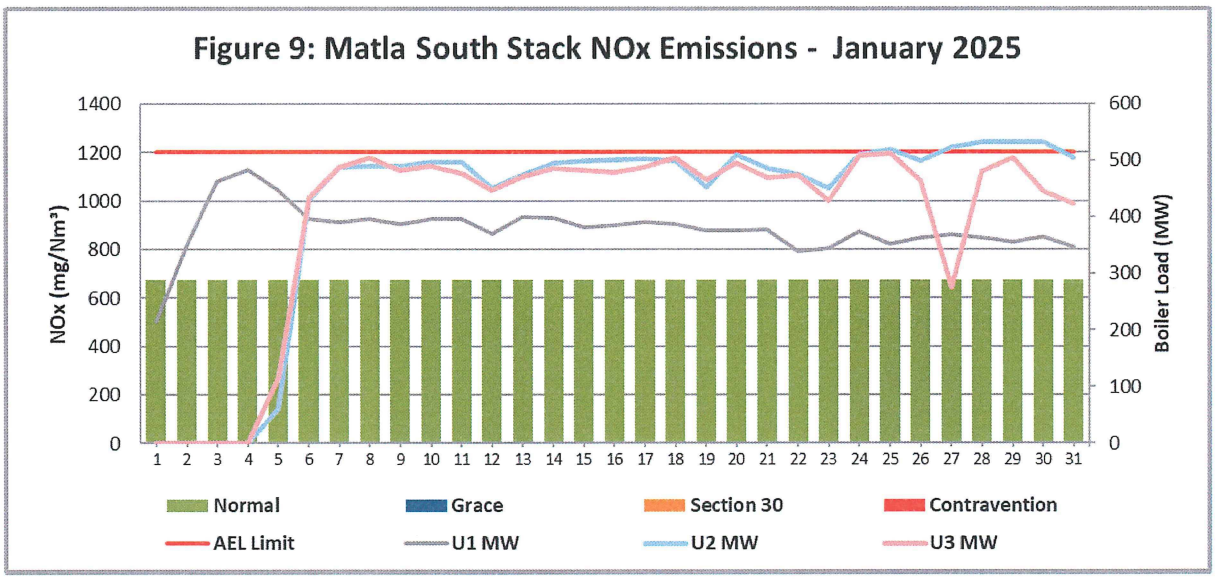


Figure 10: Matla Unit 4 NOx Emissions - January 2025

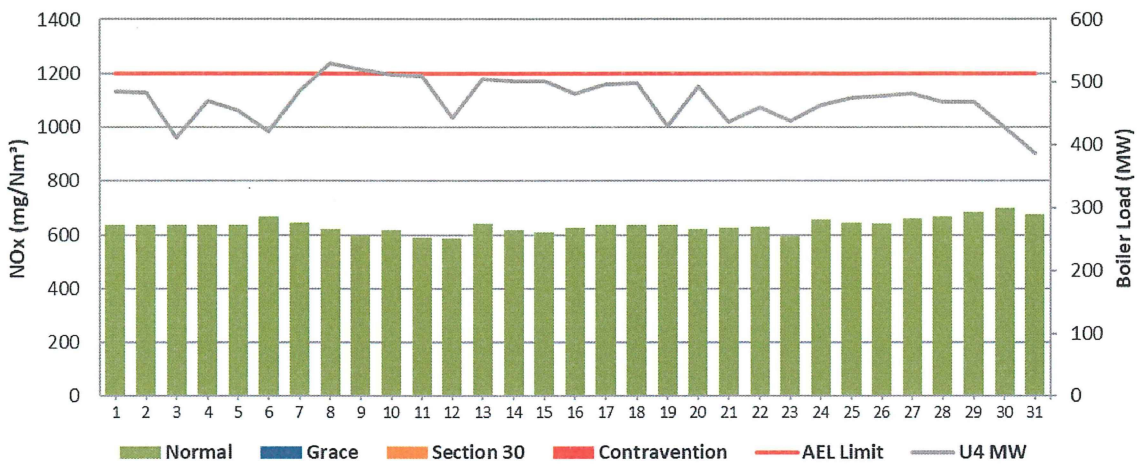
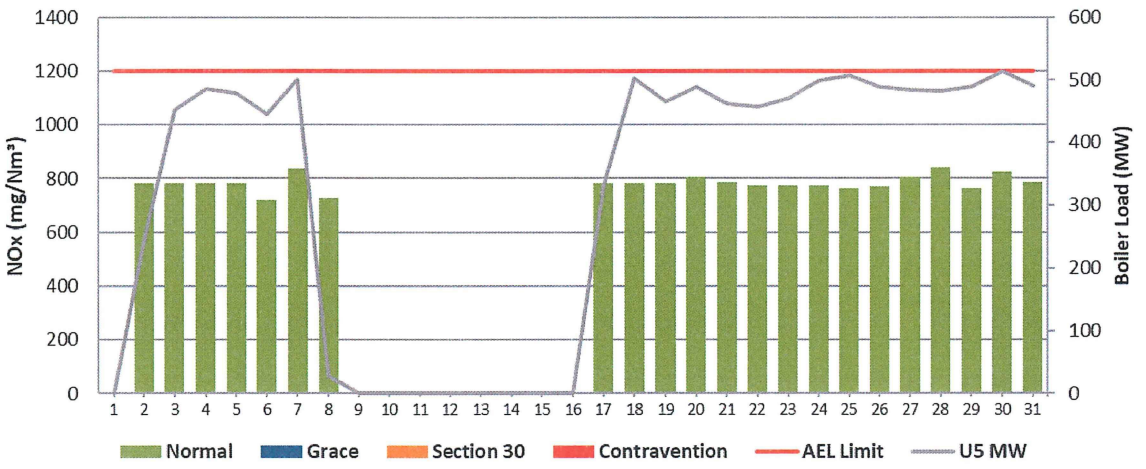


Figure 11: Matla Unit 5 NOx Emissions - January 2025



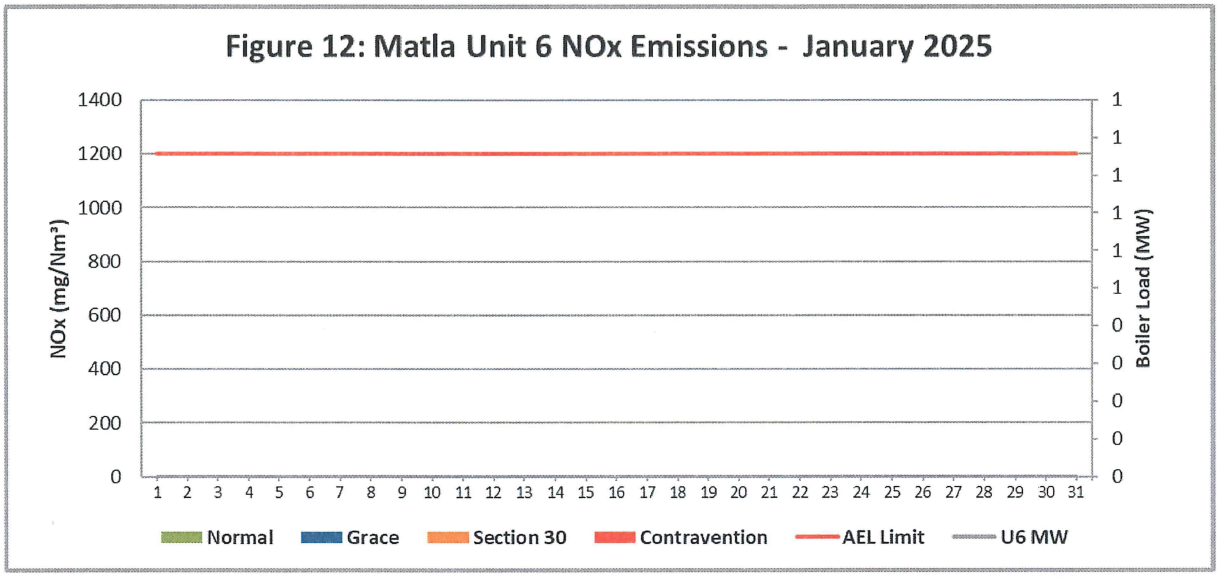


Table 5-Monthly Tonnages for 01/2025

Associated Unit/Stack	PM	SO_2	NO_2
Unit 1	260.6	2 041.7	736.3
Unit 2	477.4	3 991.7	1 439.5
Unit 3	207.8	2 083.6	751.4
Unit 4	198.1	3 383.2	1 247.8
Unit 5	162.4	1 888.1	787.9
Unit 6	Off	Off	Off
SUM	1 306.4	13 388.4	4 962.9

Table 6-Monthly Averages Concentration for 01/2025 in mg/Nm^3

Associated Unit/Stack	PM	SO_2	NO_2
South Stack	241.3	1 873.5	675.6
Unit 4	100.7	1 725.6	636.3
Unit 5	164.5	1 874.4	783.6
Unit 6	Off	Off	Off

6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
January 2025	Malfunctioning	The communication fibre cable that sends communication to the gas monitor seemed damaged because signal was not reaching the Procal server. This occurred on the 10th of December 2024, mainly on the South stack and remains unavailable on the South Stack during this reporting period. The station gas monitors have been struggling, however 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.

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	Invalid Since 31 August 2024. The station completed the tests and awaits preliminary correlation report.	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 01/2025

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