



Monthly Report

Matla Power Station

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

Document Identifier: **06C-31482**

Alternative Reference: **31482**
Number:

Area of Applicability: **Matla Power Station**

Functional Area: **Environmental Department**

Revision: **0**

Total Pages: **15**

Next Review Date: **N/A**

Disclosure Classification: **Controlled Disclosure**

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Matla Power Station December 2025 Monthly Emissions Report

Unique Identifier: 06C-31482

Revision: 0

Page: 2 of 15

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1. Introduction

MATLA POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF DECEMBER 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 December 2025 only.

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 12/2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 12/2025
	Coal	Tons/month	1 475 000	569 024
	Fuel Oil	Tons/month	3 500	1273.296

Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of 12/2025
	Energy	GWh	2 745	963.784
	Ash Produced	Tons/month	471 000	143 394.048

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 12/2025

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.706%	100%
	Electrostatic Precipitators (ESP)	99.800%	
	Electrostatic Precipitators (ESP)	99.741%	
Unit 4	Electrostatic Precipitators (ESP)	99.556%	100%
Unit 5	Electrostatic Precipitators (ESP)	99.103%	100%
Unit 6	Electrostatic Precipitators (ESP)	Off-line	Off

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

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4. Energy Source Characteristics

Table 3: Energy Source Material Characteristics for 12/2025

Characteristic	Stipulated Range (% by weight on a dry basis)	Monthly Average Content (% by weight on a dry basis)
Coal		
Sulphur Content	<1.1	0.800
Ash Content	<40	25.20
Fuel Oil		
Sulphur Content	<3.5	2.51
Ash Content	<0.1	-

5. Emissions Reporting

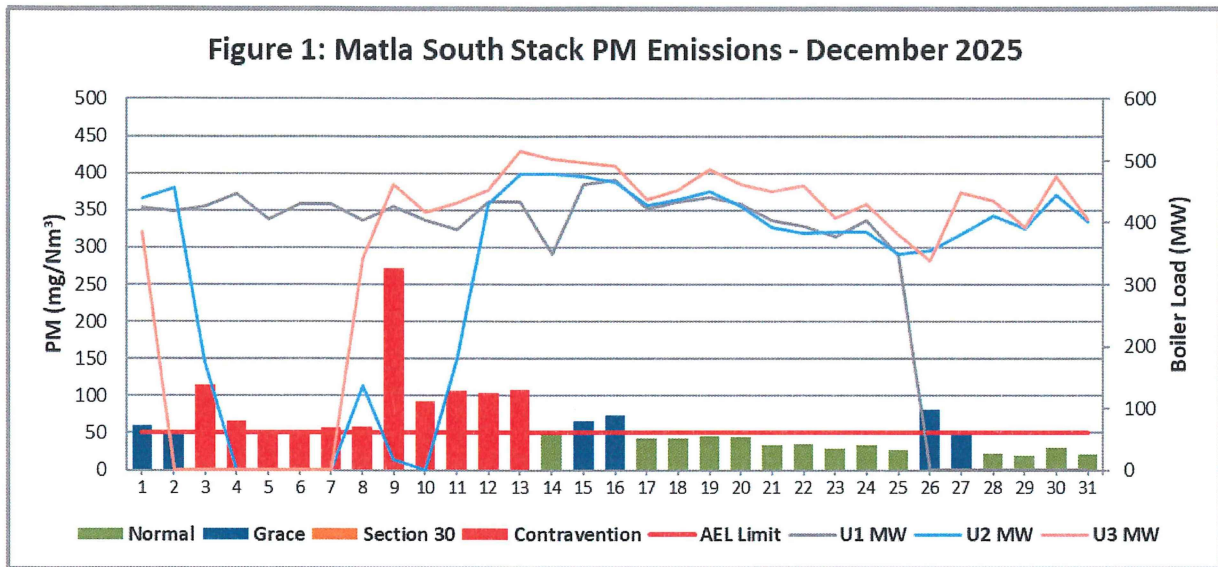
In terms of Section 59 of National Environmental Management: Air Quality Act (Act no.39 of 2004) a decision made by the Minister of DFFE, in respect of the Eskom exemption applications for new Minimum Emission Standards (MES) were granted and effective as of 01st April 2025.

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
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5.1 PM Daily Averages



Matla PS South Stack exceeded PM AEL Limit of 50mg/Nm³ on the following days:

01 – 02 /12/2025: Unit 3 was shut down for a cold reserve

03/12/2025: PM emission exceedance was due to Unit 2 shut down for boiler tube leak repairs.

04/12/2025: Unit 2 was still on forced cooling

05/12/2025: Unit 1 LH Precip field 3 tripped undervoltage and RH Precip field 2 has internal fault

06/12/2025: Unit 2 failed light up

07/12/2025: Unit 1 LH Precip field 3 tripped on undervoltage RH Precip field 2 internal faults

08/12/2025: Exceedance was due to Unit 3 synchronized on load and Unit 2 failed light up

09/12/2025: Unit 2 forced cooling

10/12/2025: Unit 1 poorly performing precip

11/12/2025: Unit 2 Light up

12/12/2025: Unit 2 and Unit 1 LH 3 precip field poorly performing

13/12/2025: Unit 2 cold light up

15/12/2025: Poor precip performance: Unit 1 LH Precip field 3 tripped on undervoltage, RH Precip field 2 internal fault and Unit 2 LH Precip field 3 tripped

16/12/2025: Unit 1 LH Precip field 3 internal fault and RH Precip field 2 internal fault

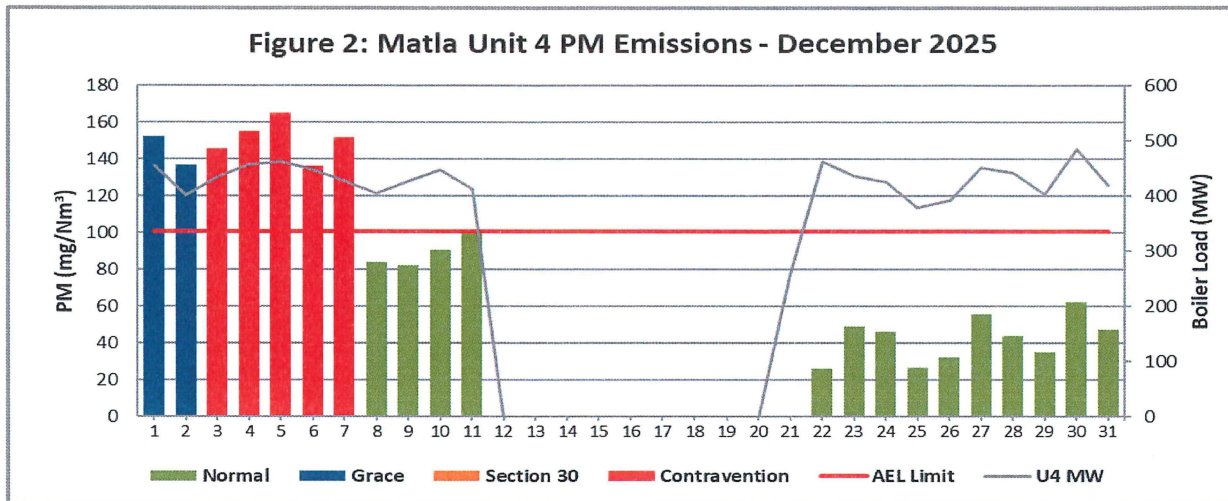
26/12/2025: Unit 1 forced cooling

27/12/2025: The PM emission exceedance on the 27th of December 2025 was due to 2 mills with oil burner support and RH PA fan tripped at Unit 2.

Matla South Stack Incurred Legal Contravention on 03/12/2025.

Root cause of the legal contravention: auto rapping at Unit 1 that loses settings from time to time (Precip Fields rapping mode changes from program one to zero)

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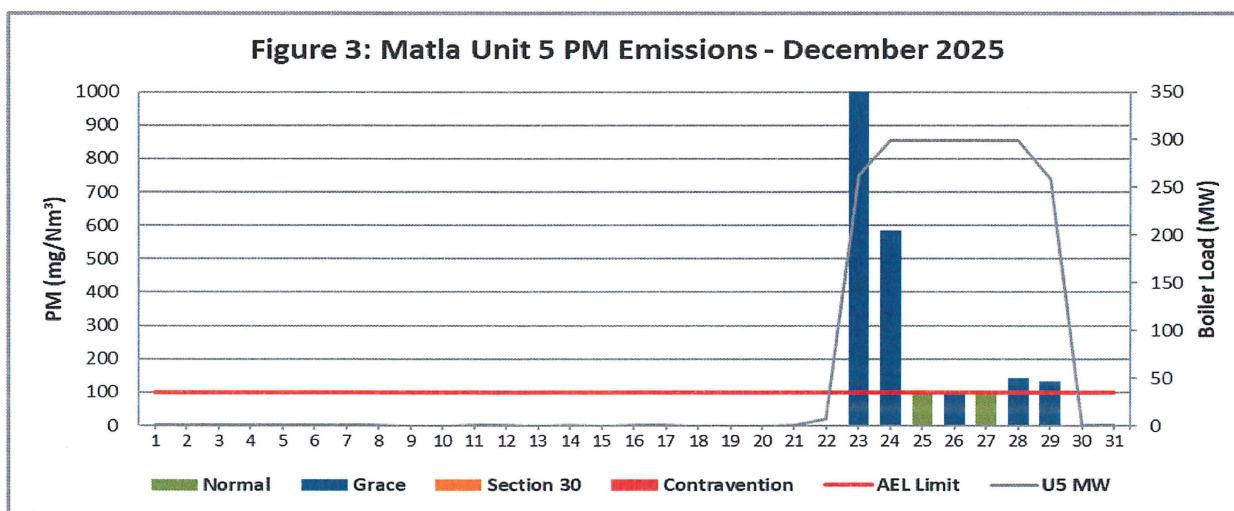


Matla PS Unit 4 exceeded PM AEL Limit of 100mg/Nm³ on the following days:

From 1 November to 7 December 2025, Unit 4 experienced continuous emission exceedances. During this period, it was suspected that the particulate matter (PM) monitor may have been malfunctioning. However, on 8 December 2025, a spot check measurement report was received from the service provider. Following analysis by Boiler Engineering, it was confirmed that the continuous exceedances observed at Matla Power Station Unit 4 were attributable to operational challenges faced by the plant.

Root cause: Various operational and construction defects on the precip (Prelim)

- Solid base on the HV room walkway instead of gratings.
- Broken antismay insulators that were not repaired/replaced since the ESP was handed over to Matla.
- Burnt marks on the insulators that link the Precip Fields.
- Bolts on Discharge Electrodes and Collecting Electrodes that were not tack welded.
- Bowed and loose plates
- Worn out turning vanes

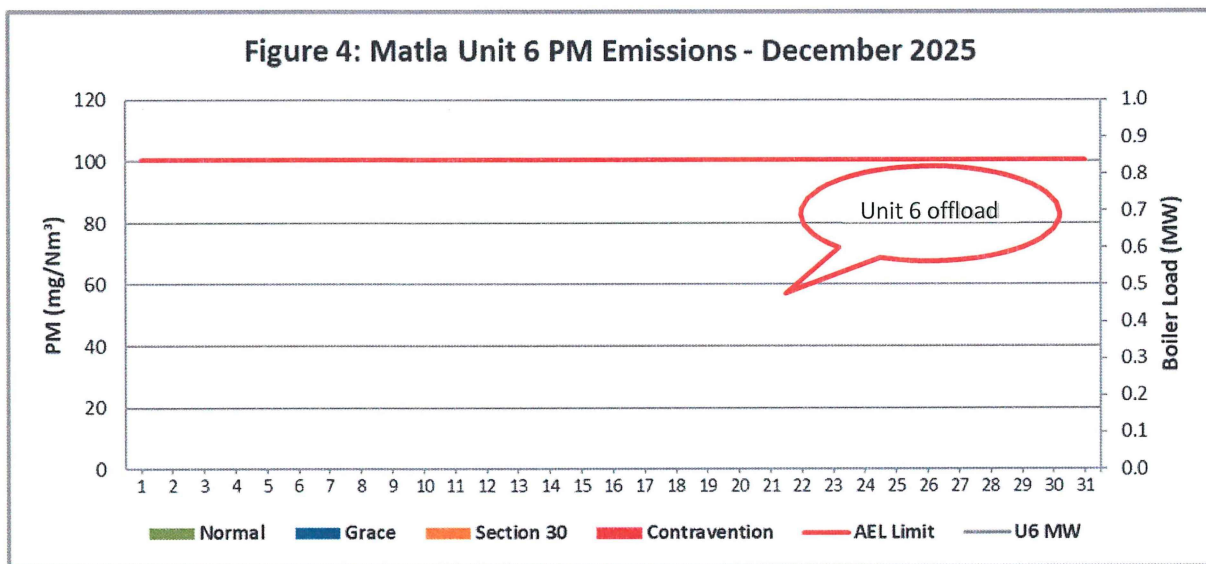


Matla PS Unit 5 exceeded PM AEL Limit of 100mg/Nm³ on the following days:

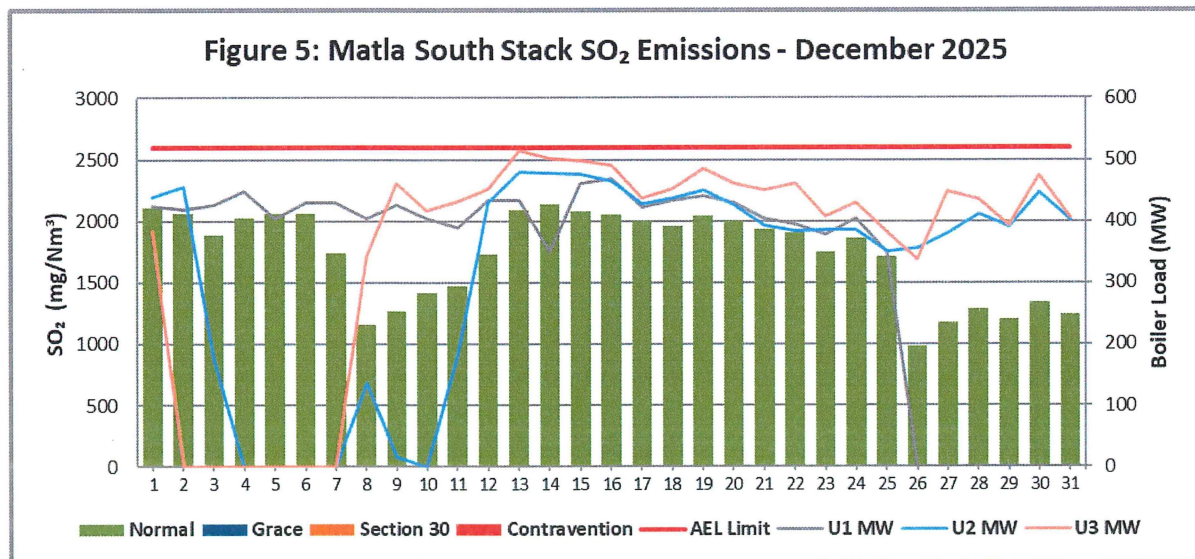
- **23/12/2025:** Unit 5 was synchronized on load (after cold light up)

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- 24/12/2025: LH Precip field 4&6 off and RH Precip field 5 off
- 26/12/2025: LH Precip field 7 tripped
- 28/12/2025: LH side precip fields were not performing
- 29/12/2025: Unit 5 shutdown for cold reserve

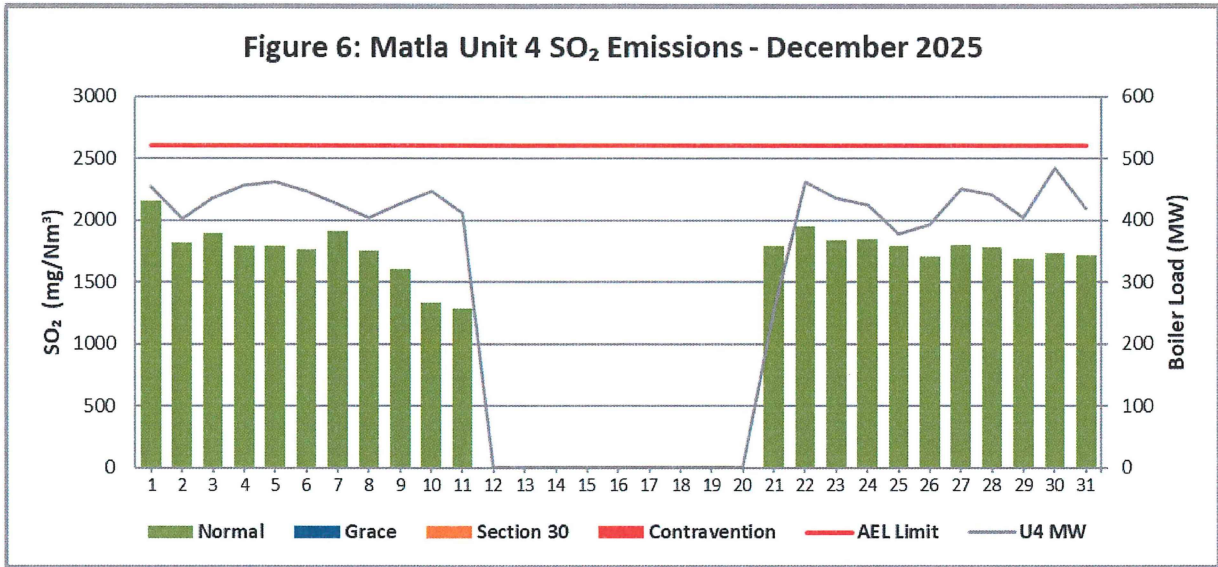


5.2 Sox Daily Averages

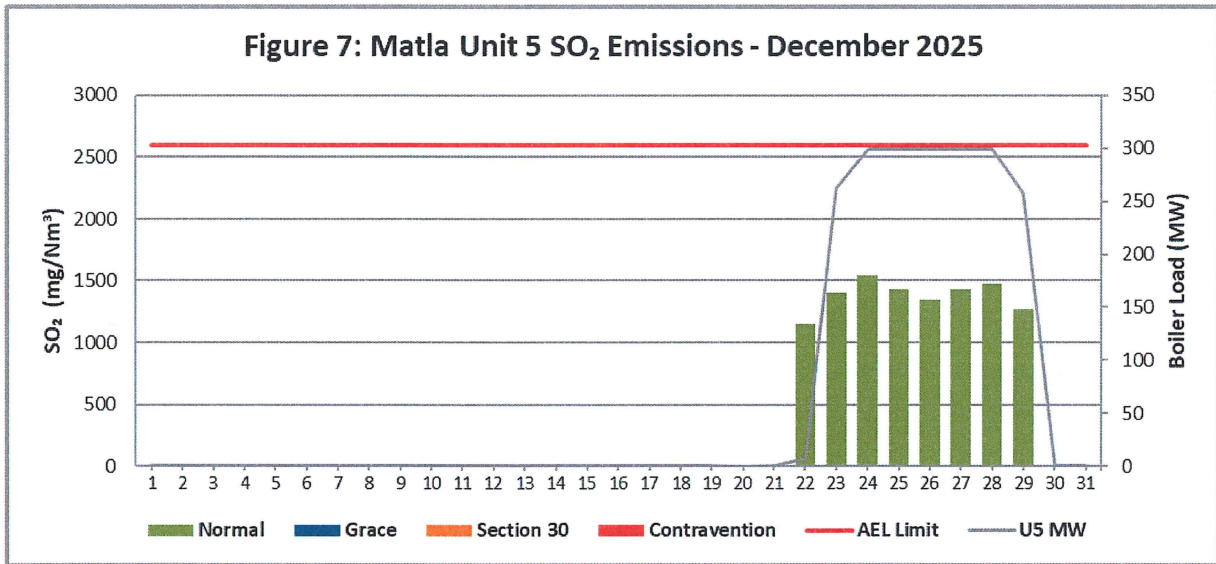


Note: Matla Power Station did not exceed SO_x limit.

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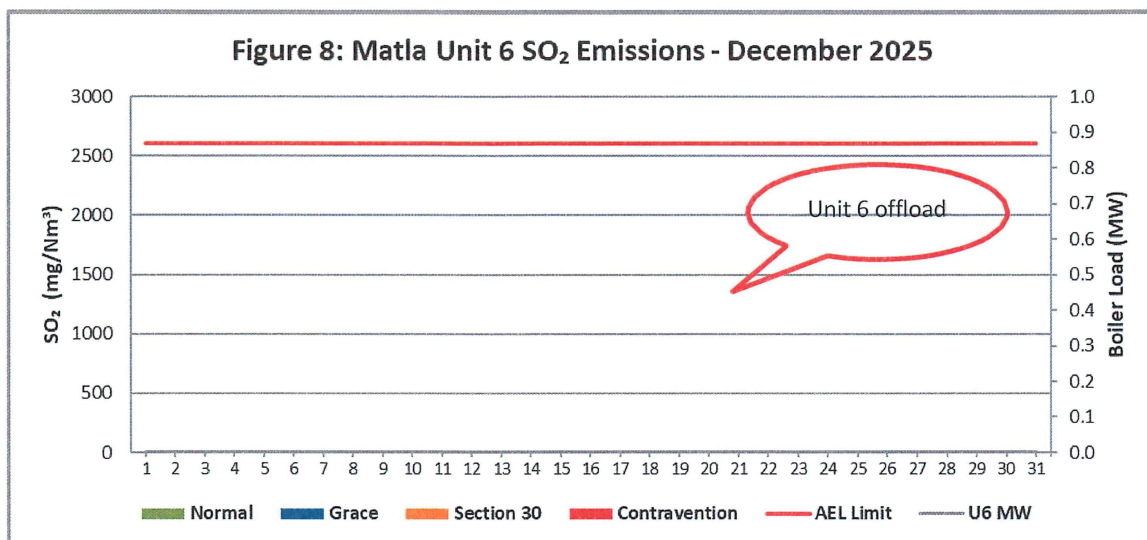


Note: Matla Power Station did not exceed SO_x limit

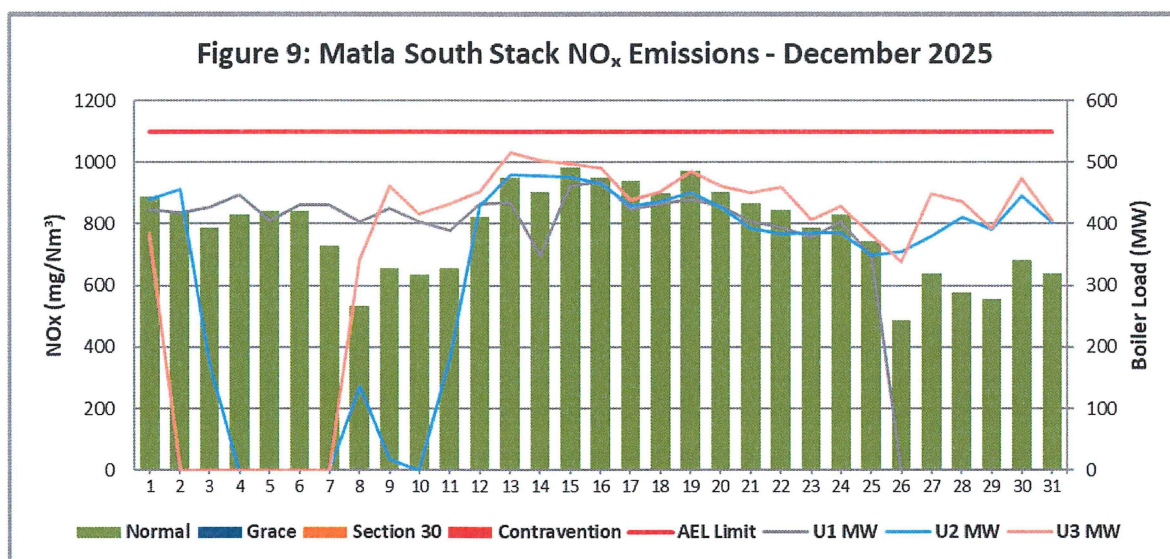


Note: Matla Power Station did not exceed SO_x limit

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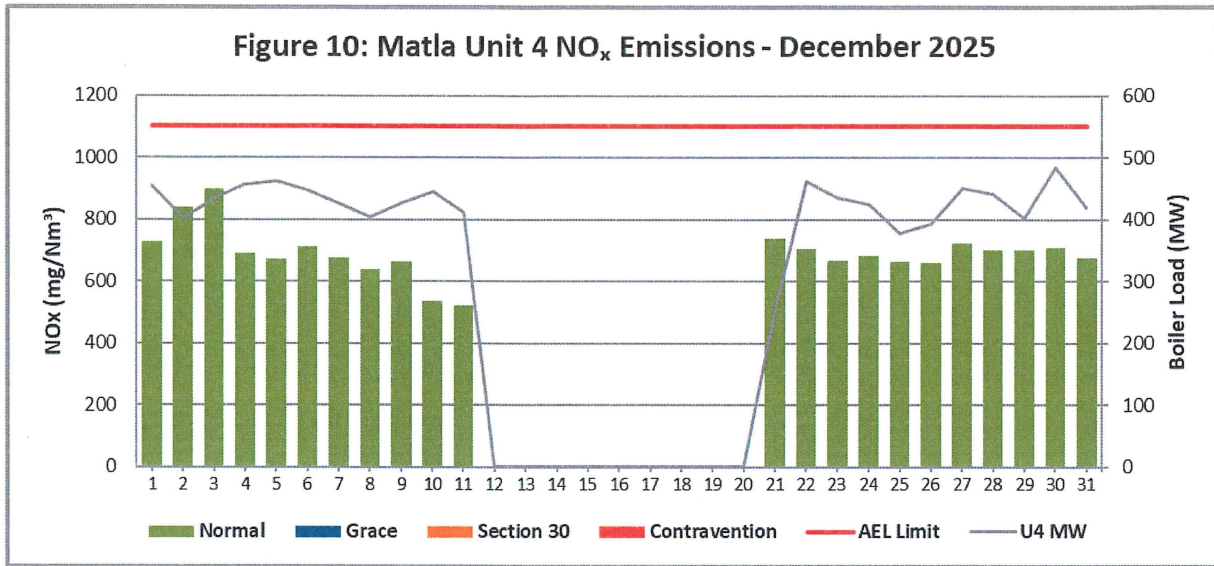


5.3 NOx Daily Averages

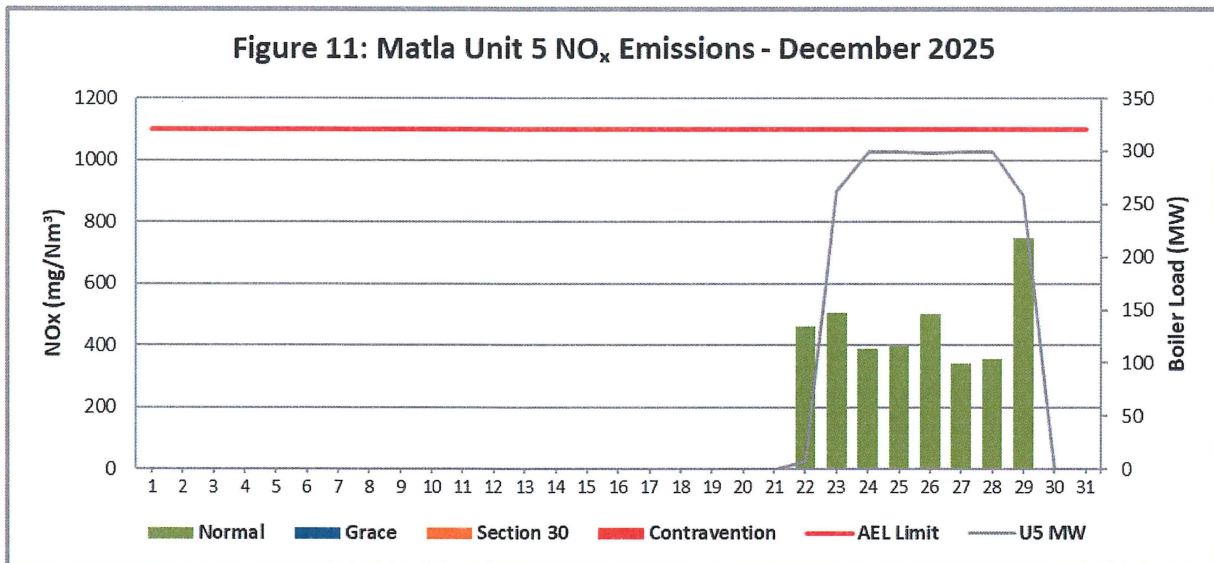


Note: Matla Power Station did not exceed NOx limit

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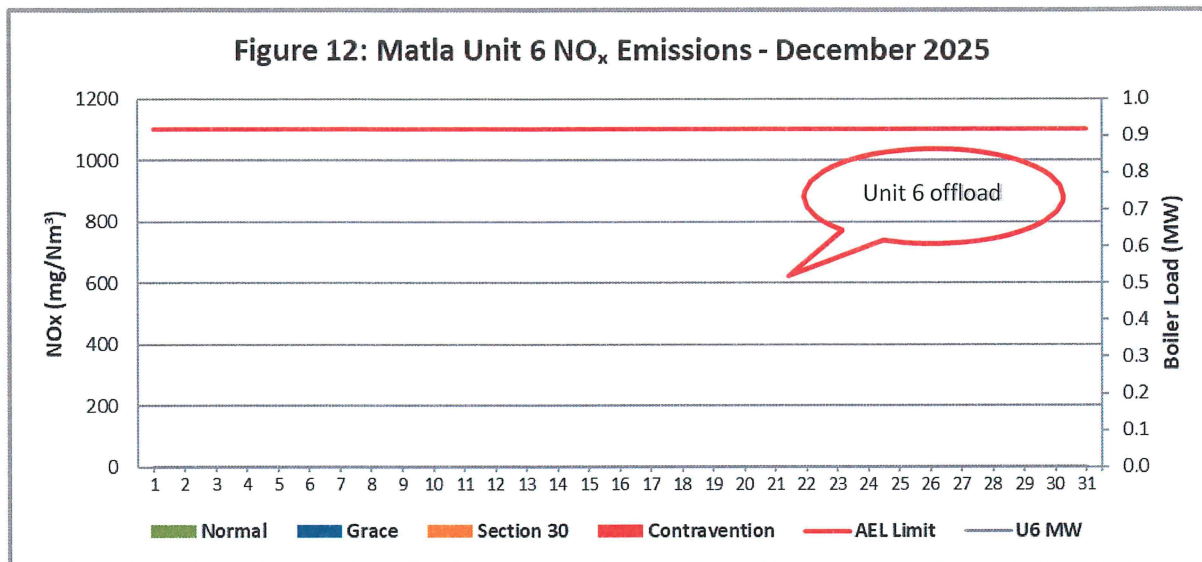


Note: Matla Power Station did not exceed NOx limit



Note: Matla Power Station did not exceed NOx limit

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Note: Matla Power Station did not exceed NOx limit

Table 5-Monthly Tonnages for 12/2025

Associated Unit/Stack	PM	SO ₂	NO ₂
Unit 1	98.4	2 610	1 163
Unit 2	57.9	2 223	1 019
Unit 3	87.1	2 432	1 125
Unit 4	120.8	2 465	967
Unit 5	52.7	481	140
Unit 6	Off	Off	Off
SUM	416.94	10 212	4 414

Table 6-Monthly Averages Concentration for 12/2025 in mg/Nm³

Associated Unit/Stack	PM	SO ₂	NO ₂
South Stack	62.9	1 732.4	781.1
Unit 4	86.9	1 767.1	693.4
Unit 5	377.9	1 529.1	461.9
Unit 6	Off	Off	Off

Table 7 – The No of hours, over a period of 24 hours, for which PM emissions exceeded limit

Associated Unit/Stack	Dates	Number of hours
	01/12/2025	11 hours
	02/12/2025	24 hours
	03/12/2025	22 hours

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South Stack	04/12/2025	14 hours
	05/12/2025	10 hours
	06/12/2025	16 hours
	07/12/2025	17 hours
	08/12/2025	24 hours
	09/12/2025	24 hours
	10/12/2025	23 hours
	11/12/2025	23 hours
	12/12/2025	20 hours
	13/12/2025	24 hours
	15/12/2025	20 hours
	16/12/2025	20 hours
	26/12/2025	15 hours
	27/12/2025	3 hours

Associated Unit/Stack	Dates	Number of hours
Unit 4	01/12/2025	24 hours
	02/12/2025	17 hours
	03/12/2025	16 hours
	04/12/2025	20 hours
	05/12/2025	22 hours
	06/12/2025	18 hours
	07/12/2025	11 hours

Associated Unit/Stack	Dates	Number of hours
Unit 5	22/12/2025	24 hours
	23/12/2025	24 hours
	24/12/2025	24 hours
	26/12/2025	11 hours
	28/12/2025	8 hours
	29/12/2025	8 hours

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6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
December 2025	Gas Monitor reliability low	The station gas monitoring system recorded no O ₂ readings at the South Stack. Additionally, Unit 5 CO ₂ +O ₂ relationship was not in spec even though the gas monitoring system is recording both parameters. However, parallel tests averages were used for the purpose of accurate reporting of the gases during this reporting period.
	PM CEMS low data reliability	PM monitor low reliability on Unit 5 was mainly due to the monitor maxing out during cold light up. This was primarily due to the PM monitor reaching its maximum measurement limit during cold light-up conditions, resulting in low monitor reliability readings for the affected period.

Table 8-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO ₂	NO ₂	O ₂
South Stack	98.9	98.8	99.7	60.8
Unit 4	99.2	93.2	93.9	57.2
Unit 5	79.4	100.0	78.6	100.0
Unit 6	Off	Off	Off	Off

Note: Parallel tests averages were used on South Stack and Unit 5 CO₂ and O₂ 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.

7. CEMS Calibration and Equipment Used for Calibration

Calibration certificates to be made available upon request.

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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 2027
Unit 4	Valid until 19 May 2025 - (Spot check curve in use and it expired in September 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 (The unit has been off since December 2024 , therefore test cannot be conducted)

9. Complaint Register

Table 10-Complaints for the month of 12/2025

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

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