	Monthly Report	Matla Power Station
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Matla Power Station Monthly Emissions Report

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Page: 2 of 13

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Content

1. Introduction.....	4
2. Raw Materials and Products.....	4
3. Abatement Technology.....	4
4. Energy Source Characteristics	5
5. Emissions Reporting.....	5
5.1 PM Daily Averages.....	5
5.2 Sox Daily Averages.....	7
5.3 NOx Daily Averages.....	9
6. Continuous Emissions Monitoring System (CEMS)	12
7. CEMS Calibration and Equipment Used for Calibration	12
8. Validity of Correlation and Parallel Test.....	12
9. Complaint Register.....	13

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1. Introduction

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

2. Raw Materials and Products

Table 1- Quantity of Raw Materials and Products Consumption in 12/2024

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – 12/2024
	Coal	Tons/month	1 475 000	731 843
	Fuel Oil	Tons/month	3 500	1 531
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of 12/2024
	Energy	GWh	2 745	1 176
	Ash Emitted	Tons/month	471 000	205 721

3. Abatement Technology

Table 2-Abatement Equipment Control Technology Efficiency in 12/2024

Associated Unit/Stack	Technology Type	Efficiency	ESP Utilization
South Stack (Unit 1, 2 and 3)	Electrostatic Precipitators (ESP)	99.480%	100%
	Electrostatic Precipitators (ESP)		
	Electrostatic Precipitators (ESP)		
Unit 4	Electrostatic Precipitators (ESP)	99.698%	100%
Unit 5	Electrostatic Precipitators (ESP)	99.812%	100%
Unit 6	Electrostatic Precipitators (ESP)	99.276%	100%

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 12/2024

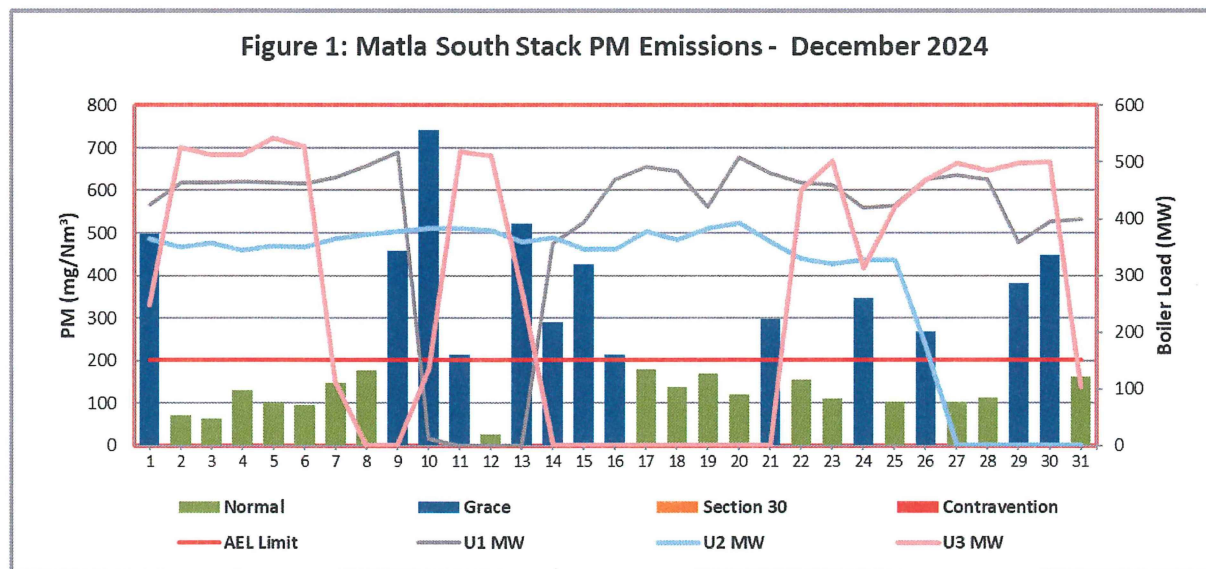
Characteristic	Stipulated Range (% by weight on a dry basis)	Monthly Average Content (% by weight on a dry basis)
Coal		
Sulphur Content	0.8-1.1	1.00
Ash Content	21-40	28.11

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
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5.1 PM Daily Averages

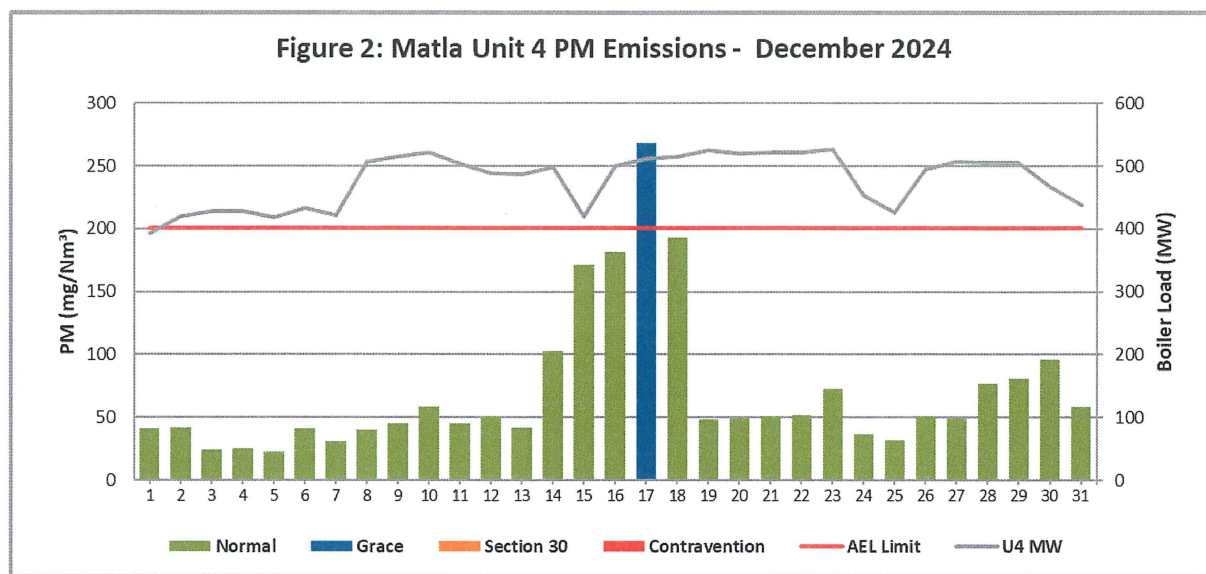
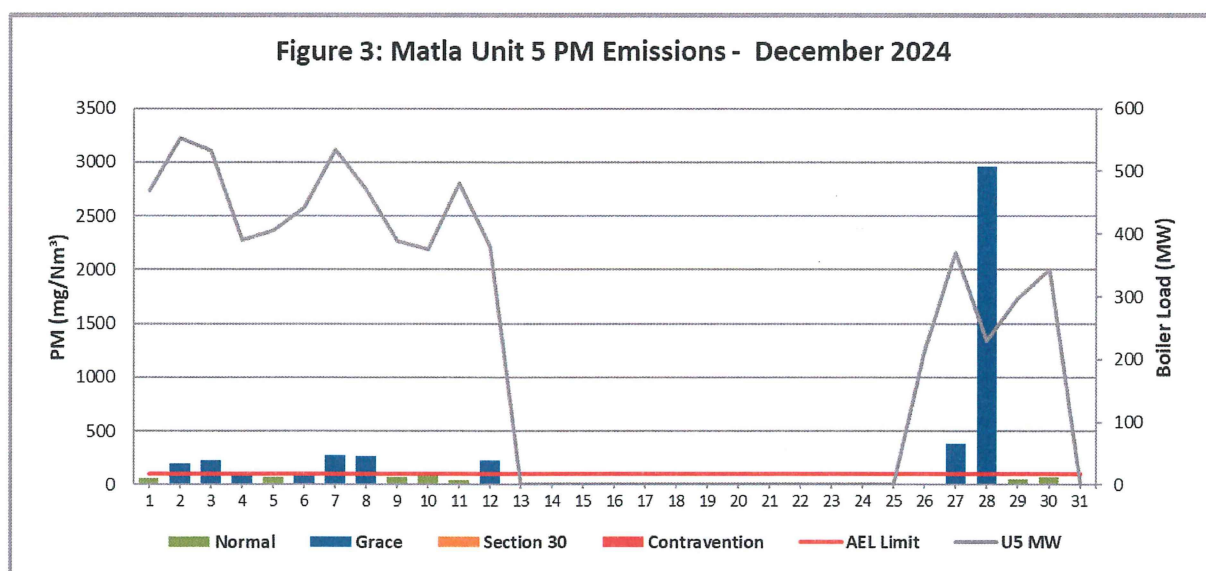


Matla Common South Stack Exceeded PM AEL limit of 200 from 09-11 December 2024. Matla unit 3 had shut down on the 07th of December 2024 at 05:05 and on the 09th of December 2024, unit 1 SO₃ plant tripped at 05:10. On the 10th of December 2024 at 01:55, unit 1 was shut down and unit 3 was synchronized on cold-light up the same day at 15:10.

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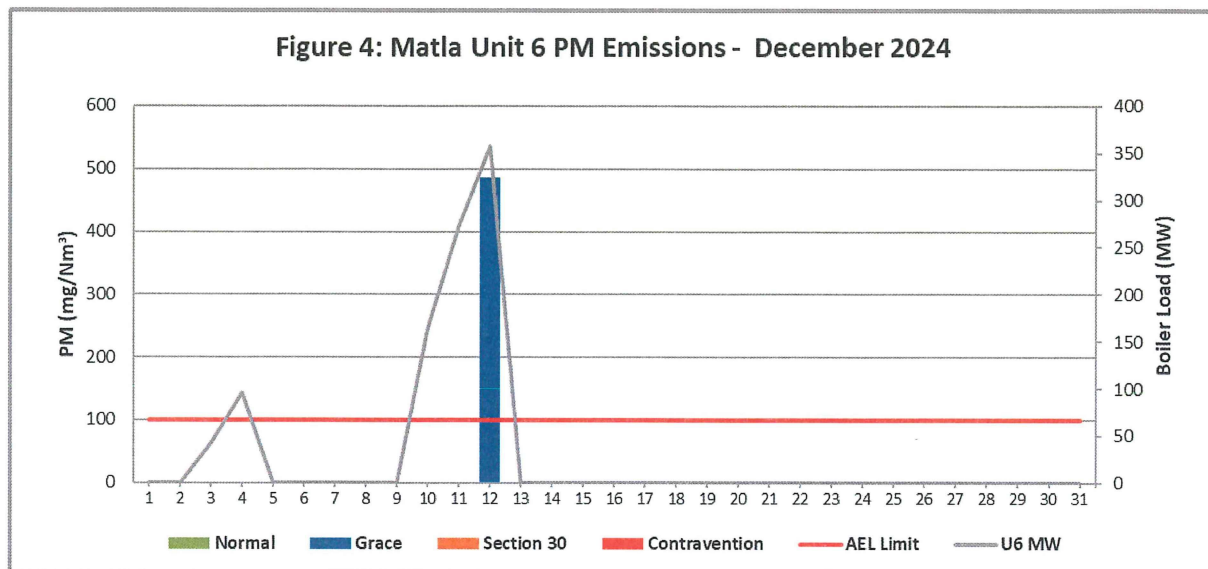
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Matla Common South Stack Exceeded PM AEL limit of 200 from 14-16 December 2024. Matla Unit 1 cold light up commenced on the 13th of December 2024 at 21:00, synchronised on load on the 14th December 2024 01:55 and within the same period the station SO₃ common plant had tripped on the same day at 17:23. On the 15th of December 2024, the station SO₃ common plant was still OFF in the morning and came back to service @15:02pm. On the 16th of December 2024 unit 2 precips still recovering from lack of SO₃ flow and L/H 1&6 were not in service as well as R/H 5, tripping on under voltage. The incidents were within grace period within this reporting period.

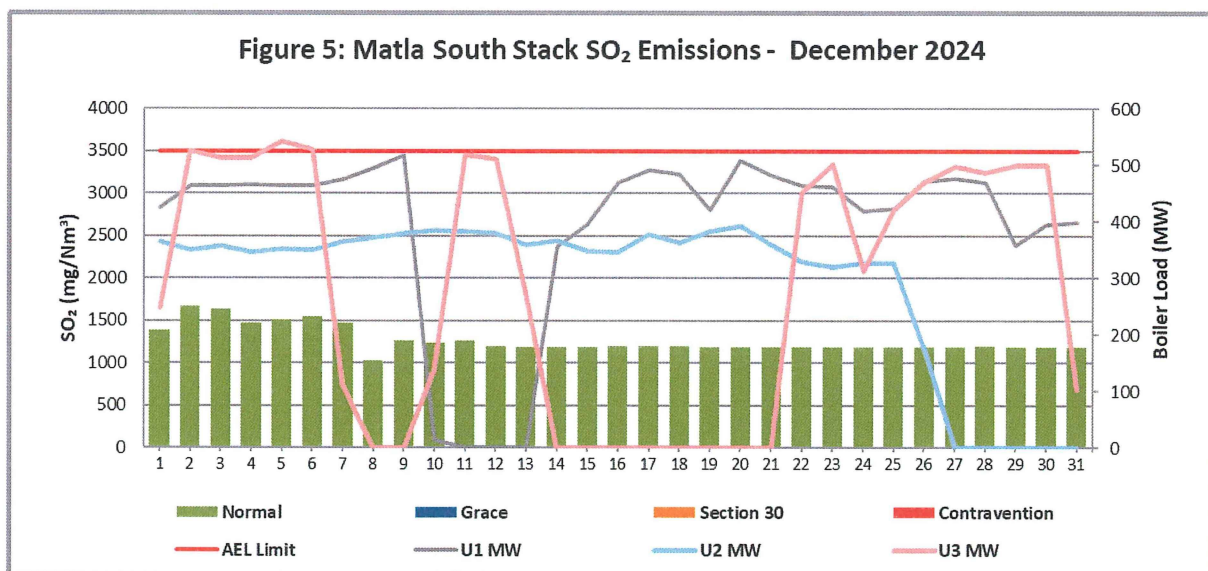
Figure 2: Matla Unit 4 PM Emissions - December 2024**Figure 3: Matla Unit 5 PM Emissions - December 2024****CONTROLLED DISCLOSURE**

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Figure 4: Matla Unit 6 PM Emissions - December 2024

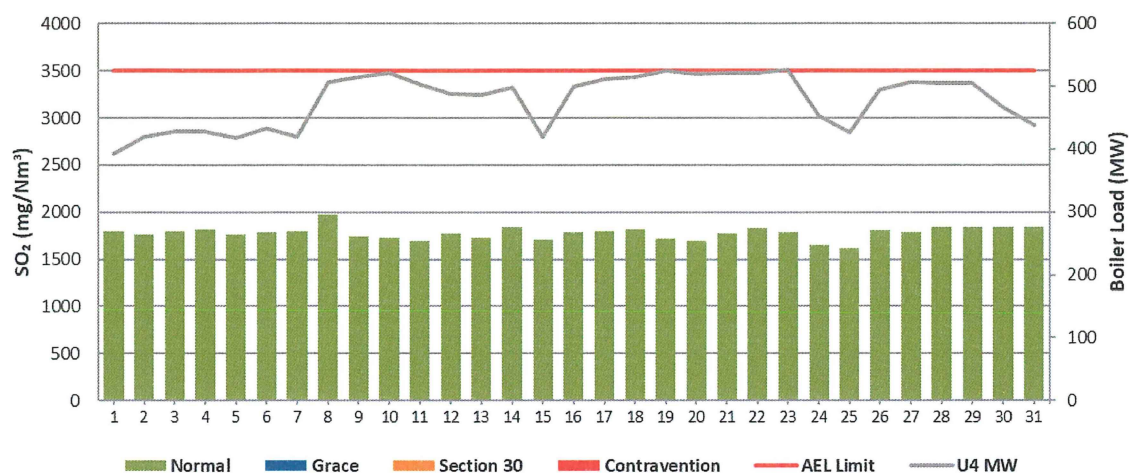
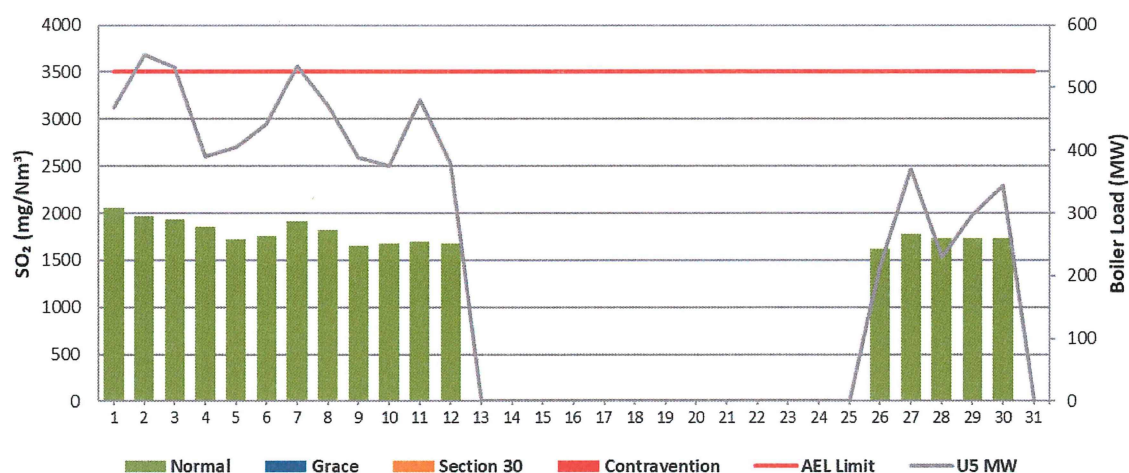


5.2 Sox Daily Averages

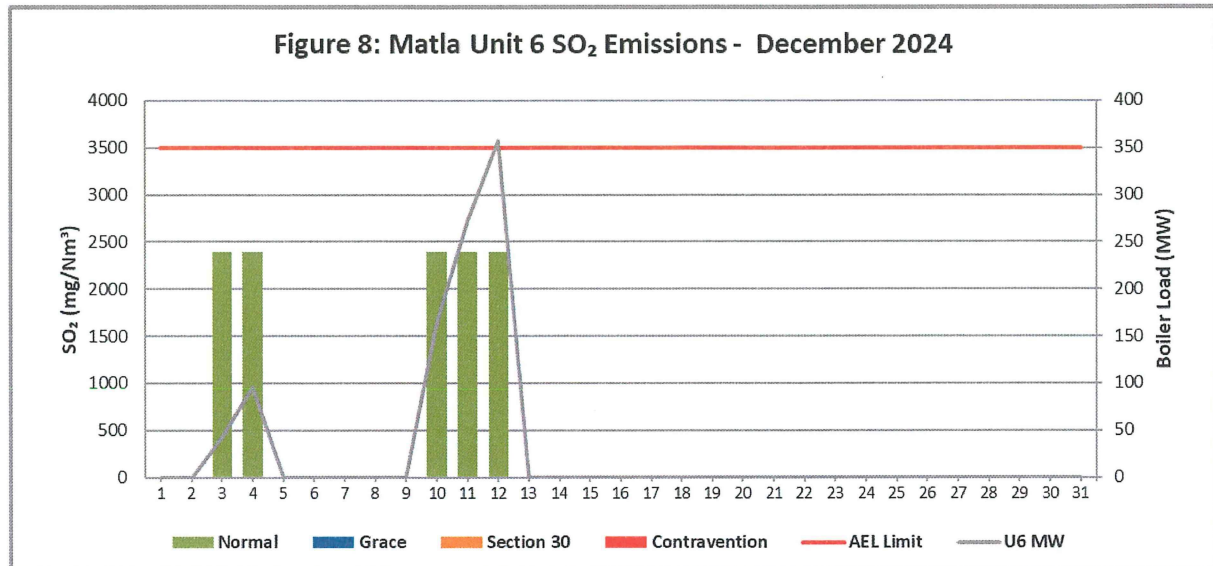
Figure 5: Matla South Stack SO₂ Emissions - December 2024

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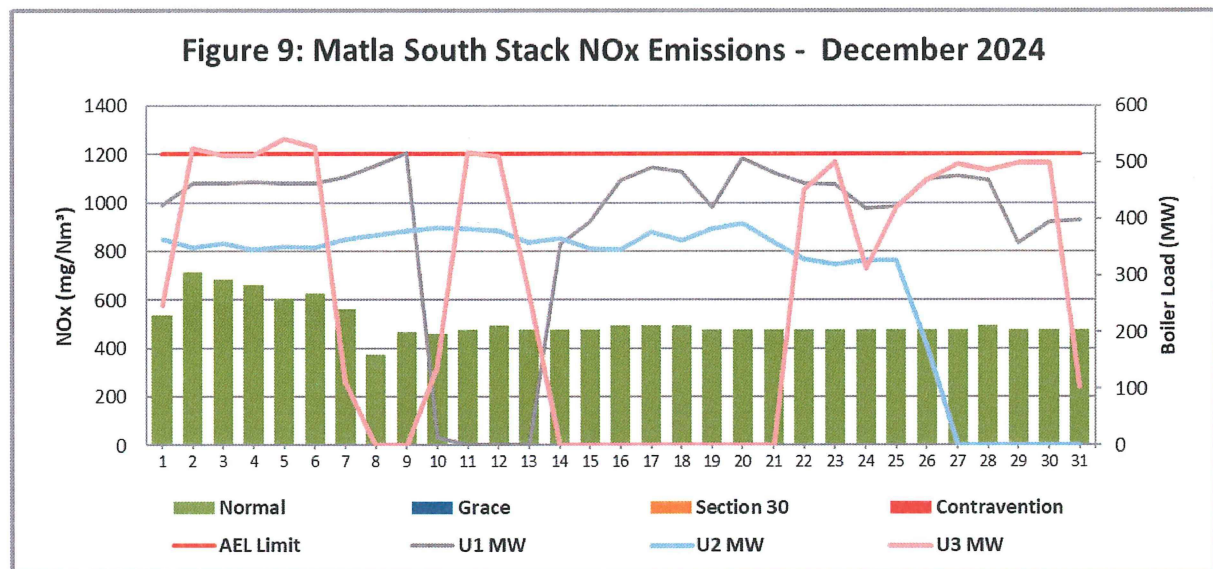
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Figure 6: Matla Unit 4 SO₂ Emissions - December 2024Figure 7: Matla Unit 5 SO₂ Emissions - December 2024**CONTROLLED DISCLOSURE**

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Figure 8: Matla Unit 6 SO₂ Emissions - December 2024

5.3 NO_x Daily Averages

Figure 9: Matla South Stack NO_x Emissions - December 2024

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Figure 10: Matla Unit 4 NOx Emissions - December 2024

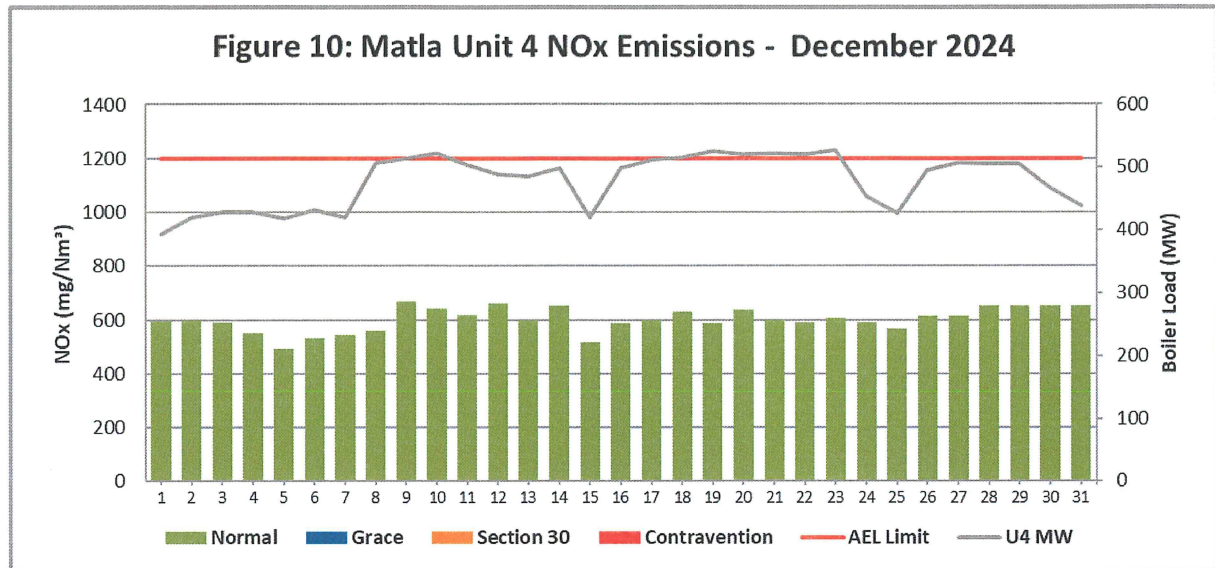
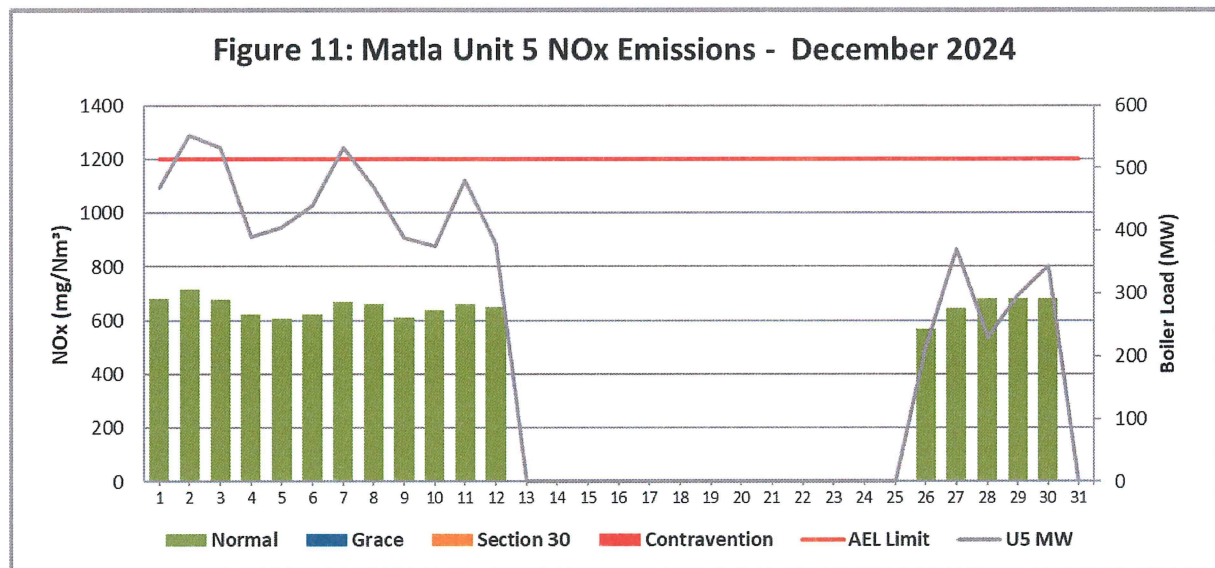


Figure 11: Matla Unit 5 NOx Emissions - December 2024



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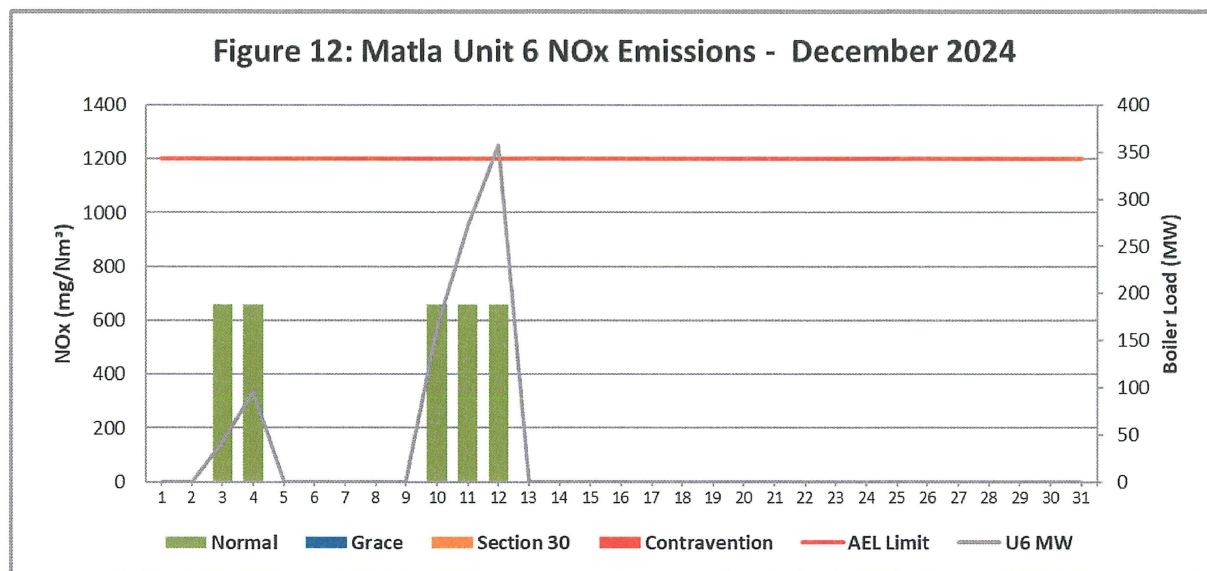


Table 5-Monthly Tonnages for 12/2024

Associated Unit/Stack	PM	SO ₂	NO ₂
Unit 1	174.0	1 102.8	446.1
Unit 2	445.0	2 451.2	985.8
Unit 3	119.5	862.8	353.7
Unit 4	136.5	3 393.9	1 152.0
Unit 5	224.6	1 291.3	468.6
Unit 6	11.2	54.9	15.1
SUM	1 110.8	9 156.9	3 421.3

Table 6-Monthly Averages Concentration for 12/2024 in mg/Nm³

Associated Unit/Stack	PM	SO ₂	NO ₂
South Stack	234.5	1 266.6	510.0
Unit 4	70.4	1 778.2	601.4
Unit 5	325.6	1 784.3	651.3
Unit 6	486.6	2 387.4	657.3

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6. Continuous Emissions Monitoring System (CEMS)

Table 7- Periods during which was inoperative/malfunctioning.

Date	CEMS status	Comments
December 2024	Malfunctioning	<p>The communication fibre to the gas monitor got damaged and there was no communication with Procal server. This occurred on the 10th of December 2024, mainly on the South stack and on the 13th of December 2024 at unit 4. Communication was restored at unit 4 on the 19th of December 2024 but remains unavailable on the South Stack during this reporting period. South stack monitor power supply found defective and replaced. The station gas monitors have been struggling, however parallel tests averages were used for the purpose of accurate reporting of the gases.</p> <p>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.</p>

Table 8-CEMS Monitor Reliability Percentage

Associated Unit/Stack	PM	SO ₂	NO ₂	O ₂
South Stack	87.9	-	-	-
Unit 4	100.0	-	-	-
Unit 5	93.9	-	-	-
Unit 6	100.0	-	-	-

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, Target completion Date for the Test is 05 February 2025. Delayed due to poor emissions performance on South Stack.	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

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Unit 6

Valid until 02 August 2026

Valid until 30 June 2025

9. Complaint Register

Table 10-Complaints for the month of 12/2024

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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