Eskom

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Date:
19 January 2026

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MAJUBA POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF DECEMBER 2025

This serves as the monthly report required in terms of Majuba Power Station's Atmospheric Emission License (Dr PKI Seme/Eskom H SOC Ltd MPS/0014/2025/F05) under section 7.4 Point source – emissions monitoring and reporting requirements. The emissions are for the month of December 2025. Verified emissions of Particulate Matter, SO_2 and NOx (as NO_2) are included for all units. Greenhouse gases are excluded as per the agreement reached between Eskom and the Department of Forestry, Fisheries and the Environmental in the first quarter of 2017/18 financial year's MINTEC and MINMEC management meeting.

Raw Materials and Products

Table 1. Quantity of Raw Materials and Products used/produced for the month of December 2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of December 2025
	Coal	Tons/month	1 800 000	889 027
	Fuel Oil	Tons/month	6 000	6 245
Production Rates	**Product/ By-Product Name**	**Unit**	**Maximum Production Rate Permitted (Quantity)**	**Production Rate in Month of December 2025**
	Energy	GWh	3 058	1 449
	Ash	Tons/month	429 746	232 836

Abatement Technology

Table 2. Abatement Equipment Control Technology for the month of December 2025

Associated Unit	Technology Type	Actual Utilisation (%) for the month of December 2025	*Minimum Control Efficiency (%)
Unit 1	Fabric Filter Plant	100	99.94
Unit 2	Fabric Filter Plant	100	99.83
Unit 3	Fabric Filter Plant	100	99.90
Unit 4	Fabric Filter Plant	100	99.98
Unit 5	Fabric Filter Plant	100	99.93
Unit 6	Fabric Filter Plant	100	99.94

*Calculated from the assumption of 90% fly ash to 10% bottom ash and percentage ash as measured in coal

Energy Source Characteristics

Table 3. Energy Source Material Characteristics for the month of December 2025

Raw Material	Coal		Fuel Oil	
Characteristic	Stipulated Limit (%)	Monthly Average Content	Stipulated Limit (%)	Monthly Average Content
Sulphur Content	<1.25	0.62	<3.5	2.89
Ash Content	<33.84	26.19	0.1	

Emissions Reporting

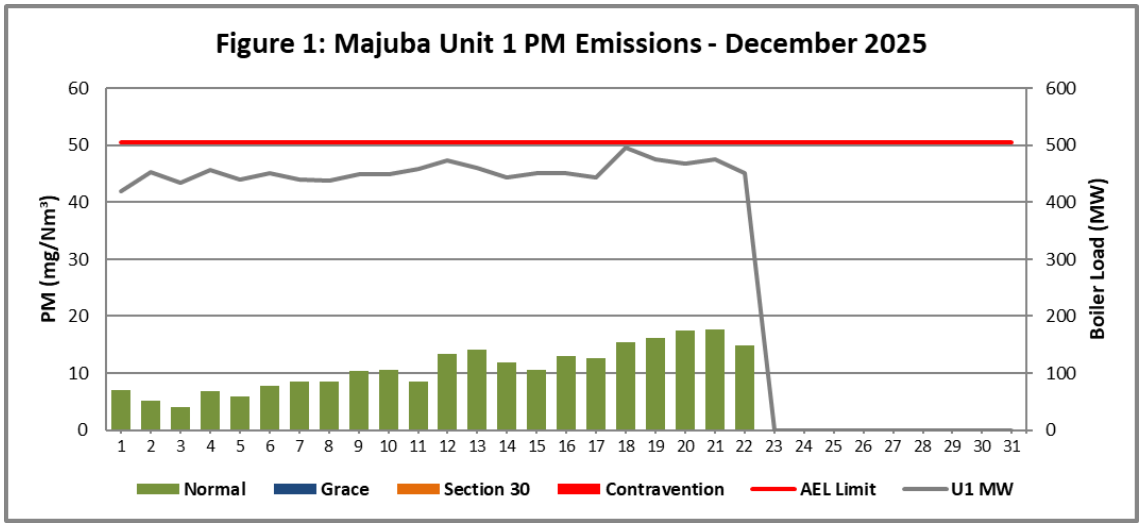


Figure 1. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 1.

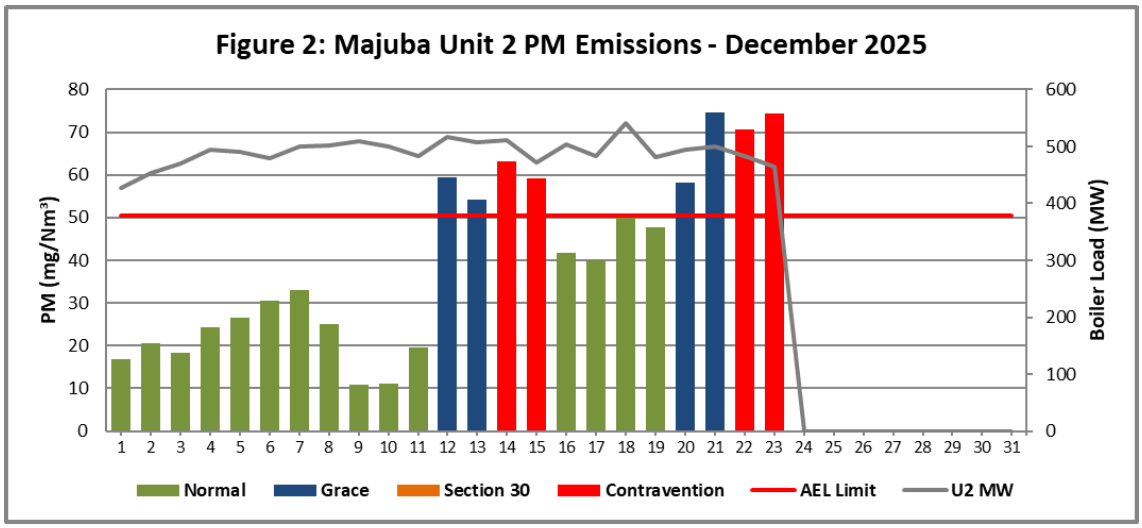


Figure 2. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 2.

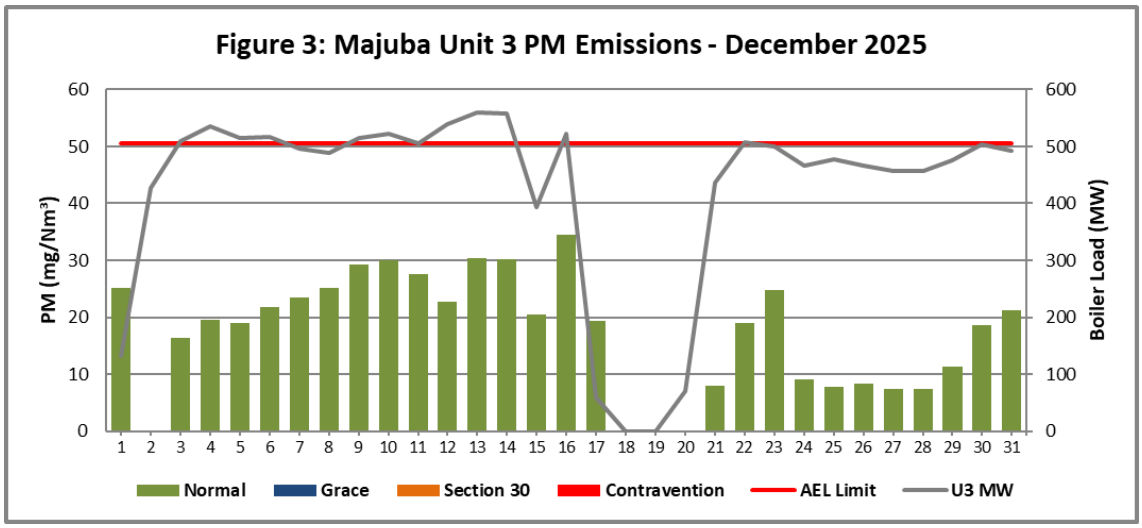


Figure 3. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 3.

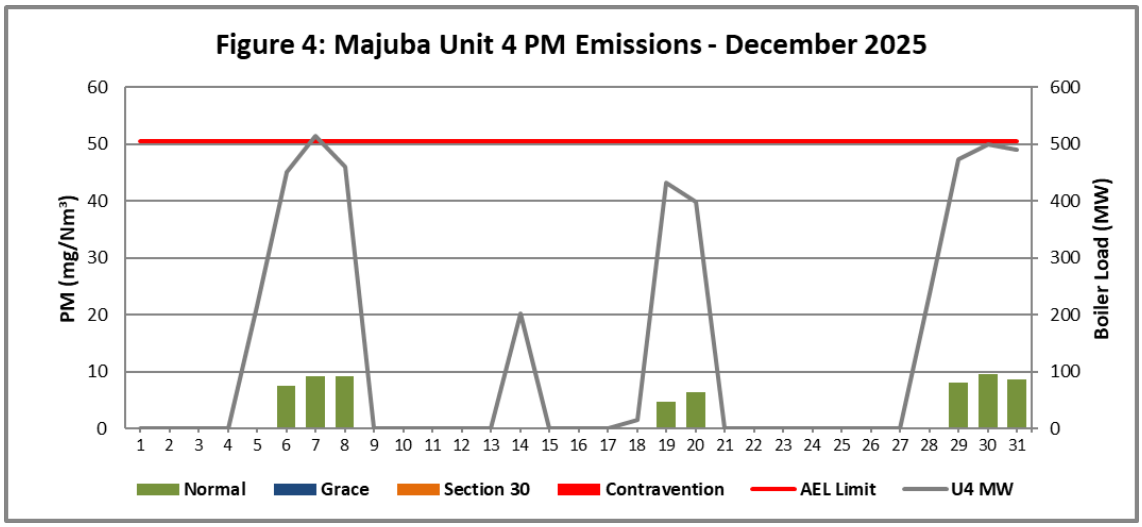


Figure 4. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 4.

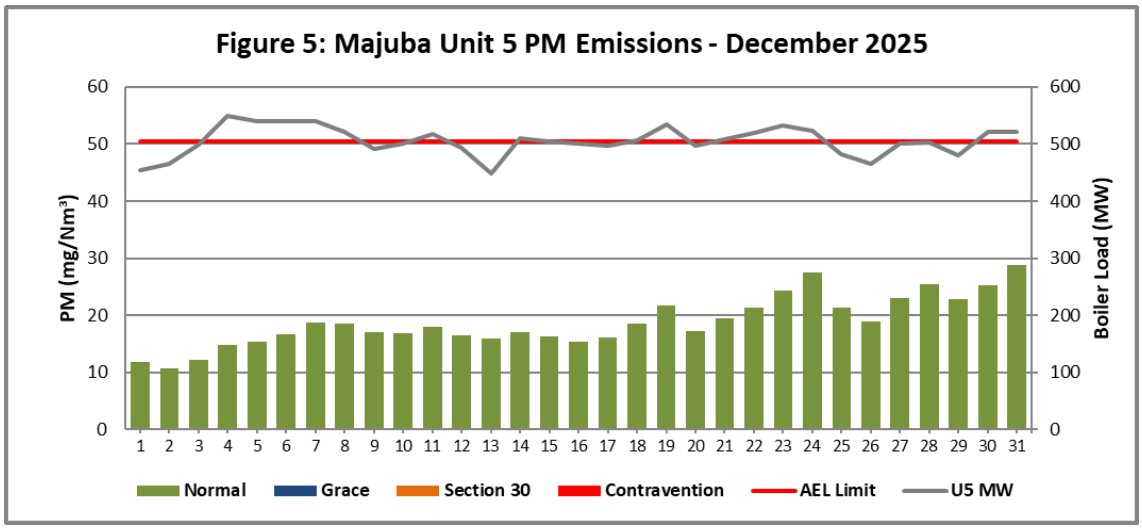


Figure 5. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 5.

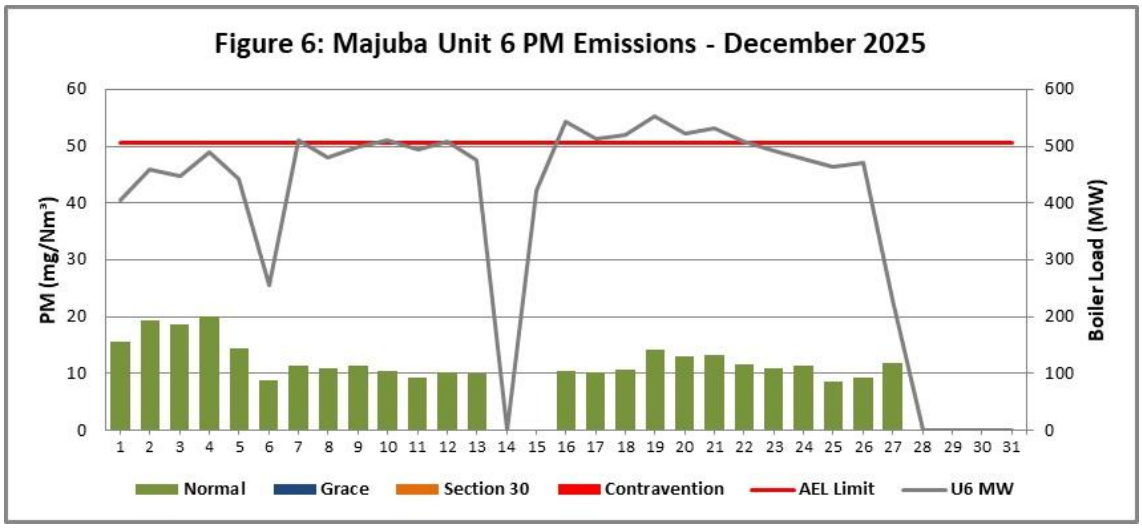


Figure 6. Particulate Matter emissions (daily averages) for the month of December 2025 against emission limit for Unit 6.

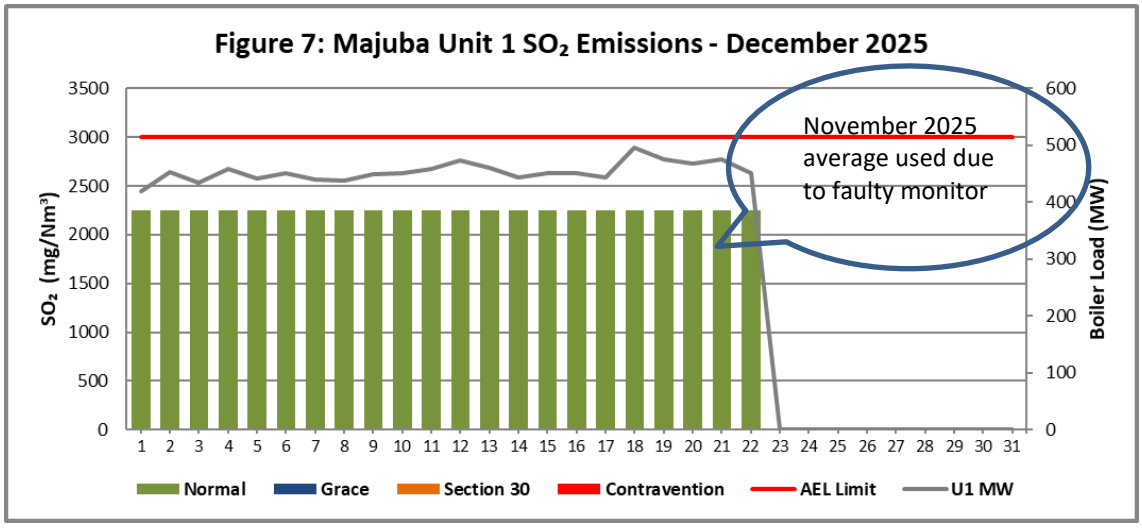


Figure 7. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 1.

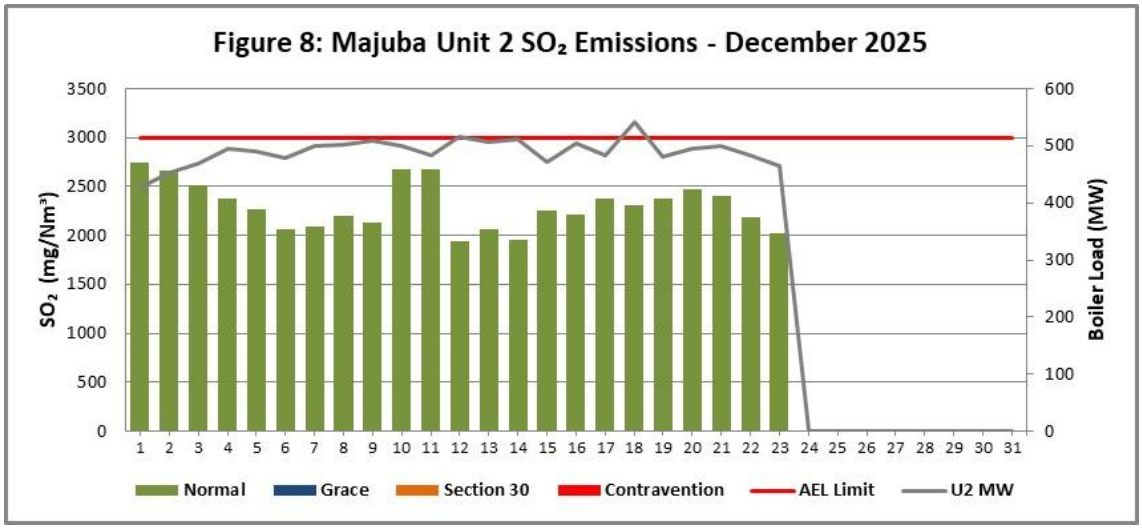


Figure 8. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 2.

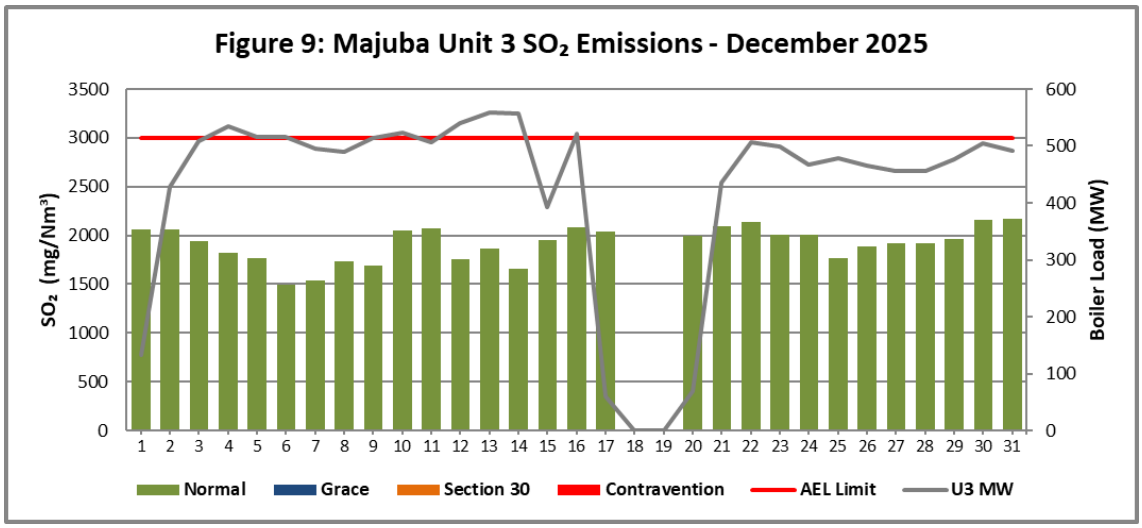


Figure 9. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 3.

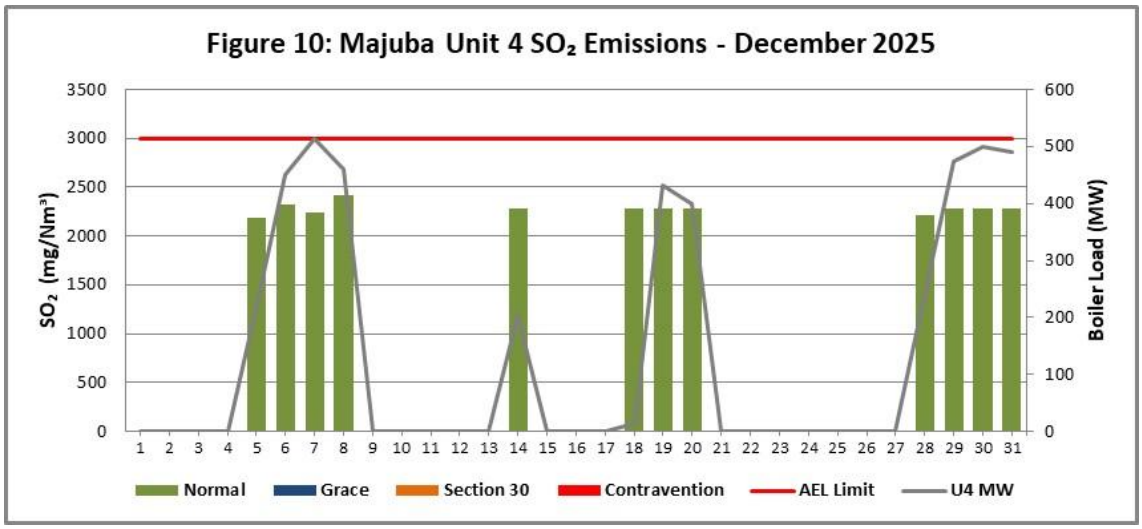


Figure 10. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 4.

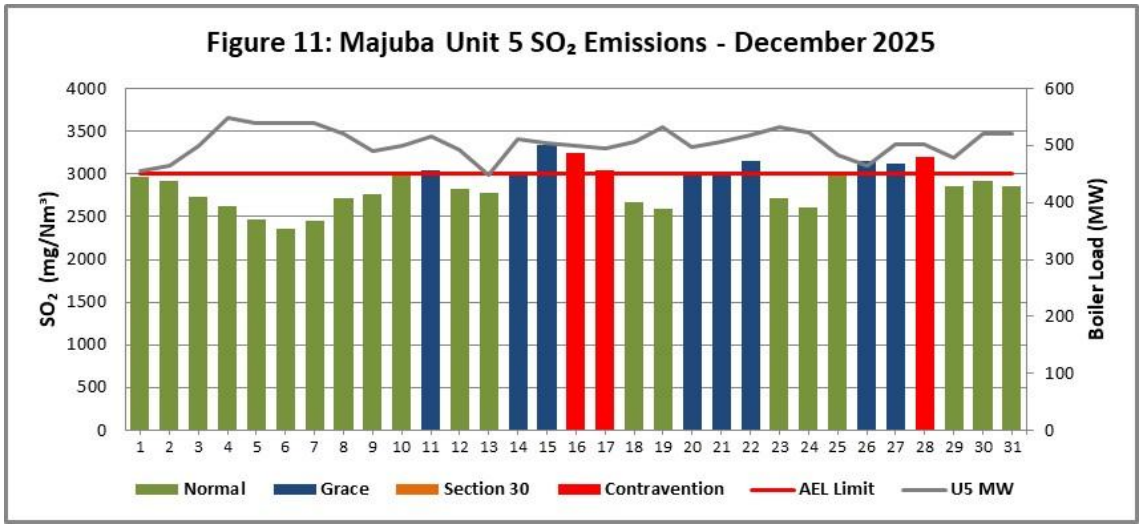


Figure 11. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 5.

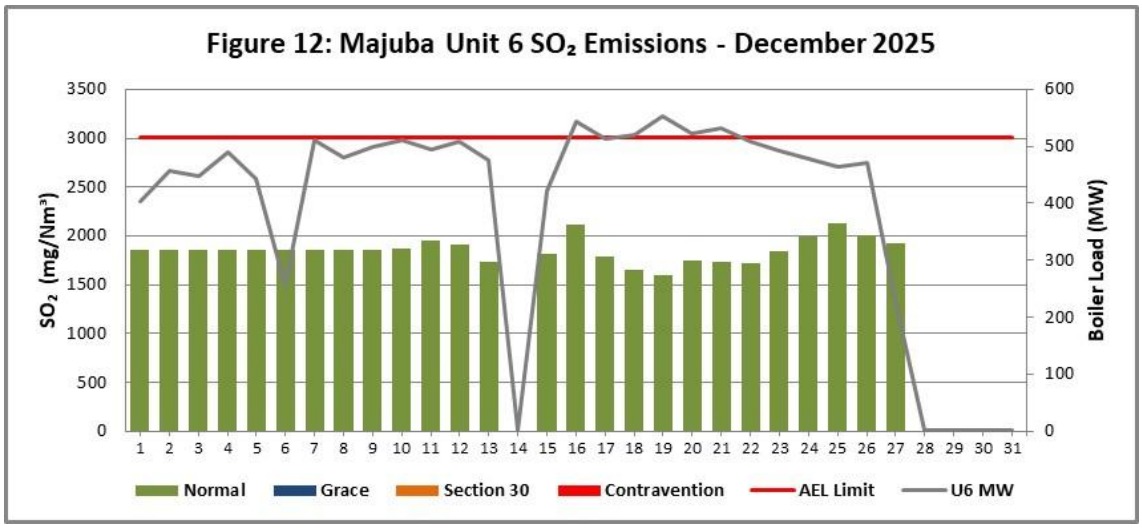


Figure 12. SO_2 emissions (daily averages) for the month of December 2025 against emission limit for Unit 6.

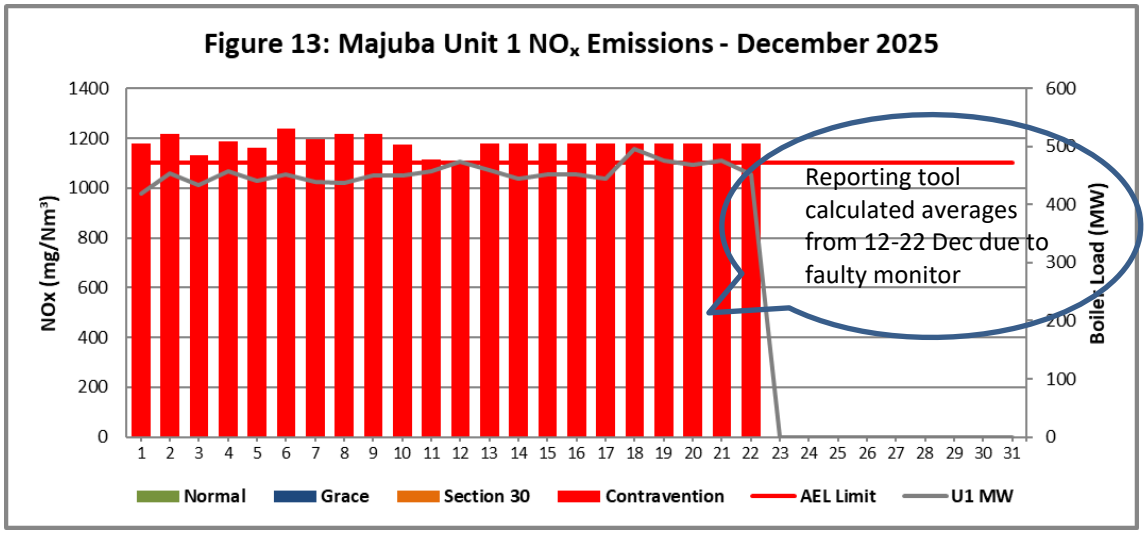


Figure 13. NOx emissions (daily averages) for the month of December 2025 against emission limit for Unit 1.

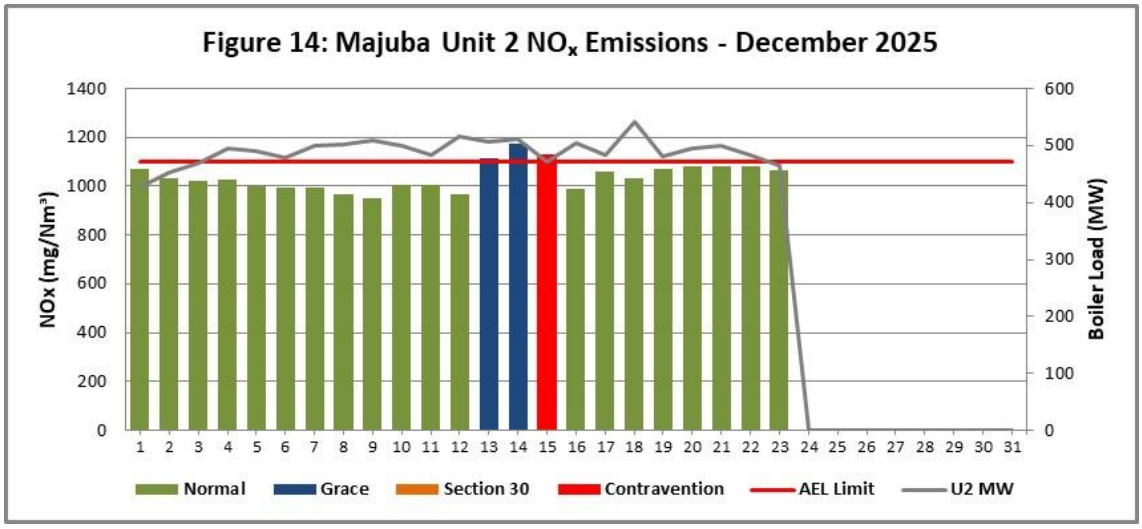


Figure 14. NOx emissions (daily averages) for the month of December 2025 against emission limit for Unit 2.

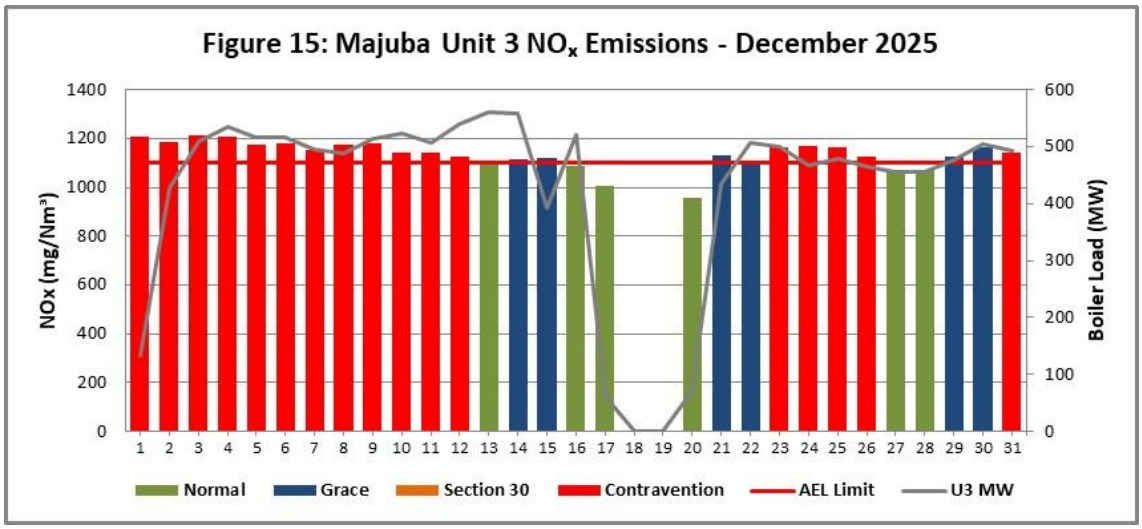


Figure 15. NOx emissions (daily averages) for the month of December 2025 against emission limit for Unit 3.

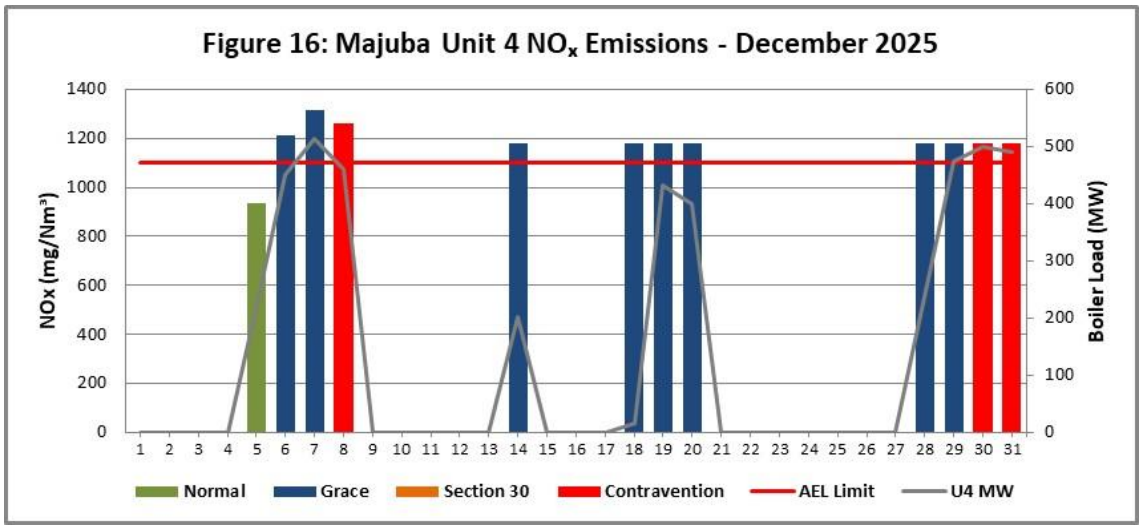


Figure 16. NOx emissions (daily averages) for the month of December 2025 against emission limit for Unit 4

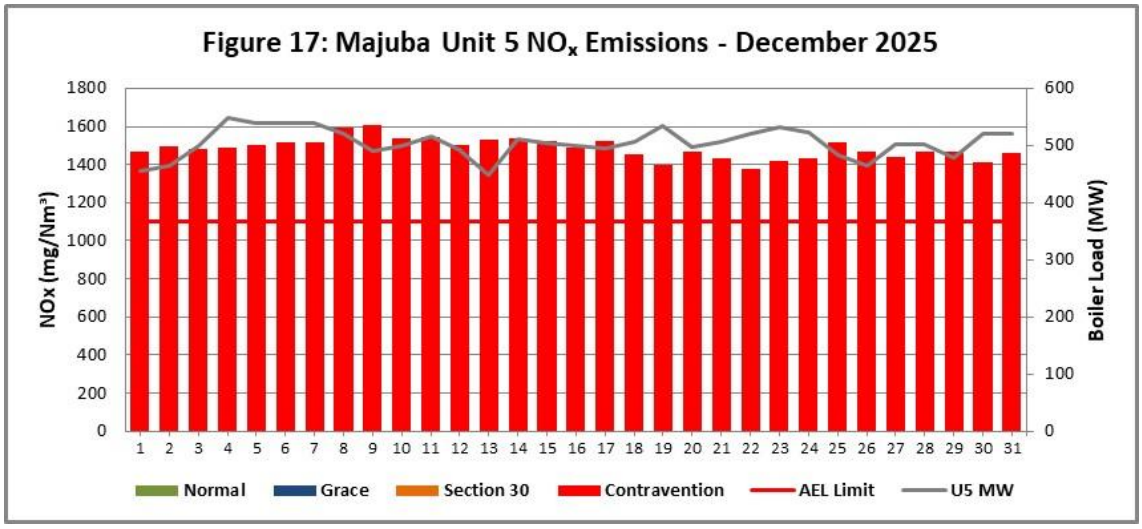


Figure 17. NOx emissions (daily averages) for the month of December 2025 against emission limit for Unit 5

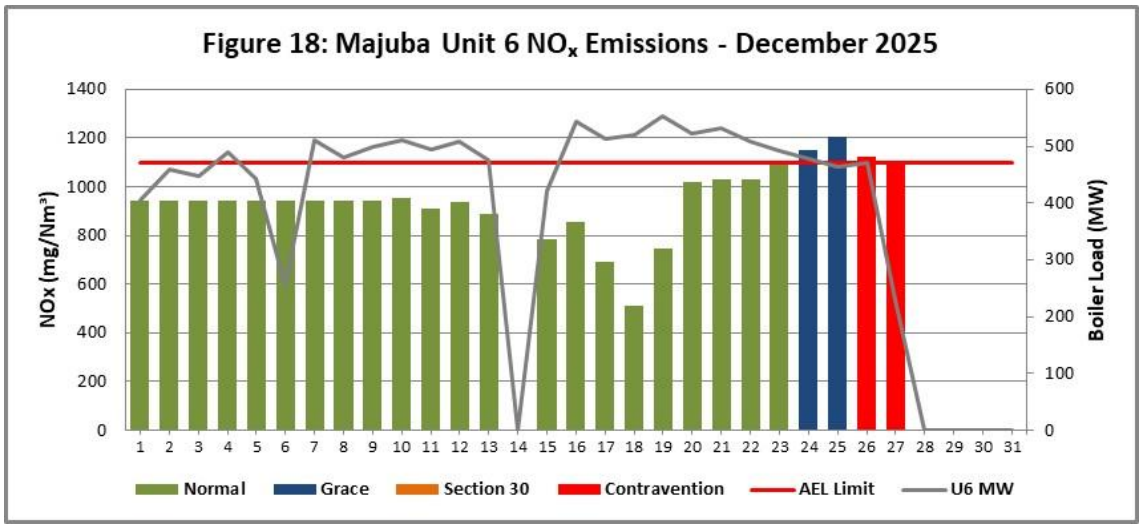


Figure 18. NOx emissions (daily averages) for the month December 2025 against emission limit for Unit 6

Table 4: Monthly tonnages for the month of December 2025

Unit	PM (tons)	SO_2 (tons)	NOx (tons)
Unit 1	17.8	3 894	2 044
Unit 2	57.5	3 250	1 471
Unit 3	41.5	4 087	2 457
Unit 4	3.2	1 317	688
Unit 5	31.3	4 709	2 439
Unit 6	19.1	3 220	1 633

Table 5: Average monthly concentrations (mg/Nm^3) for the month of December 2025

Unit	PM (Mg/Nm^3)	SO_2 (Mg/Nm^3)	NOx (Mg/Nm^3)
1	10.9	2 245.0	1 178.1
2	40.4	2 303.6	1 040.3
3	19.9	1 916.9	1 134.4
4	7.9	2 279.0	1 181.1
5	18.8	2 876.2	1 486.2
6	12.2	1 853.1	943.1

Table 6: Each unit and respective days operating in compliance to the AEL PM Emission Limits

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance
Unit 1	22	0	0	0	0
Unit 2	15	4	0	4	8
Unit 3	27	0	0	0	0
Unit 4	8	0	0	0	0
Unit 5	31	0	0	0	0
Unit 6	25	0	0	0	0

Table 7: Each unit and respective days operating in compliance to the AEL SO_2 Emission Limits

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance
Unit 1	22	0	0	0	0
Unit 2	23	0	0	0	0
Unit 3	29	0	0	0	0
Unit 4	12	0	0	0	0
Unit 5	20	8	0	3	11
Unit 6	26	0	0	0	0

Table 8: Each unit and respective days operating in compliance to the AEL NOx Emission Limits

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance
Unit 1	0	0	0	22	22
Unit 2	20	2	0	1	3
Unit 3	6	6	0	17	23
Unit 4	1	8	0	3	11
Unit 5	0	0	0	31	31
Unit 6	22	2	0	2	4

Table 9: Data Reliability (%)

Associated Unit/Stack	PM	SO_2	NO	O_2
Unit 1	100.0	100.0	99.8	100.0
Unit 2	99.8	100.0	100.0	100.0
Unit 3	98.0	100.0	100.0	100.0
Unit 4	100.0	32.7	32.7	55.8
Unit 5	100.0	100.0	100.0	100.0
Unit 6	100.0	59.9	59.9	99.9

Table 10: CO_2 and O_2 deviations of the Month of December 2025

	Final O_2 CEMS Data (%)						CO_2 (Actual Dry %)						SUM CO_2 + O_2 CEMS Data (%)					
2026/01/12	U1	U2	U3	U4	U5	U6	U1	U2	U3	U4	U5	U6	U1	U2	U3	U4	U5	U6
2025/12/01	9.8	12.9	9.2		11.1	12.7	9.8	8.5	10.5		8.8	7.9	19.6	21.4	19.7		19.9	20.6
2025/12/02	9.8	12.9	8.9		11.3	12.3	9.8	8.5	10.5		8.6	8.4	19.7	21.4	19.4		19.9	20.6
2025/12/03	9.8	12.6	8.6		10.6	12.2	9.8	8.7	10.5		9.2	8.4	19.7	21.2	19.1		19.8	20.6
2025/12/04	9.8	12.0	8.1		9.5	11.5	9.8	8.9	10.5		10.2	9.1	19.7	21.0	18.6		19.7	20.6
2025/12/05	9.8	11.9	8.3	13.4	9.7	11.8	9.8	9.0	10.5	7.8	10.1	8.8	19.6	20.9	18.8	21.2	19.7	20.6
2025/12/06	9.8	11.8	8.0	13.2	9.8	12.2	9.8	9.1	10.5	8.5	9.9	8.4	19.7	20.9	18.5	21.7	19.8	20.6
2025/12/07	9.8	11.7	7.9	12.5	10.0	11.2	9.8	9.2	10.5	9.5	9.8	9.4	19.7	20.9	18.4	22.0	19.8	20.6
2025/12/08	9.8	11.7	8.4	12.5	10.7	11.8	9.8	9.2	10.5	9.3	9.2	8.8	19.7	20.9	18.9	21.8	19.8	20.6
2025/12/09	9.8	11.4	8.5		11.4	11.5	9.8	9.4	10.5		8.5	9.1	19.7	20.8	18.9		19.9	20.6
2025/12/10	9.8	11.9	8.1		11.3	11.5	9.8	9.0	10.5		8.9	9.1	19.7	20.9	18.6		20.2	20.6
2025/12/11	9.8	12.3	8.3		10.9	11.8	9.8	8.8	10.5		9.8	9.3	19.7	21.1	18.8		20.6	21.1
2025/12/12	9.9	11.3	8.0		11.0	11.3	9.8	8.6	10.5		9.1	9.4	19.7	19.9	18.5		20.1	20.8
2025/12/13	9.9	11.5	7.5		11.8	11.5	9.9	8.5	10.5		9.1	9.4	19.7	20.0	18.0		20.9	20.9
2025/12/14	9.8	11.7	7.4	12.5	11.0		9.8	8.3	10.5	8.1	8.9		19.7	20.0	17.9	20.7	19.9	
2025/12/15	9.8	12.1	9.9		11.0	11.5	9.8	8.1	10.6		9.0	9.1	19.7	20.1	20.5		20.0	20.6
2025/12/16	9.9	11.4	8.2		11.2	10.6	9.8	8.5	10.5		9.1	9.5	19.7	19.9	18.7		20.2	20.1
2025/12/17	9.8	12.3	10.0		11.4	11.1	9.8	8.1	10.6		9.1	9.5	19.7	20.4	20.6		20.5	20.6
2025/12/18	9.9	11.4		12.5	10.6	10.9	9.8	8.6		8.1	8.9	9.4	19.7	20.1		20.6	19.5	20.3
2025/12/19	9.8	12.6		13.0	9.9	10.0	9.8	8.0		8.4	8.9	9.4	19.7	20.7		21.4	18.8	19.4
2025/12/20	9.8	12.2	12.3	12.0	11.0	10.6	9.8	8.1	10.6	9.0	9.0	9.4	19.7	20.4	22.8	21.0	20.0	20.1
2025/12/21	9.9	12.0	10.2		10.7	10.7	9.8	8.4	10.7		9.0	9.4	19.7	20.4	20.8		19.7	20.1
2025/12/22	9.8	12.0	8.0		10.2	10.6	9.8	8.2	10.5		8.9	9.4	19.7	20.3	18.5		19.1	20.0
2025/12/23		12.0	8.5		10.0	11.3		8.2	10.5		9.0	9.4		20.2	19.0		19.0	20.7
2025/12/24			8.9		10.0	11.8			10.5		9.0	9.3			19.4		19.0	21.1
2025/12/25			8.4		11.3	12.2			10.5		8.9	9.3			18.9		20.2	21.5
2025/12/26			8.7		11.6	11.7			10.5		9.0	9.4			19.1		20.6	21.0
2025/12/27			8.9		10.5	11.3			10.5		9.0	9.4			19.3		19.5	20.7
2025/12/28			8.9	12.4	10.5				10.5	8.4	8.9				19.3	20.9	19.5	
2025/12/29			8.7	12.2	11.5				10.5	8.8	8.8				19.2	21.1	20.3	
2025/12/30			8.4	11.9	10.4				10.5	9.1	8.9				18.9	20.9	19.3	
2025/12/31			8.4	12.0	10.5				10.5	8.9	9.0				18.8	20.9	19.6	

Calculation: CO_2% + O_2% = 19.5-21.5%
*Blank spaces indicate that the unit was offline during that period

Emergency Generation

Table 11: Emergency Generation for the month of December 2025

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Emergency Generation hours declared by national Control	0	0	0	0	0	0
Emergency Hours declared including hours after stand down	0	0	0	0	0	0
Hours over the Limit during Emergency Generation	0	0	0	0	0	0

Comments on the performance and availability of each unit

UNIT 1

The unit base loaded for most of the days during the month and off for one day. Fifty-nine fabric filter bags were replaced during the month.

UNIT 2

The unit base loaded for most of the days during the month and off for eight days. Fifty filter bags were replaced during the month.

UNIT 3

The unit base loaded for most of the days during the month and off for two days. One hundred and eight filter bags were replaced during the month.

UNIT 4

The unit base loaded for most of the days during the month and off for nineteen days. No fabric filter bags were replaced during the month.

UNIT 5

The unit base loaded for all of the days of the month. One fabric filter bag was replaced during the month.

UNIT 6

The unit base loaded for most of the days during the month and off for four days. Sixteen fabric filter bags were replaced during the month.

Complaints Register

Table 12: Complaints for the month of December 2025

Source Code/ Name	Root Cause Analysis	Calculation of Impacts/ emissions associated with the incident	Dispersion modelling of pollutants where applicable	Measures implemented to prevent reoccurrence	Date by which measure will be implemented
	No complaints were received in December 2025.				

Area and or line source – management and mitigation measures
There were no incidents or leaks at the fuel oil tanks, loading and offloading area for the month of December 2025.

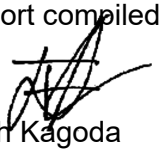
General
The exceedances on PM, SO_2 and NO_x are highlighted in Table 6, 7 and 8 respectively. The NOx exceedances are linked to the previously reported and investigated exceedances. The Station is tracking the actions from the investigation conducted as per the investigation report submitted to the licensing authority. In addition, there were SO_2 exceedances at Unit 5 for the month of December 2025. These are being investigated, and the final report will be shared with the authorities. Furthermore, upon implementation of the new curve from the latest correlation tests at unit 2, the report showed exceedances in PM. The Station will re-do the correlation test to verify the validity of the new curve. An update will be provided on the next emissions report.

The Station exceeded the fuel oil limit of 6000 tons for the month of December 2025. This was due to the units being placed on cold reserve. In addition, unit 4 & 6 had boiler tube leaks and had to be forced shutdown several times.

Furthermore, several monitors have not achieved the minimum monitor reliability of 80%. The Station is working together with the Original Equipment Manufacturer to service, repair and replace the faulty monitors. A letter with an action plan was submitted to the licensing authority, detailing the measures taken and/or planned by the Station to address the faulty monitors.

Yours sincerely

Report compiled by:



Faith Kagoda Date: 19/01/2026
ENVIRONMENTAL MANAGER: (MAJUBA)

Report verified by:

Lindani Madonsela Date: 19/01/2026
BOILER ENGINEERING MANAGER: (MAJUBA)

Report approved by:

Johan Swanepoel Date: 19/01/2026
ENGINEERING MANAGER: (MAJUBA)