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Date:
 10 October 2025

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MAJUBA POWER STATION'S MONTHLY EMISSIONS REPORT FOR THE MONTH OF SEPTEMBER 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 September 2025. Verified emissions of Particulate Matter, SO₂ and NO_x (as NO₂) are included for all units. Greenhouse gases are excluded as per the agreement reached between Eskom and the Department of Forestry, Fisheries and the Environment 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 September 2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption/ Rate in Month of September 2025
	Coal	Tons/month	1 800 000	711 041
	Fuel Oil	Tons/month	6 000	5282.8
Production Rates	Product/ By-Product Name	Unit	Maximum Production Rate Permitted (Quantity)	Production Rate in Month of September 2025
	Energy	GWh	3 058	1 058
	Ash	Tons/month	429 746	194 683

Abatement Technology

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

Associated Unit	Technology Type	Actual Utilisation (%) for the month of September 2025	*Minimum Control Efficiency (%)
Unit 1	Fabric Filter Plant	100	99.95
Unit 2	Fabric Filter Plant	100	99.94
Unit 3	Fabric Filter Plant	0	0
Unit 4	Fabric Filter Plant	100	99.99
Unit 5	Fabric Filter Plant	100	99.97
Unit 6	Fabric Filter Plant	100	99.93

*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 September 2025

Characteristic	Stipulated Limit (Unit)	Monthly Average Content
Sulphur Content	<1.25%	0.61
Ash Content	<33.84%	27.38

Emissions Reporting

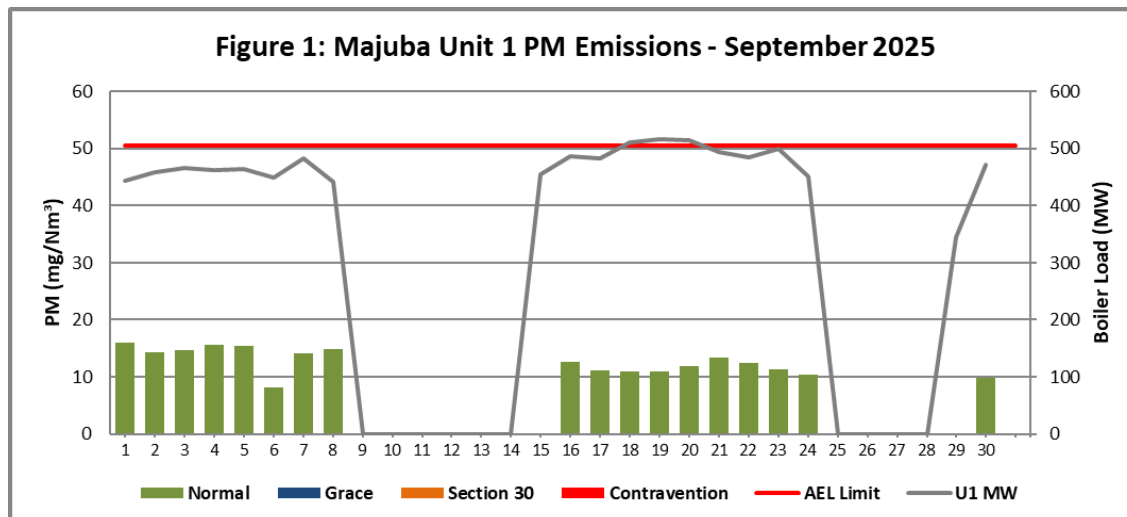


Figure 1. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 1.

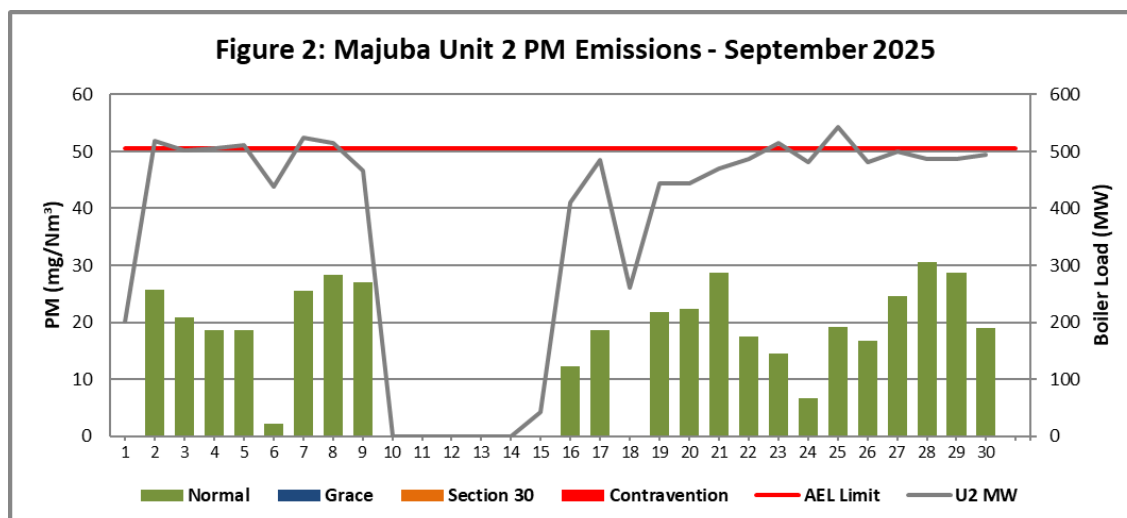


Figure 2. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 2.

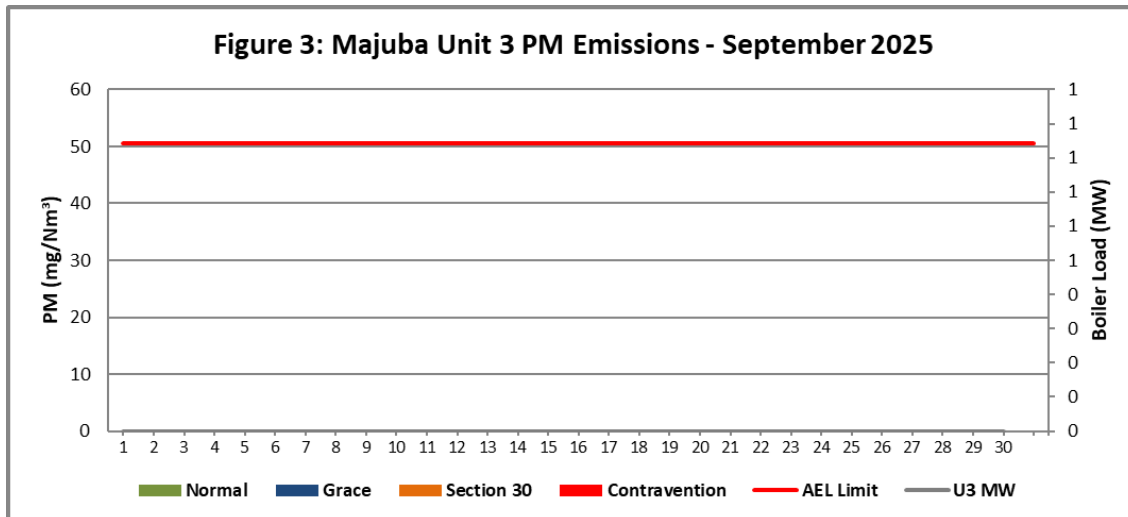


Figure 3. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 3.

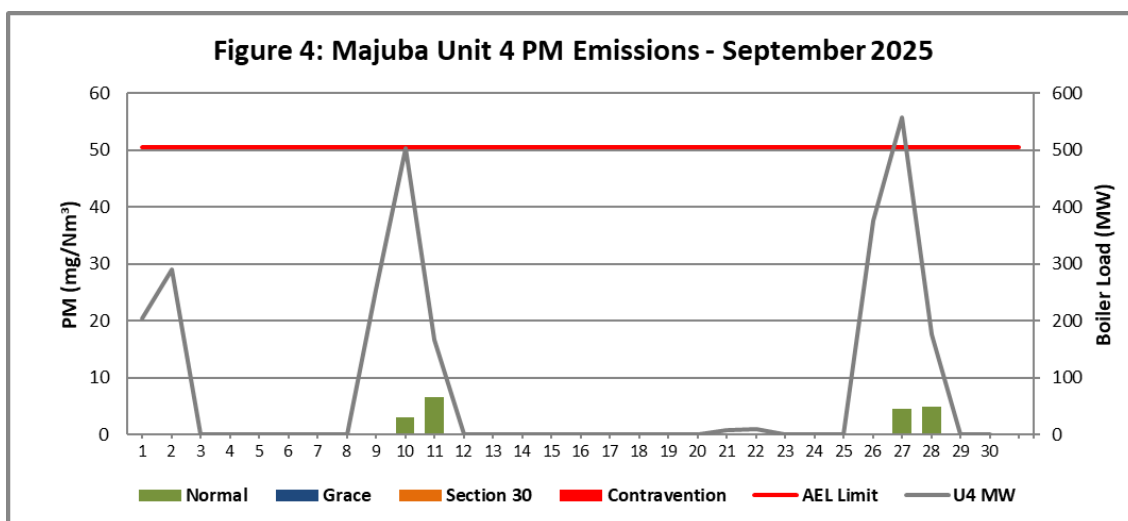


Figure 4. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 4.

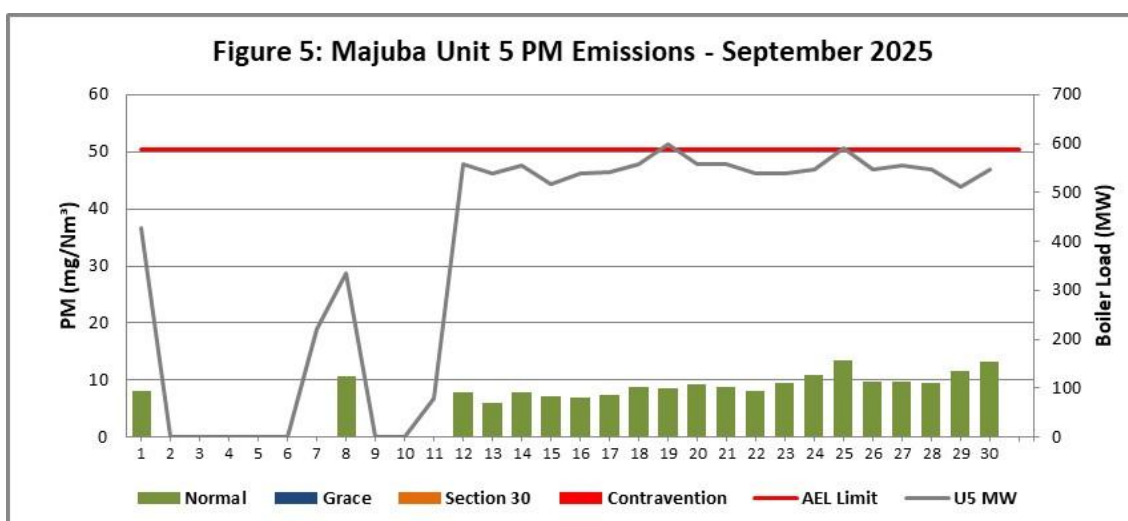


Figure 5. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 5.

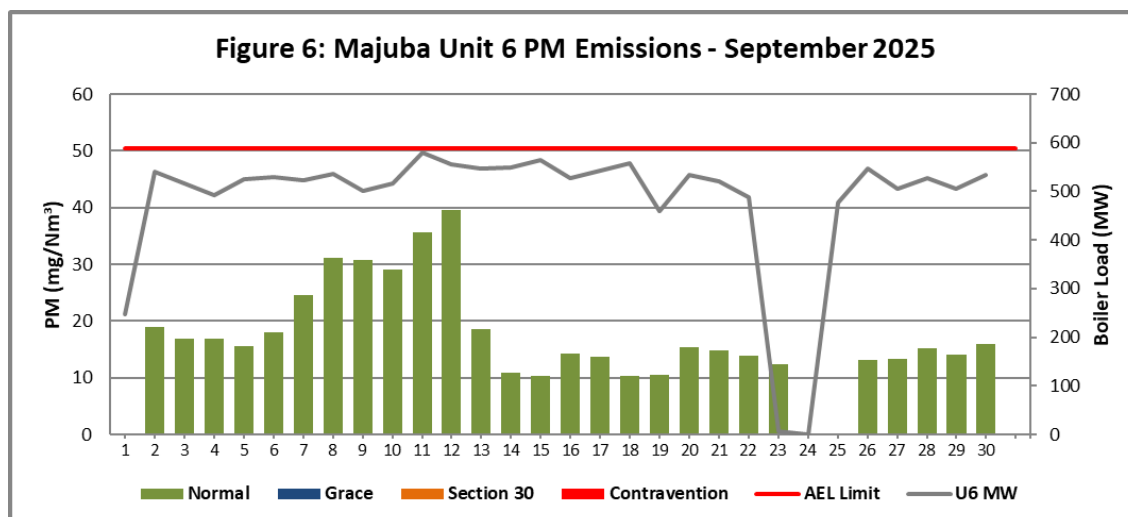


Figure 6. Particulate Matter emissions (daily averages) for the month of September 2025 against emission limit for Unit 6.

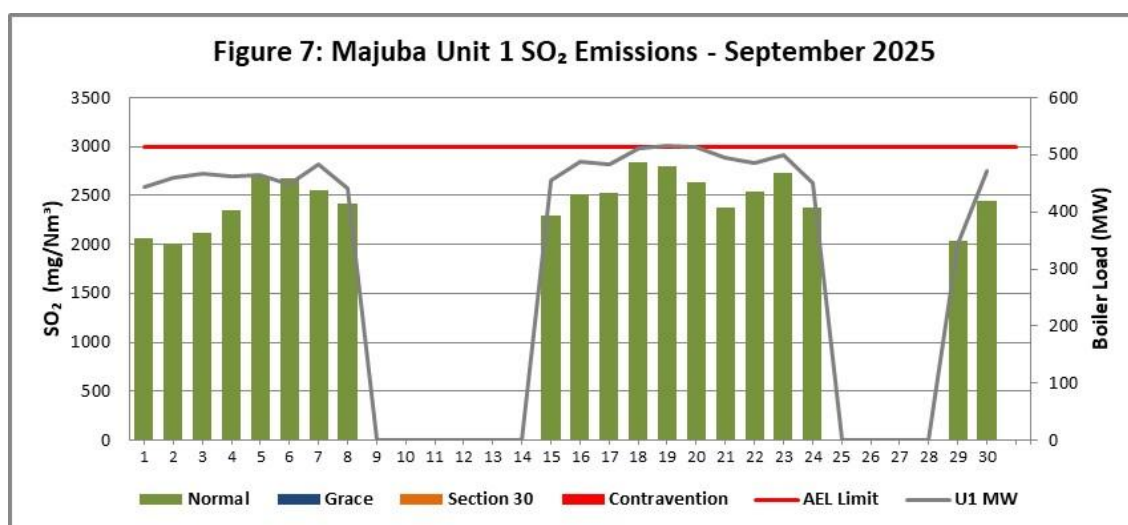


Figure 7. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 1.

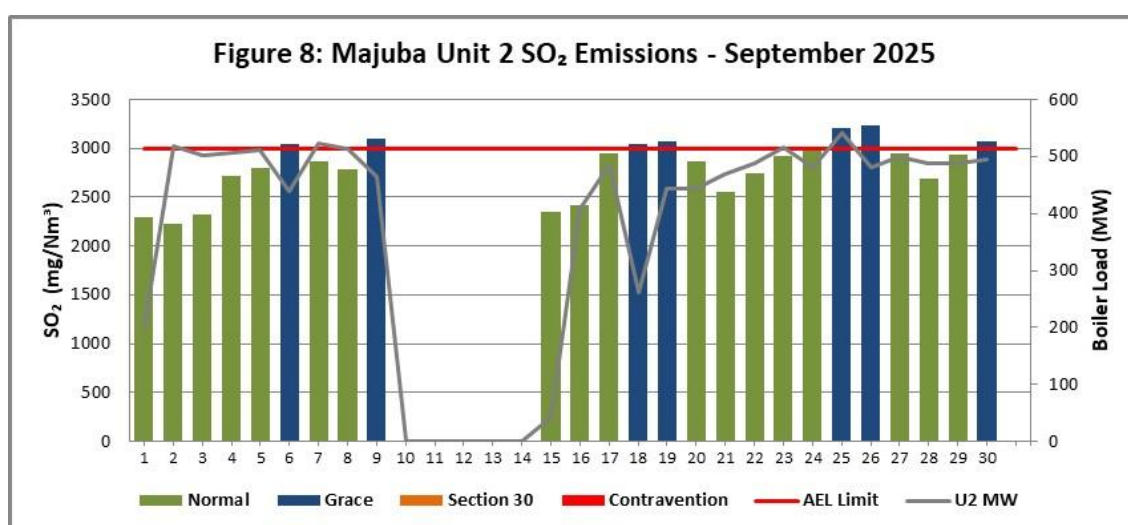


Figure 8. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 2.

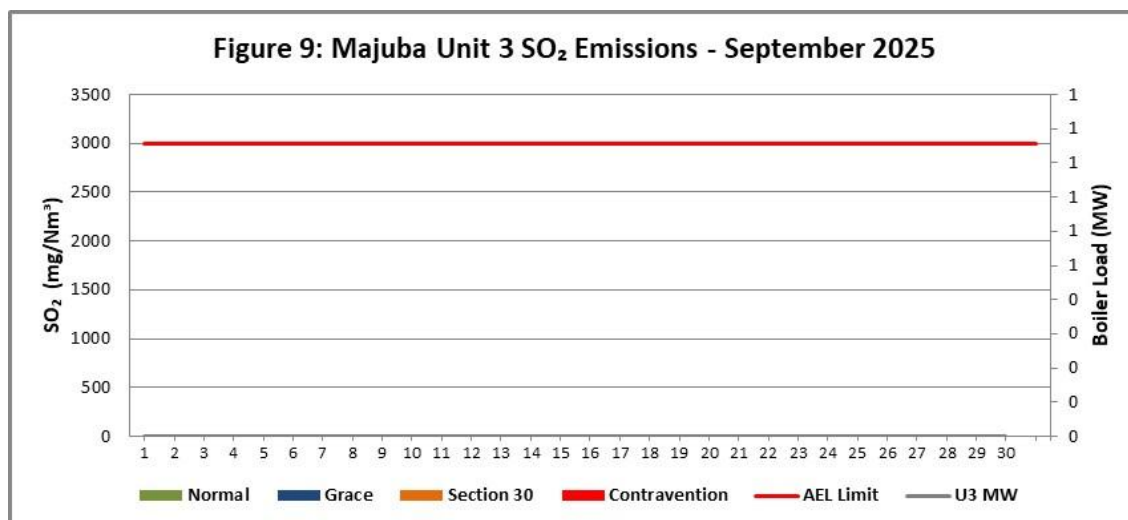


Figure 9. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 3.

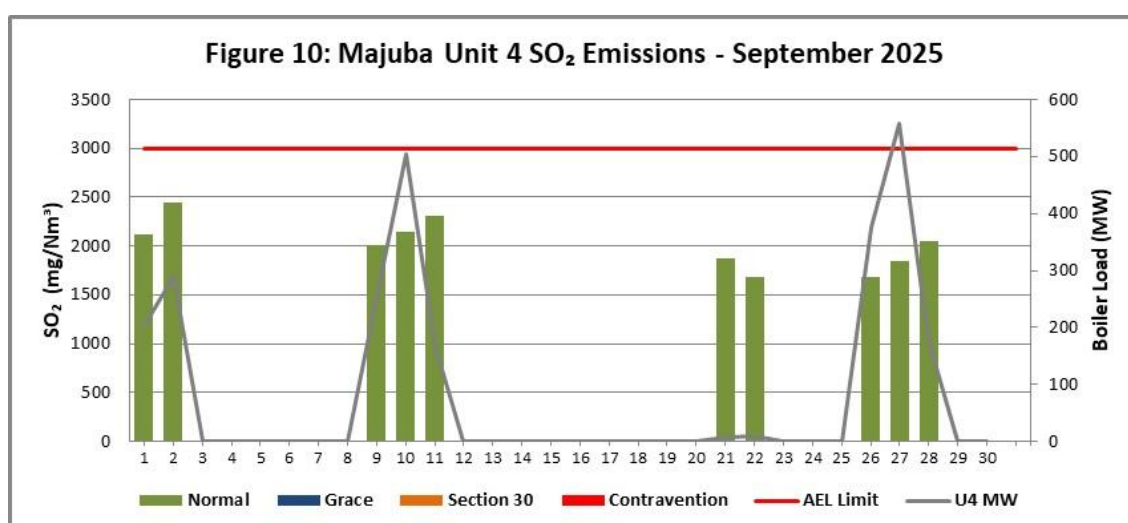


Figure 10. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 4.

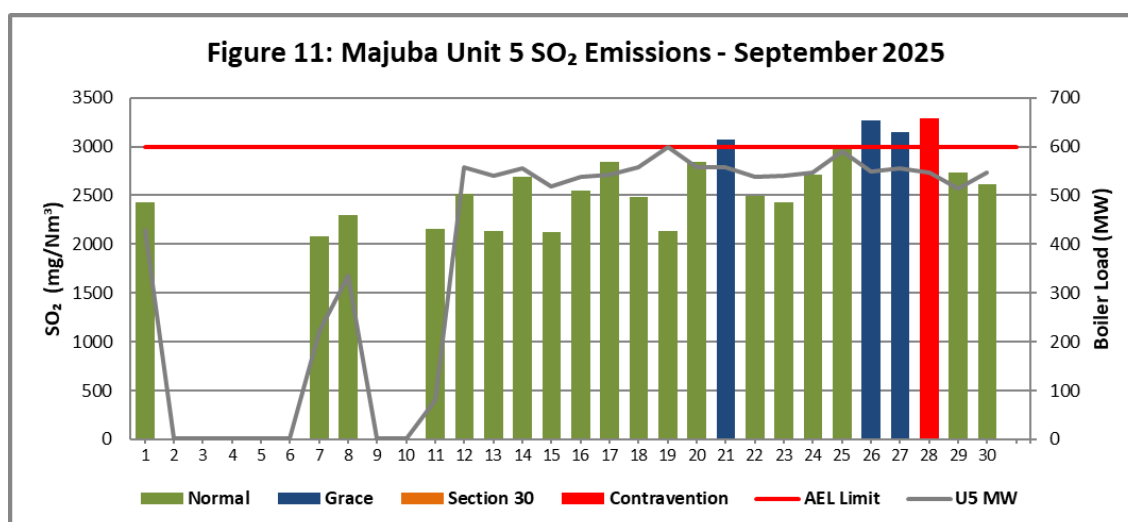


Figure 11. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 5.

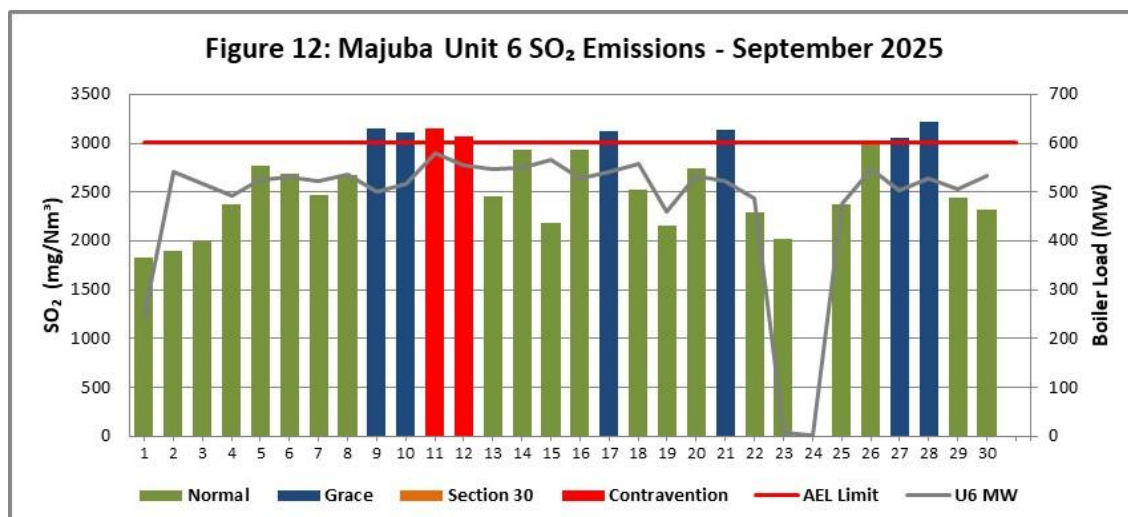


Figure 12. SO₂ emissions (daily averages) for the month of September 2025 against emission limit for Unit 6.

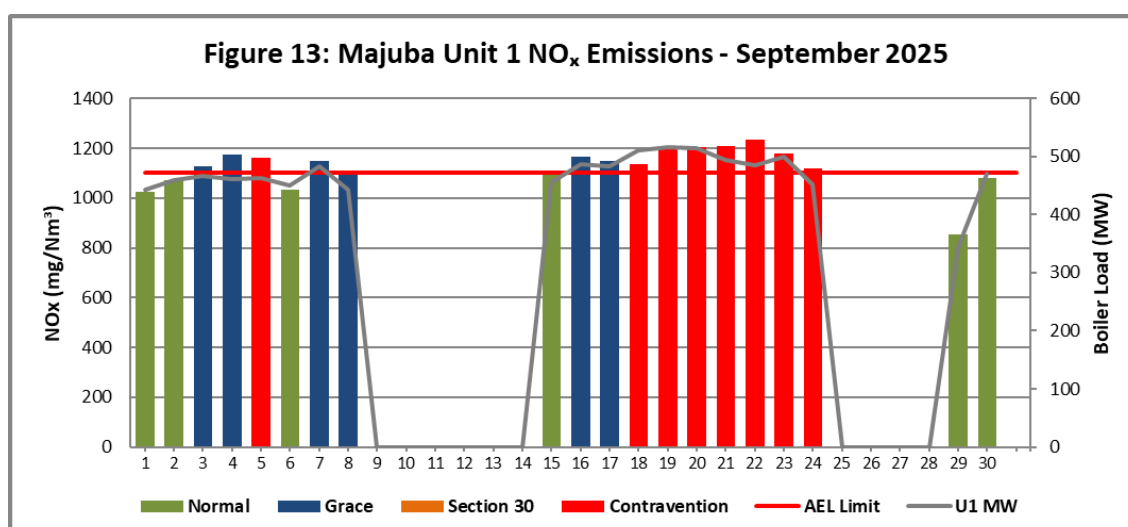


Figure 13. NO_x emissions (daily averages) for the month of September 2025 against emission limit for Unit 1.

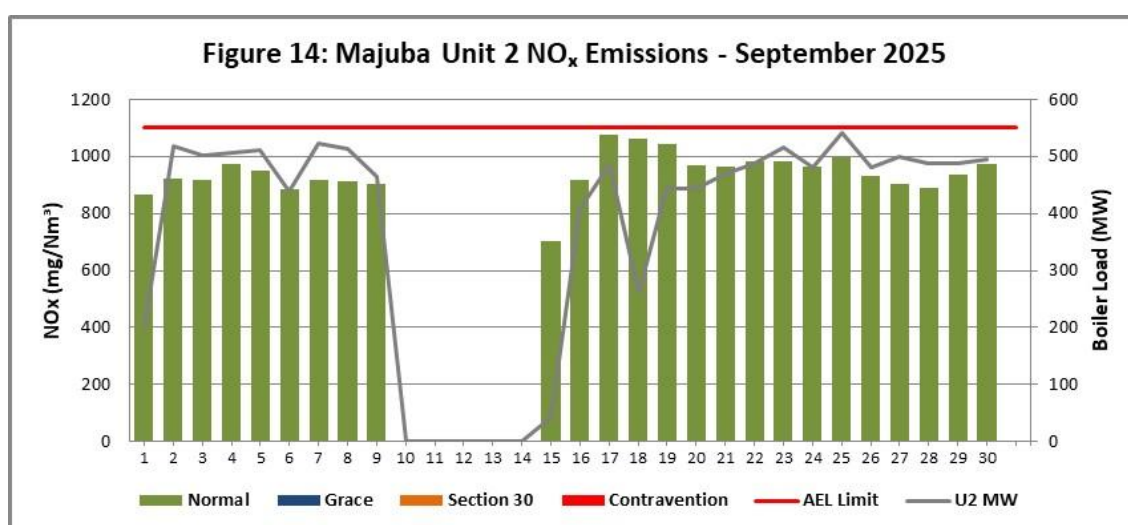


Figure 14. NO_x emissions (daily averages) for the month of September 2025 against emission limit for Unit 2.

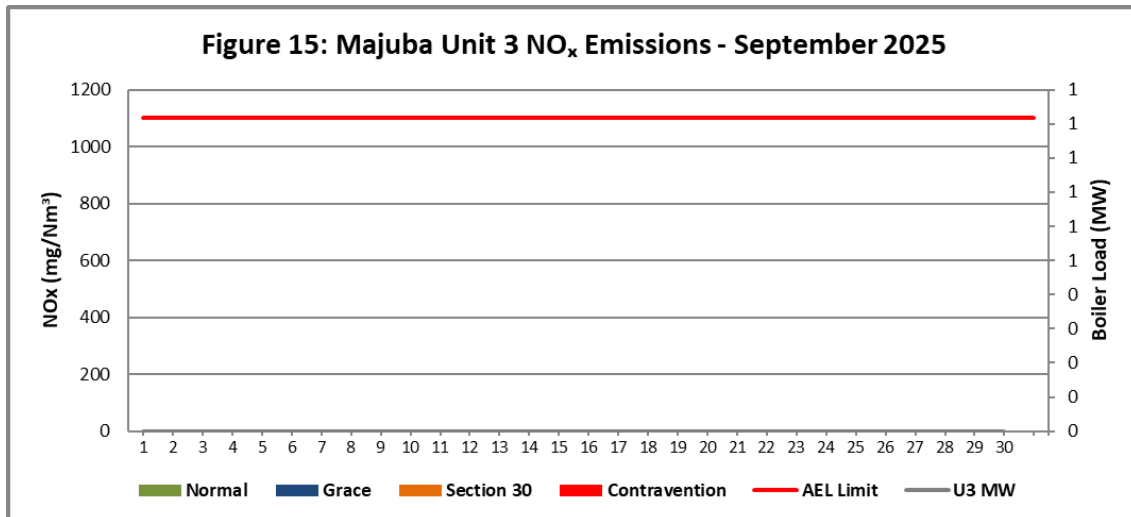


Figure 15. NO_x emissions (daily averages) for the month of September 2025 against emission limit for Unit 3.

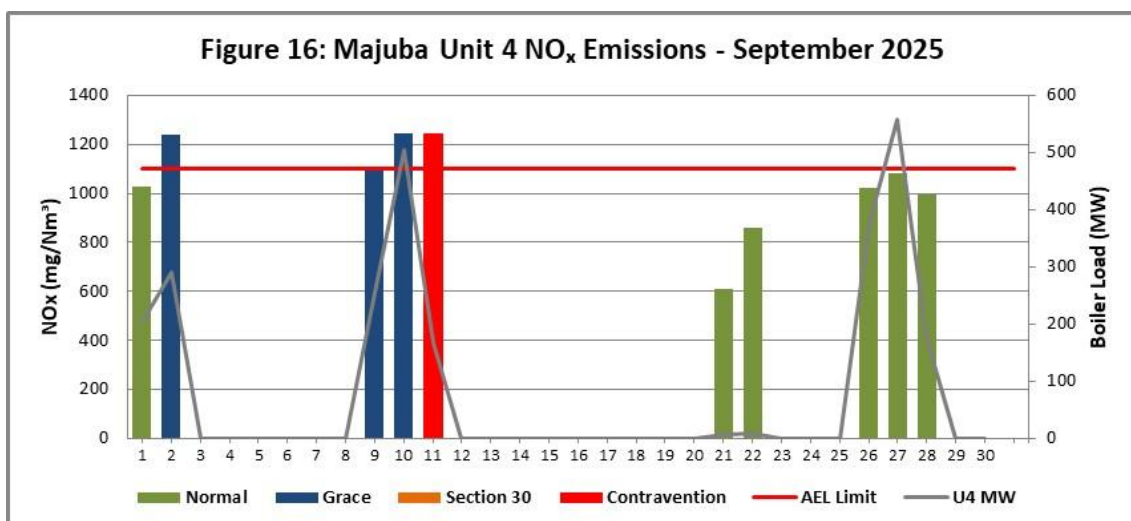


Figure 16. NO_x emissions (daily averages) for the month of September 2025 against emission limit for Unit 4

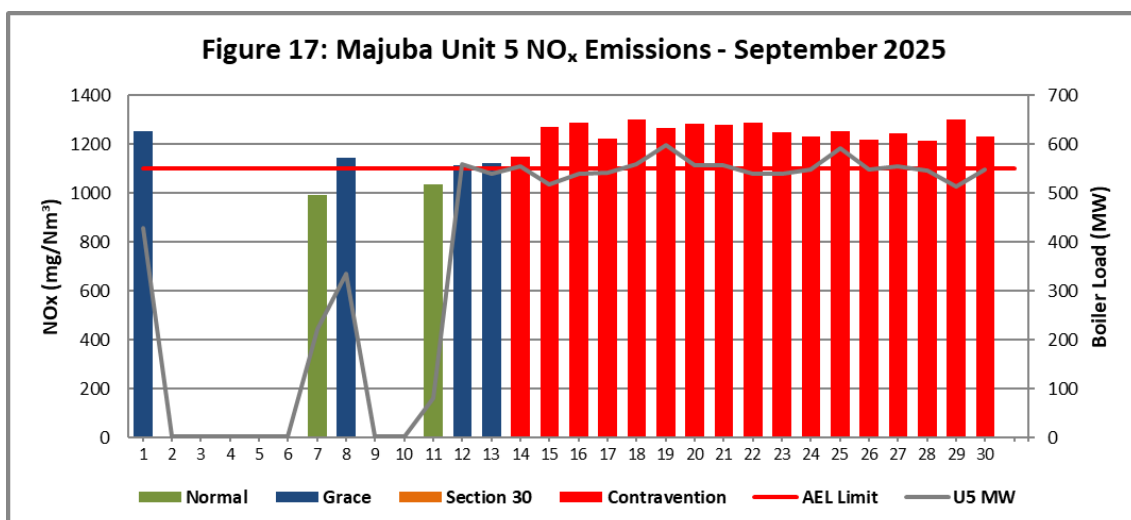


Figure 17. NO_x emissions (daily averages) for the month of September 2025 against emission limit for Unit 5

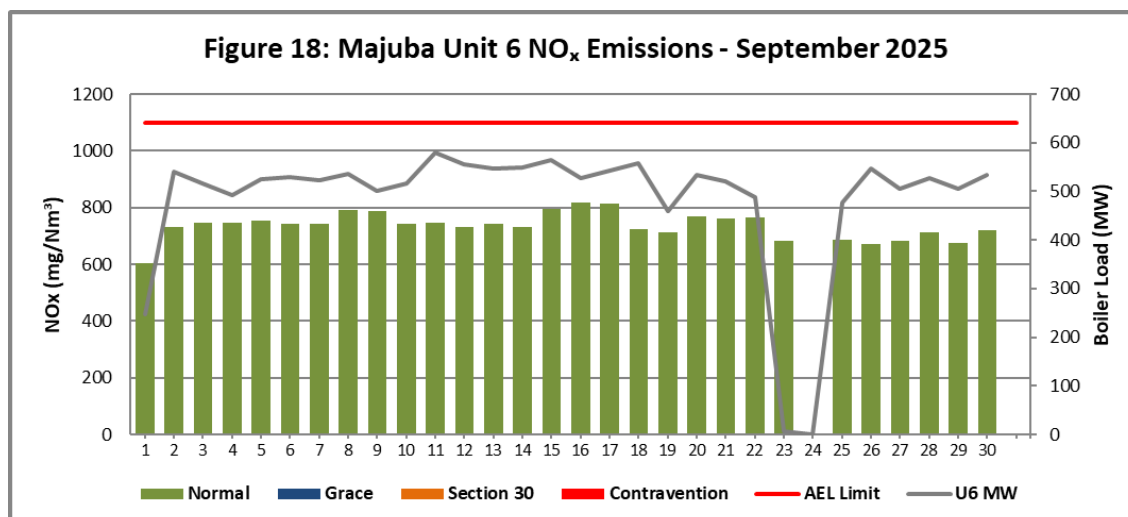


Figure 18. NO_x emissions (daily averages) for the month September 2025 against emission limit for Unit 6

Table 4: Monthly tonnages for the month of September 2025

Unit	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	16.8	3 672	1 683
Unit 2	29.5	4 668	1 574
Unit 3	Off	Off	Off
Unit 4	0.7	733	409
Unit 5	11.3	3 611	1 673
Unit 6	38.2	6 078	1 701

Table 5: Average monthly concentrations (mg/Nm³) for the month of September 2025

Unit	PM (Mg/Nm ³)	SO ₂ (Mg/Nm ³)	NO _x (Mg/Nm ³)
1	12.7	2 450.7	1 123.5
2	20.4	2 806.4	941.6
3	Off	Off	Off
4	4.7	2 017.2	1 042.4
5	9.2	2 609.1	1 214.8
6	18.3	2 622.0	735.4

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	18	0	0	0	0
Unit 2	22	0	0	0	0
Unit 3	Off	Off	Off	Off	Off
Unit 4	4	0	0	0	0
Unit 5	21	0	0	0	0
Unit 6	27	0	0	0	0

Table 7: Each unit and respective days operating in compliance to the AEL SO₂ Emission Limits

Associate d Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance
Unit 1	20	0	0	0	0
Unit 2	18	7	0	0	7
Unit 3	Off	Off	Off	Off	Off
Unit 4	10	0	0	0	0
Unit 5	19	3	0	1	4
Unit 6	21	6	0	2	8

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance
Unit 1	6	6	0	8	14
Unit 2	25	0	0	0	0
Unit 3	Off	Off	Off	Off	Off
Unit 4	6	3	0	1	4
Unit 5	2	4	0	17	21
Unit 6	29	0	0	0	0

Table 9: Data Reliability (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	100.0	99.6	99.6	100.0
Unit 2	100.0	99.6	100.0	97.0
Unit 3	Off	Off	Off	Off
Unit 4	100.0	94.5	97.4	97.8
Unit 5	100.0	99.6	100.0	99.2
Unit 6	96.6	100.0	100.0	96.4

Table 10: CO₂ and O₂ deviations of the Month of September 2025

2025/10/08	Final O ₂ CEMS Data (%)						CO ₂ (Actual Dry %)						SUM CO ₂ + O ₂ CEMS Data (%)					
	U1	U2	U3	U4	U5	U6	U1	U2	U3	U4	U5	U6	U1	U2	U3	U4	U5	U6
2025/09/01	10.0	11.5		11.9	9.2	9.1	9.7	8.5		8.5	11.3	11.1	19.6	20.0		20.5	20.6	20.2
2025/09/02	10.0	10.7		11.7		9.0	9.7	9.5		9.5		11.4	19.6	20.2		21.3		20.5
2025/09/03	10.0	10.8				9.9	9.7	9.7				11.5	19.6	20.5				21.4
2025/09/04	10.0	11.2				10.1	9.7	9.3				11.3	19.6	20.5				21.5
2025/09/05	10.0	10.8				9.4	9.7	9.6				11.5	19.6	20.4				20.9
2025/09/06	10.0	10.9				9.4	9.6	9.5				11.2	19.6	20.4				20.6
2025/09/07	10.0	11.0			10.9	9.4	9.7	9.6			10.6	11.3	19.6	20.6			21.6	20.8
2025/09/08	10.0	11.3			8.5	9.7	9.7	9.4			11.2	11.4	19.6	20.8			19.6	21.2
2025/09/09		11.2		12.3		10.1		9.5		8.3		11.2		20.8		20.6		21.3
2025/09/10				12.5		9.8				9.0		11.3				21.5		21.1
2025/09/11				13.2	9.8	9.2				8.1	11.1	11.4				21.3	20.9	20.6
2025/09/12					8.3	9.6					11.4	11.3					19.7	20.9
2025/09/13					9.4	9.1					11.4	11.8					20.8	20.9
2025/09/14					8.5	9.1					11.2	11.9					19.6	20.9
2025/09/15	10.0	13.2			9.3	9.4	9.6	6.9			11.2	11.5	19.6	20.1			20.5	20.9
2025/09/16	10.0	11.6			9.2	9.9	9.7	8.6			11.5	11.0	19.6	20.2			20.7	20.9
2025/09/17	10.0	11.4			9.2	9.9	9.7	9.2			11.2	11.0	19.6	20.6			20.4	20.9
2025/09/18	10.0	13.0			9.0	9.2	9.7	7.7			11.2	11.7	19.6	20.7			20.2	20.9
2025/09/19	10.0	12.7			8.7	9.8	9.7	8.1			11.1	11.1	19.6	20.8			19.8	20.9
2025/09/20	10.0	11.8			8.8	9.7	9.7	8.9			11.1	11.2	19.6	20.7			19.9	20.9
2025/09/21	10.0	11.0		13.0	8.7	9.7	9.7	9.6		7.8	11.2	11.3	19.6	20.6		20.8	19.9	20.9
2025/09/22	10.0	11.6		12.5	8.9	10.0	9.7	9.1		7.0	11.2	10.9	19.6	20.7		19.5	20.0	20.9
2025/09/23	10.0	11.2			9.0	8.9	9.7	9.5			11.1	12.1	19.6	20.7			20.1	20.9
2025/09/24	10.0	12.3			8.9		9.7	8.7			11.1		19.6	21.0			20.1	
2025/09/25		11.5			8.8	10.2		9.3			11.3	10.7		20.8			20.1	20.9
2025/09/26		12.2		10.3	9.1	9.1		8.7		9.1	11.0	11.9		20.9		19.4	20.1	20.9
2025/09/27		11.9		9.2	8.9	9.3		9.0		9.9	11.2	11.6		20.8		19.1	20.1	20.9
2025/09/28		11.7		9.8	8.5	9.1		9.1		9.0	11.5	11.8		20.9		18.8	20.0	20.9
2025/09/29	10.0	12.1			9.0	9.5	9.6	9.0			11.1	11.4	19.6	21.0			20.1	20.9
2025/09/30	10.0	12.0			9.0	9.2	9.7	9.0			11.1	11.7	19.6	21.0			20.1	20.9

Calculation: CO₂% + O₂% = 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 September 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 ten days. Twenty-seven 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 five days. Sixteen fabric filter bags were replaced during the month.

UNIT 3

The unit was on outage for the entire month

UNIT 4

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

UNIT 5

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

UNIT 6

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

Complaints Register

Table 12: Complaints for the month of September 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 September 2025.				

Area and or line source – management and mitigation measures

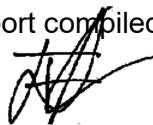
There were no incidents or leaks at the fuel oil tanks, loading and offloading area for the month of September 2025.

General

The exceedances on NO_x are detailed in Table 8. The Station is tracking the actions from the investigation conducted and will provide feedback on the progress to the licensing authority. There were SO₂ exceedances at Unit 5 & 6 for the month of September. These are being investigated, and the final report will be shared with the authorities.

Yours sincerely

Report compiled by:



Faith Kagoda

ENVIRONMENTAL MANAGER: (MAJUBA)

Date 10/10/2025

Report verified by:

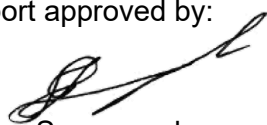


Lindani Madonsela

BOILER ENGINEERING MANAGER: (MAJUBA)

Date 13/10/2025

Report approved by:



Johan Swanepoel

ENGINEERING MANAGER: (MAJUBA)

Date 2025/10/14