

Technical and Generic Report

Matimba Power Station

Title: **Matimba Power Station September**

2025 emissions report

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RP/247/065

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Emission management

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Functional Area Applicability:

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1. Report Summary

Matimba Power Station was issued with an Atmospheric Emission License (H16/1/13-WDM05) in September 2022. The License requires the license holder to submit monthly reports to the Department. This report contains the required information as specified in the license for September 2025. The information recorded in the report is obtained from Matimba Emission Reporting tool MTB0925ERT.



During the period under review, Matimba experienced sixty five (65) exceedances of the daily particulate matter emission limit (50mg/Nm³), fourty three (43) of these exceedances occurred outside of the 48-hour grace period and were recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence and twenty two (22) exceedances occurred within the 48-hour grace period.

There were no exceedances of the monthly SOx limit (3500mg/Nm³). The were no exceedances of the daily NOx emission limit (750mg/Nm³).

Flue gas conditioning plant availability was below 90% for unit 2, unit 3, unit 4 and unit 5. Unit 1 SO3 plant's availability was 93%. Unit 2 SO3 plant's availability was 47%. Unit 3 SO3 plant's availability was 84%. Unit 4 SO3 plant's availability was 58%. Unit 5 SO3 plant's availability was 88% and unit 6 SO3 plant's availability was 98%.

The consumption rates for fuel oil for the month of September 2025 exceeded the limit of 1200 tons by 1581.09 tons due to combustion support across all units.

More information regarding above mentioned issues is provided in the relevant sections within the report.

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2. Emission information

2.1 Raw materials and products

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

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption Rate (Quantity)	Consumption Rate
useu	Coal	Tons/month	1 500 000	825 307
	Fuel Oil	Tons/month	1 200	1581.09
Production Rates	Product/ By- Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate
1.000	Energy	MW	4000	Rate 825 307 1581.09
	Ash	Tons/month	547500	296921.21

The consumption rates for fuel oil for the month of September 2025 exceeded the permitted maximum limits due to combustion support.

2.2 Abatement technology

Table 2: Abatement Equipment Control Technology Utilised

Associated Unit	Technology Type	Minimum utilisation (%)	Efficiency (%)
Unit 1	Electrostatic Precipitator	100%	99.856%
Unit 2	Electrostatic Precipitator	100%	99.625%
Unit 3	Electrostatic Precipitator	100%	99.963%
Unit 4	Electrostatic Precipitator	100%	99.302%
Unit 5	Electrostatic Precipitator	100%	99.122%
Unit 6	Electrostatic Precipitator	100%	99.831%
Associated	Technology Type	Minimum utilisation	Actual Utilisation (%)
Unit		(%)	
Unit 1	SO₃ Plant	100%	93%
Unit 2	SO₃ Plant	100%	47%
Unit 3	SO₃ Plant	100%	84%
Unit 4	SO₃ Plant	100%	58%
Unit 5	SO₃ Plant	100%	88%
Unit 6	SO₃ Plant	100%	98%

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Flue gas conditioning plant availability was below 90% for unit 2, unit 3, unit 4 and 5. Unit 2 SO3 plant was on hold due to BUS communication faulty. Unit 3 SO3 plant was on hold due to LH bias temp low. Unit 4 SO3 plant was on hold due to sulphur control valve faulty. Unit 5 SO3 plant was on permit to work to replace LH Bias.

Table 3: Energy Source Material Characteristics.

	Characteristic	Stipulated Range (Unit)	Monthly Average Content
Coal burned	Sulphur Content	1.6%	1.394%
Coal burned	Ash Content	40%	Content

Energy source characteristics remained within the ranges stipulated in the license.

2.3 Emissions reporting

2.3.1 Particulate Matter Emissions

The emission monitors correlation and parallel tests were performed on unit 2,3 and 4 in June 2024 and the curves were applied on emissions calculations for June 2025. Unit 1,5 and 6 emission calculations were done using the correlation/parallel tests curves from the spot test performed in August 2023. Unit 2 PM correlation curve applied is linear curve, Unit 3 and 4 PM correlation curve applied is polynomial curve.

Unit 1 Particulate Emissions

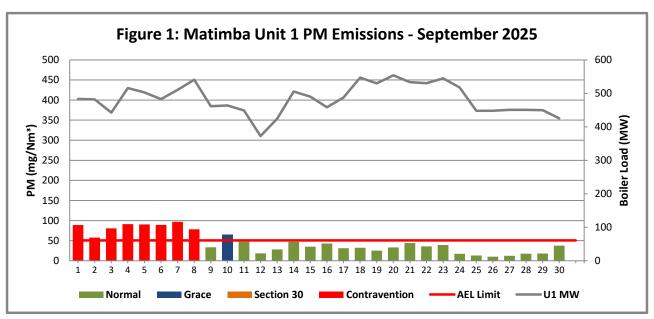


Figure 1: Particulate matter daily average emissions against emission limit for unit 1 for the month of September 2025

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Interpretation: Unit 1 exceeded the daily particulate emission limit of 50mg/Nm3 on 1st to 8th of September 2025, the exceedances occurred outside of the 48-hour grace period and were recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence. The exceedances were due to high hopper levels causing electrostatic precipitators fields to trip and have low efficiency.

Figure 2: Matimba Unit 2 PM Emissions - September 2025 350 600 300 500 250 400 PM (mg/Nm³) 200 300 150 200 100 100 50 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Unit 2 Particulate Emissions

Figure 2: Particulate matter daily average emissions against emission limit for unit 2 for the month of September 2025

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Interpretation: Unit 2 exceeded the daily particulate emission limit of 50mg/Nm3 on 1st to 11th of September 2025. The exceedances occurred outside of the 48-hour grace period and were recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence. The exceedances were due to high hopper levels causing electrostatic precipitators fields to trip and have low efficiency.

Unit 3 Particulate Emissions

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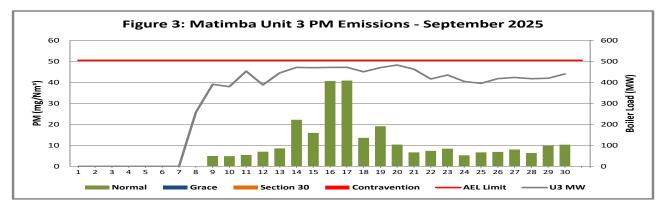


Figure 3: Particulate matter daily average emissions against emission limit for unit 3 for the month of September 2025

Interpretation: Unit 3 daily particulate emission remained within the limit of 50mg/Nm3 for the month of September 2025.

Figure 4: Matimba Unit 4 PM Emissions - September 2025 500 450 450 400 400 350 PM (mg/Nm³ 300 300 250 250 200 200 100 100 50 50 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Section 30 Contravention **AEL Limit**

Unit 4 Particulate Emissions

Figure 4: Particulate matter daily average emissions against emission limit for unit 4 for the month of September 2025

Interpretation: Unit 4 exceeded the daily particulate emission limit of 50mg/Nm3 on 9th to 12th of September 2025 after unit light up and o the 28th to 30th September 2025. All exceedances occurred outside of the 48-hour grace period and were recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence. The exceedances were due to high hopper levels causing electrostatic precipitators fields to trip and have low efficiency.

Unit 5 Particulate Emissions

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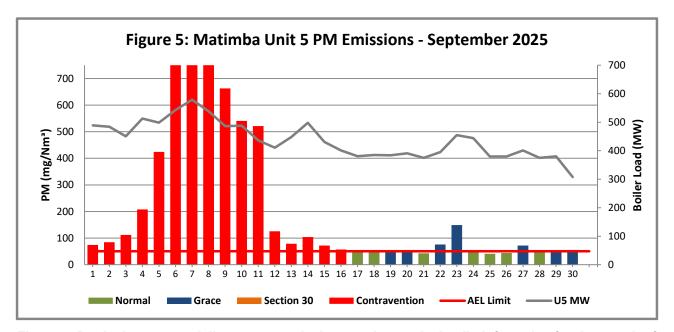


Figure 5: Particulate matter daily average emissions against emission limit for unit 5 for the month of September 2025

Interpretation: Unit 5 Particulate matter exceeded the daily limit of 50 mg/Nm³ on 1st to 15th of September 2025. All exceedances occurred outside of the 48-hour grace period and was recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence. The exceedances were due to high hopper levels causing electrostatic precipitators fields to trip and have low efficiency.

Unit 6 Particulate Emissions

Figure 6: Particulate matter daily average emissions against emission limit for unit 6 for the month of September 2025

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Interpretation: Unit 6 Particulate matter exceeded the daily limit of 50 mg/Nm³ on 3rd to 5th ad 10th to 15th of September 2025. All the exceedances occurred outside of the 48-hour grace period and was recorded on the Eskom incident management process as non-compliance to the Atmospheric Emissions Licence. The exceedances were due to high hopper levels causing electrostatic precipitators fields to trip and have low efficiency.

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2.3.2 Gaseous Emissions

Gaseous emissions analyzers calibration for all 6 units were performed in September 2025 as per the Eskom emission standard requirement.

The quality assurance tests (QAL2) used for September 2025 emission calculations were performed in June 2024 for Unit 2,3 and 4. Unit 1,5 and 6 quality assurance curves utilized are spot tests performed in August 2023

2.3.2.a SOx Emissions

Unit 1 SO₂ Emissions

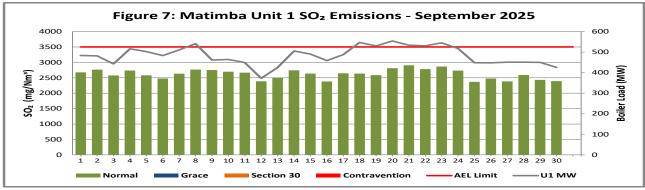


Figure 7: SO2 daily average emissions against emission limit for unit 1 for the month of September 2025

Interpretation: All daily averages below SO₂ emission monthly limit of 3500 mg/Nm³.

Unit 2 SO₂ Emissions

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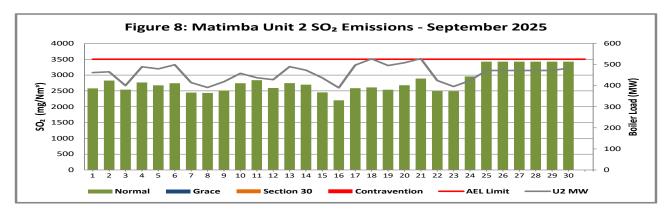


Figure 8: SO2 daily average emissions against emission limit for unit 2 for the month of September 2025

Interpretation: All daily averages below SO₂ emission monthly limit of 3500 mg/Nm³.SRM (Standard Reference Measurements from QAL2 tests) for Oxygen were used to calculate the SO₂ gaseous emissions for unit 2 in September 2025 due to defective monitor.

Unit 3 SO₂ Emissions

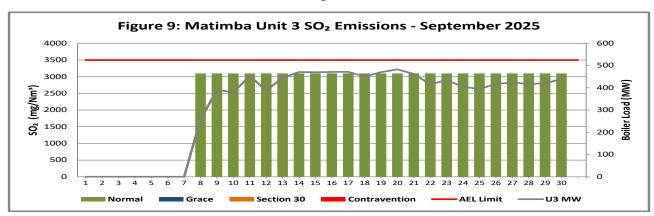


Figure 9: SO2 daily average emissions against emission limit for unit 3 for the month of September 2025

Interpretation: All daily averages below SO_2 emission monthly limit of 3500 mg/Nm³.SRM (Standard Reference Measurements) for all the gaseous parameters were used to calculate the SO_2 gaseous emissions for unit 3 in September 2025 due to defective monitor.

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Unit 4 SO₂ Emissions

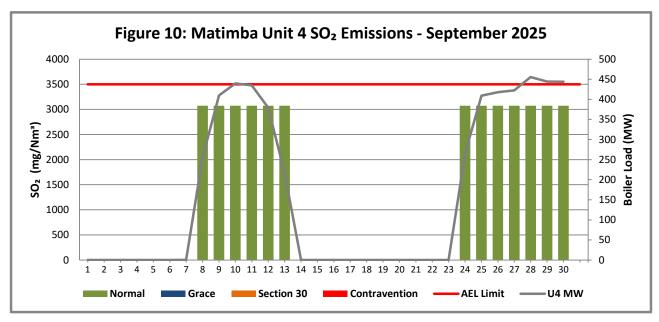


Figure 10: SO2 daily average emissions against emission limit for unit 4 for the month of September 2025

Interpretation: All daily averages below SO_2 emission monthly limit of 3500 mg/Nm³. SRM (Standard Reference Measurements) from the QAL 2 tests report for all the gaseous parameters were used to calculate the SO_2 gaseous emissions for unit 4 in September 2025 due to defective monitor.

Unit 5 SO₂ Emissions

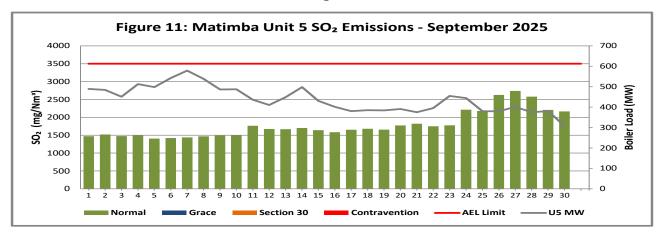


Figure 11: SO2 daily average emissions against emission limit for unit 5 for the month of September 2025

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Interpretation: All daily averages below SO₂ emission monthly limit of 3500 mg/Nm³. SRM (Standard Reference Measurements) from the QAL 2 test results for reference gas (Oxygen) were used to calculate the SO2 gaseous emissions for unit 5 in September 2025 due to low reliability on the Oxygen monitor.

Figure 12: Matimba Unit 6 SO₂ Emissions - September 2025 4000 600 3500 500 3000 400 mg/Nm³ 2500 300 2000 1500 200 1000 100 500 0 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 8 9 Normal ■ Grace Section 30 Contravention AEL Limit

Unit 6 SO₂ Emissions

Figure 12: SO2 daily average emissions against emission limit for unit 6 for the month of September 2025

Interpretation: All daily averages below SO2 emission monthly limit of 3500 mg/Nm3. SRM (Standard Reference Measurements) from the QAL 2 test results for reference gas (Oxygen) were used to calculate the SO2 gaseous emissions for unit 6 in September 2025 due to low reliability on the Oxygen monitor.

2.3.2.b NOx Emissions

Figure 13: Matimba Unit 1 NO_x Emissions - September 2025 800 600 700 500 600 NOx (mg/Nm³ 500 400 300 300 200 200 100 100 ■ Normal Section 30 **AEL Limit** Contravention

Unit 1 NO_x Emissions

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Figure 13: NOx daily average emissions against emission limit for unit 1 for the month of September 2025

Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³.

Unit 2 NO_x Emissions

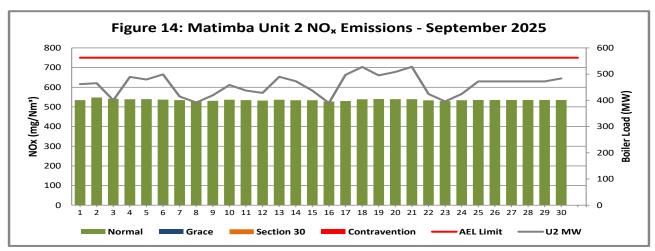


Figure 14: NOx daily average emissions against emission limit for unit 2 for the month of September 2025

Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³. SRM (Standard Reference Measurements from QAL2 tests) for Oxygen and Nitrogen were used to calculate the SO2 gaseous emissions for unit 2 in September 2025 due to defective monitor.

Unit 3 NO_x Emissions

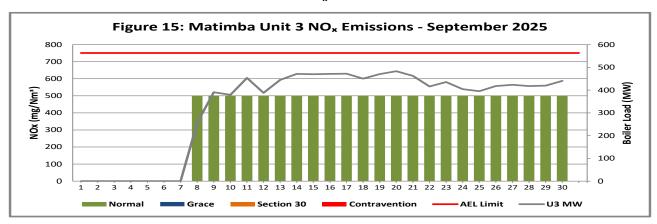


Figure 15: NOx daily average emissions against emission limit for unit 3 for the month of September 2025

Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³. SRM (Standard Reference Measurements) for all the gaseous parameters were used to calculate the NOx gaseous emissions for unit 3 in September 2025 due to defective monitor.

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Unit 4 NO_x Emissions

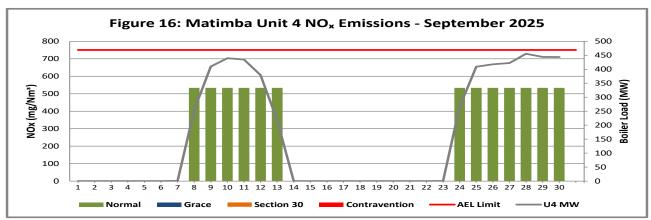


Figure 16: NOx daily average emissions against emission limit for unit 4 for the month of September 2025

Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³. SRM (Standard Reference Measurements) from the QAL 2 tests report for all the gaseous parameters were used to calculate the NOx gaseous emissions for unit 4 in September 2025 due to defective monitor.

Unit 5 NO_x Emissions

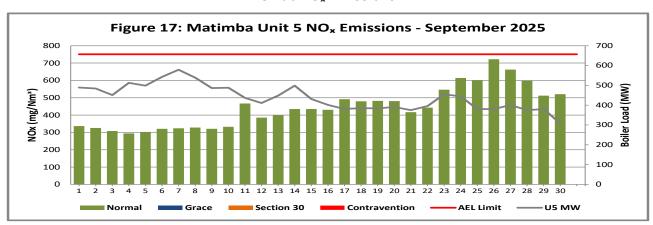


Figure 17: NOx daily average emissions against emission limit for unit 5 for the month of September 2025

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Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³. SRM (Standard Reference Measurements) from the QAL 2 test results for reference gas (Oxygen) were used to calculate the NOx gaseous emissions for unit 5 in September 2025 due to low reliability on the Oxygen monitor

Unit 6 NO_x Emissions

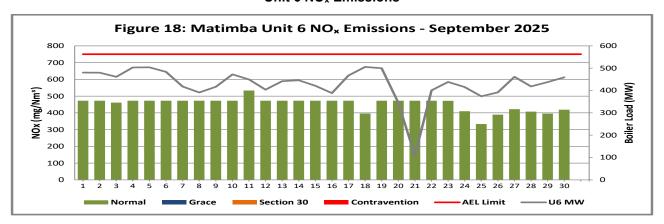


Figure 18: NOx daily average emissions against emission limit for unit 6 for the month of September 2025

Interpretation: All daily averages below NOx emission limit of 750 mg/Nm³. SRM (Standard Reference Measurements) from the QAL 2 test results for reference gas (Oxygen) were used to calculate the NOx gaseous emissions for unit 6 in September 2025 due to low reliability on the Oxygen monitor.

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2.3.3 Total Volatile Organic Compounds

Table 4: Total volatile compound estimates



CALCULATION OF EMISSIONS OF TOTAL VOLATILE COMPOUNDS FROM FUEL OIL STORAGE TANKS*

Date:	Tuesday, 28 October 2025
Station:	Matimba Power Station
Province:	Limpopo Province
Tank no.	1-4
Description:	Outdoor fuel oil storage tank
Tank Type:	Vertical fixed roof (vented to atmosphere)
Material stored:	Fuel Oil 150

MONTHLY INPUT DATA FOR THE STATION

Please only insert relevant monthly data inputs into the <u>blue cells</u> below Choose from a dropdown menu in the <u>green cells</u>

The total VOC emissions for the month are in the <u>red cells</u>

IMPORTANT: Do not change any other cells without consulting the AQ CoE

MONTH:	September			
GENERAL INFORM	ATION:		Data	Unit
Total number of fue	el oil tanks:		4	NA
Height of tank:			13.34	m
Diameter of tank:			9.53	m
Net fuel oil through	put for the month:		<u>1581.093</u>	
Molecular weight of	the fuel oil:		166.00	Lb/lb-mole
METEROLOGICAL	DATA FOR THE MONTH		Data	Unit
Daily average ambie	ent temperature		23.43	°C
Daily maximum amb	pient temperature		31.06	°C
Daily minimum amb	ient temperature		16.52	°C
Daily ambient temp	erature range		14.54	°C
Daily total insolation	n factor		4.41	kWh/m²/day
Tank paint colour		Gı	rey/medium	NA
Tank paint solar ab	sorbtance		0.68	NA
FINAL OUTPUT:			Result	Unit
Breathing losses:			0.54	kg/month
Working losses:			0.04	kg/month
TOTAL LOSSES (T	otal TVOC Emissions for the month):		0.59	kg/month
*** *** ***		110ED4 AD 40 0	4 0	

^{*}Calculations performed on this spreadsheet are taken from the USEPA AP-42- Section 7.1 Organic Liquid Storage Tanks - January 1996. This spreadsheet is derived from materials provided by Jimmy Peress, PE, Tritech Consulting Engineers, 85-93 Chevy Chase Street, Jamaica, NY 11432 USA, Tel - 718-454-3920, Fax - 718-454-6330, e-mail - PeressJ@nyc.rr.com.

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2.3.4 Greenhouse gas (CO₂) emissions

CO₂ emissions are reported in terms of the Greenhouse gas reporting regulations (GN 43712, GNR. 994/2020) and are not included in the monthly AEL compliance report.

2.4 Daily power generated.

Table 5: Daily power generated per unit in MWh for the month of September 2025

Date	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
2025/09/01	10561.6	9947.79	Unit off	Unit off	10514.5	10355
2025/09/02	10533.5	10034.6	Unit off	Unit off	10434.7	10369.2
2025/09/03	9664.8	8536.48	Unit off	Unit off	9713.24	9948
2025/09/04	11281.9	10526.4	Unit off	Unit off	11068.7	10864.7
2025/09/05	11000.6	10336.4	Unit off	Unit off	10746.3	10901.5
2025/09/06	10576.1	10785.4	Unit off	Unit off	11715.6	10471.3
2025/09/07	11200.9	8892.32	Unit off	Unit off	12509.3	9023.45
2025/09/08	11845.6	8378.28	5303.28	5307.94	11619.9	8448.51
2025/09/09	10073	8984.07	8369.8	8903.69	10485.5	8973.7
2025/09/10	10127.8	9865.15	8111.56	9588.63	10520.7	10212.5
2025/09/11	9801.18	9369.94	9771.79	9437.18	9393.08	9681.77
2025/09/12	8106.55	9157.72	8289.81	8184.83	8815.98	8672.26
2025/09/13	9257	10534.8	9561.87	4505.34	9649.83	9539.34
2025/09/14	11039.6	10165.7	10153.4	Unit off	10731.2	9646.38
2025/09/15	10696.8	9344.47	10127.7	Unit off	9251.59	9075.3
2025/09/16	10003.7	8290.95	10165.9	Unit off	8597.56	8363.03
2025/09/17	10620.1	10668.9	10179.9	Unit off	8133.4	10122.8
2025/09/18	11948.3	11341	9727.93	Unit off	8267.5	10938.2
2025/09/19	11581.3	10613.4	10175.4	Unit off	8223.65	10794.8
2025/09/20	12161.1	10941	10450.2	Unit off	8392.09	7378.41
2025/09/21	11698.1	11365.3	10001.6	Unit off	8045.4	2065.02
2025/09/22	11620.4	9067.62	8944.22	Unit off	8478.93	8590.87
2025/09/23	11933.1	8413.87	9383.36	Unit off	9775.28	9462.68
2025/09/24	11335.7	8909.32	8686.22	5521.86	9573.93	8945.02
2025/09/25	9827.02	8085.36	8467.13	8868.51	8172.1	8034.57
2025/09/26	9847.05	8093.04	8961.88	9043.64	8188.77	8383.24
2025/09/27	9899.16	8086.1	9116.35	9147.44	8634.56	9966.98
2025/09/28	9891.38	7475.64	8987.28	9924.4	8050.85	9033.31
2025/09/29	9869.64	8797.98	9022.2	9667.8	8170.64	9441.1
2025/09/30	9294.2	10083.8	9481.88	9695.36	6530.58	9947.12

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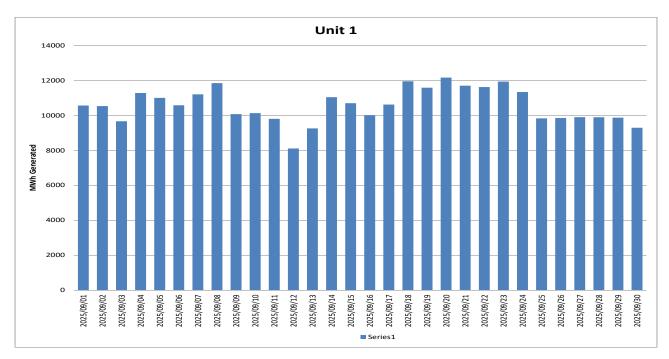


Figure 19: Unit 1 daily generated power in MWh for the month of September 2025

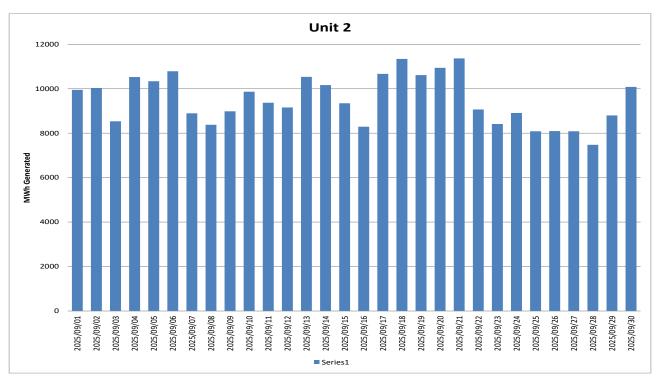


Figure 20: Unit 2 daily generated power in MWh for the month of September 2025

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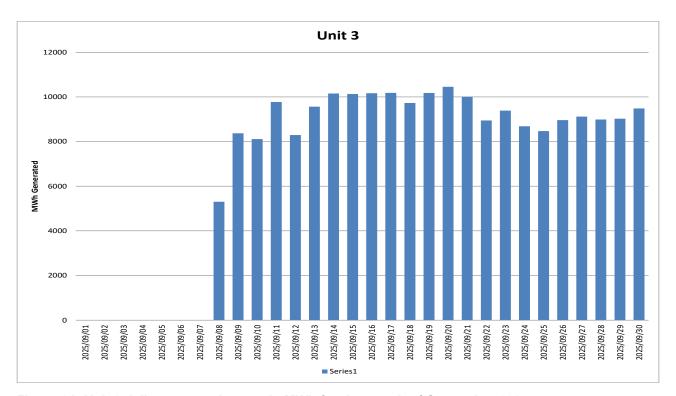


Figure 21: Unit 3 daily generated power in MWh for the month of September 2025

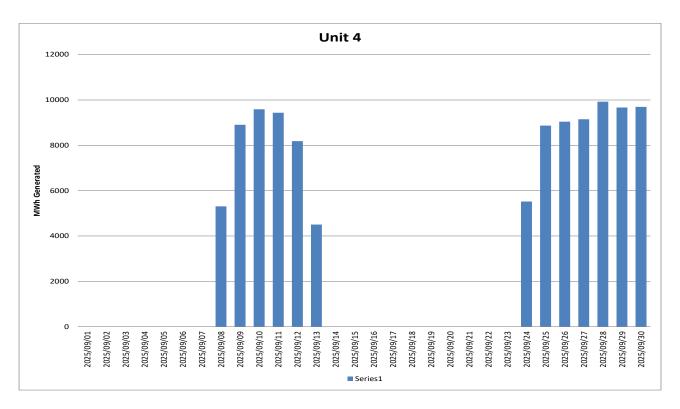


Figure 22: Unit 4 daily generated power in MWh for the month of September 2025

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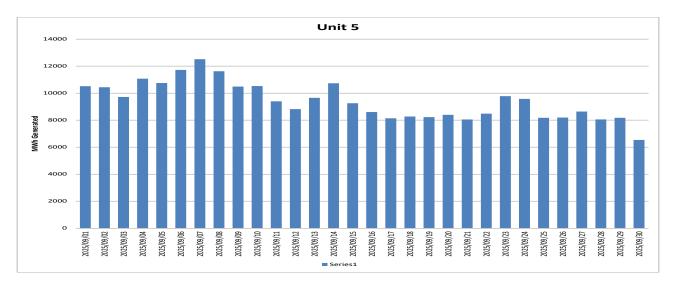


Figure 23: Unit 5 daily generated power in MWh for the month of September 2025

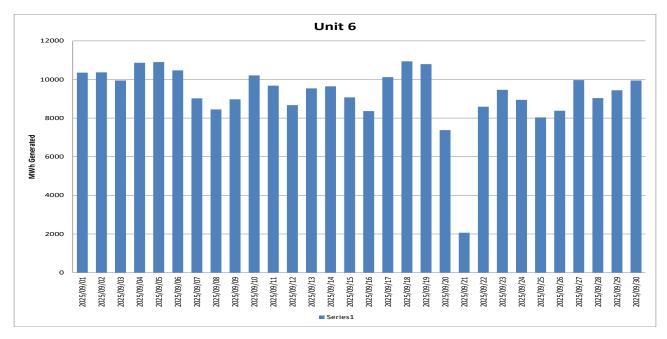


Figure 24: Unit 6 daily generated power in MWh for the month of September 2025

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2.5 Pollutant Tonnages

The emitted pollutant tonnages for September 2025 are provided in table 6.

Table 6: Pollutant tonnages for the month of September 2025

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	77.0	4 327	705
Unit 2	190.9	7 020	1 352
Unit 3	14.7	3 876	627
Unit 4	140.0	3 280	569
Unit 5	457.9	3 153	782
Unit 6	85.0	2 745	577
SUM	965.42	24 401	4 612

2.6 Operating days in compliance to PM AEL Limit

Table 7: Operating days in compliance with PM AEL limit of September 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Avg (mg/Nm³)
Unit 1	21	1	0	8	9	45.2
Unit 2	13	6	0	11	17	73.8
Unit 3	22	0	0	0	0	12.2
Unit 4	4	4	0	3	7	151.2
Unit 5	7	7	0	16	23	236.9
Unit 6	20	4	0	5	9	67.7
SUM	87	22	0	43	65	

2.7 Operating days in compliance to SOx AEL Limit

Table 8: Operating days in compliance with SOx AEL limit of September 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Avg (mg/Nm³)
Unit 1	30	0	0	0	0	424.9
Unit 2	30	0	0	0	0	535.4
Unit 3	23	0	0	0	0	501.2
Unit 4	13	0	0	0	0	533.4
Unit 5	30	0	0	0	0	443.7
Unit 6	30	0	0	0	0	454.0
SUM	156	0	0	0	0	

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2.8 Operating days in compliance to NOx AEL Limit

Table 9: Operating days in compliance with NOx AEL limit of September 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Limit Value	Mnth Avg (mg/Nm³)
Unit 1	30	0	0	0	0	3500	2 619.0
Unit 2	30	0	0	0	0	3500	2 786.4
Unit 3	23	0	0	0	0	3500	3 100.0
Unit 4	13	0	0	0	0	3500	3 072.7
Unit 5	30	0	0	0	0	3500	1 784.7
Unit 6	30	0	0	0	0	3500	2 163.0
SUM	156	0	0	0	0		

2.9 Continuous Emission Monitors

Table 10: Monitor reliability percentage (%)

Associated Unit/Stack	РМ	SO ₂	NO	O ₂
Unit 1	100.0	99.9	99.9	100.0
Unit 2	98.3	77.8	100.0	100.0
Unit 3	82.4	100.0	100.0	100.0
Unit 4	90.2	100.0	100.0	100.0
Unit 5	87.5	98.5	98.3	79.3
Unit 6	88.4	26.9	25.4	100.0

Note: NOx emissions are measured as NO in PPM. Final NOx value is expressed as total NO2.

Comments:

Continuous emission monitors operating at reliability less than 80% for unit 2,3,4 and 6 for the reporting period due to defective monitors. Unit 2 monitor was found to have a sinter is blockage. and faulty heater relay, Unit 3 had filter wheel defected ,all spares required for defects corrections ordered. Unit 2, 3 and 4 gaseous monitor reliability was 100% due to the SRM (Standard Reference Material) values from the parallel test used to calculate the gaseous emissions for unit 2, 3 and 4

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2.10.1 Changes, downtime, and repairs

Unit 1

- No adjustments done on the CEMs.
- Correlation test done in September 2025.

Unit 2

- No adjustments done on the CEMs.
- No downtime or repairs done on the particulate monitors.

Unit 3

- No adjustments done on the CEMs.
- No downtime or repairs done on the particulate monitors.

Unit 4

- No adjustments done on the CEMs.
- No downtime or repairs done on the particulate monitors.

Unit 5

- No adjustments done on the CEMs.
- Correlation test to be done.

Unit 6

- No adjustments done on the CEMs.
- Correlation test done in September 2025

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2.10.2 Sampling dates and times

Table 11: Dates of last full conducted CEMS verification tests for PM for unit 6.

Name of service provider:		Stacklabs Environmental Services CC				
Address of service provider:		10 Chisel Street Boltonia Krugersdorp 1739				
Stack/ Unit PM		SO ₂	NOx	CO ₂		
6	2020/09/09 06h41	New sampling tests in table 14	New sampling tests in table 14	New sampling tests in table 14		

Table 12: Dates of last conducted CEMS Spot verification tests for PM, SO₂ and NOx for unit 1, 5 and 6)

Name of serv	vice provider:	Levego Environmental services				
Address of service provider:		Building R6 Pineland site Ardeer Road Modderfontein 1645				
Stack/ Unit	PM	SO₂	NOx	CO ₂		
1	2023/08/01 19h33	2023/08/01 19:33	2023/08/01 19:33	2023/08/01 19:33		
5 2023/08/05 07:30		2023/08/05 07:30	2023/08/05 07:30	2023/08/05 07:30		
Dates in table 13 above		2023/08/05 15:52	2023/08/05 15:52	2023/08/05 15:52		

Note: The CEMS Spot verification tests for PM, SO₂ and NOx were performed in August 2023. PM spot verification test results for unit 6 failed and old curves are still in use.

Table 13: Dates of last full conducted CEMS verification tests for PM for unit 2, unit 3 and 4 only

Name of serv	rice provider:	Levego Environmental services				
Address of s	ervice provider:	Building R6 Pineland site Ardeer Road Modderfontein 1645				
Stack/ Unit	PM	SO ₂	NOx	CO ₂		
2	2024/07/02 08h50	2024/07/02 12h35	2024/07/02 12h35	2024/07/02 12h35		
3	2024/06/23 16h34	2024/06/23 14h00 2024/06/23 14h00 2024/06/23 14h				
4	2024/06/29 16h05	2024/06/29 11h00 2024/06/29 11h00 2024/06/29 11h00				

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2.10 Units Start-up information

Table 14: Start-up information

Unit	3	
Fires in	2025/09/08	00h25
Synchronization with Grid	2025/9/08	08h51
Emissions below limit	2025/08/31	15h00
Fires in, to synchronization	8.26	HOURS
Synchronization to < Emission limit	6.9	HOURS

Unit	4		
Fires in	2025/09/07	04h12	
Synchronization with Grid	2025/09/08	05h03	
Emissions below limit	2025/09/08	10h08	
Fires in, to synchronization	24.51	HOURS	
Synchronization to < Emission limit	5.5	HOURS	

Unit	4			
Fires in	2025/09/24	00h57		
Synchronization with Grid	2025/09/24	07h12		
Emissions below limit	2025/09/24	14h02		
Fires in, to synchronization	6.14	HOURS		
Synchronization to < Emission limit	6.50	HOURS		

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2.11 Emergency generation

Table 15: Emergency generation

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Emergency Generation hours declared by national Control	720	720	720	720	720	720
Emergency Hours declared including hours after standing down	718	720	543	287	714	694
Days over the Limit during Emergency Generation	9	17	0	7	23	9

During the period under review all Units were on emergency generation in force from 01 September 2025 until 30 September 2025.

2.12 Complaints register.

Table 16: Complaints

Source C Name	Code/	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
None						

2.13 Air quality improvements and social responsibility conducted.

Air quality improvements

None

Social responsibility conducted.

None

2.14 Ambient air quality monitoring

The September 2025 ambient air quality monitoring report is attached to this report as an addendum.

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2.15 Electrostatic precipitator and Sulphur plant status

Unit 1

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

Unit 2

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

Unit 3

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

Unit 4

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

Unit 5

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

Unit 6

- High hopper levels cause a decline in precipitator performance.
- The SO₃ plant is operating normally with no abnormalities observed.

SO₃ common plant

The SO₃ common plant is operating normally with no abnormalities observed.

2.16 General

Name and reference number of the monitoring methods used:

- 1. Particulate and gas monitoring according to standards
 - a. BS EN 14181:2004 Quality Assurance of Automated Measuring Systems
 - b. ESKOM internal standard 240-56242363 Emissions Monitoring and Reporting Standard

Sampling locations:

- 1. Stack one
 - a. Particulates:
 - i. S23° 40' 2.8" E027° 36' 34.8" 175m from ground level and 75m from the top.
 - b. Gas:
 - i. S23° 40' 2.8" E027° 36' 34.8" 100m from ground level and 150m from the top.
 - c. Stack height
 - i. 250 meter consist of 3 flues
- 2. Stack two
 - a. Particulates:

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- i. S23° 40' 14.8" E027° 36' 47.5" 175m from ground level and 75m from the top.
- b. Gas:
 - i. S23° 40' 14.8" E027° 36' 47.5" 100m from ground level and 150m from the top.
- c. Stack height
 - i. 250 meter consist of 3 flues

3. Attachments

- Fugitive dust fall out monitoring report and Ambient air quality report.
- Marapong ambient air quality report

4. Report Conclusion

The rest of the information demonstrating compliance with the emission license conditions is supplied in the annual emission report sent to your office.

Hoping the above will meet your satisfaction.

I hereby declare that the information in this report is correct.

Yours sincerely

GENERAL MANAGER: MATIMBA POWER STATION