

	<b>Matimba Power Station Emissions report</b>	<b>Matimba Power Station</b>
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## 1. Report Summary

Matimba Power Station was issued with an Atmospheric Emission License (H16/1/13-WDM05) in November 2021. 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 February 2022.



During the period under review, Matimba experienced 30 exceedances of the daily particulate matter emission limit ( $50\text{mg}/\text{Nm}^3$ ) all of these exceedances remained within the 48-hour grace period. No exceedances of the monthly  $\text{SO}_x$  limit ( $3500\text{mg}/\text{Nm}^3$ ) or the daily  $\text{NO}_x$  emission limit ( $750\text{mg}/\text{Nm}^3$ ) occurred.

Issues mentioned above are discussed further under the respective 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
	Coal	Tons/month	1 500 000	1 065 678
	Fuel Oil	Tons/month	1 200	676,65
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate
	Energy	GWh	4 212.6	1 793,69

The consumption rates for the month of February 2022 were within the permitted maximum limit.

### 2.2 Abatement technology

**Table 2:** Abatement Equipment Control Technology Utilised

Associated Unit	Technology Type	Minimum utilisation (%)	Efficiency (%)
Unit 1	Electrostatic Precipitator	100%	99,87%
Unit 2	Electrostatic Precipitator	100%	99,9%
Unit 3	Electrostatic Precipitator	100%	99,91%
Unit 4	Electrostatic Precipitator	100%	99,89%
Unit 5	Electrostatic Precipitator	100%	99,85%
Unit 6	Electrostatic Precipitator	100%	99,87%
Associated Unit	Technology Type	Minimum utilisation (%)	Actual Utilisation (%)
Unit 1	SO <sub>3</sub> Plant	100%	89,29%
Unit 2	SO <sub>3</sub> Plant	100%	100%
Unit 3	SO <sub>3</sub> Plant	100%	100%
Unit 4	SO <sub>3</sub> Plant	100%	100%
Unit 5	SO <sub>3</sub> Plant	100%	100%
Unit 6	SO <sub>3</sub> Plant	100%	100%

Flue gas conditioning plant availability was below the required 100% for unit 1 due to an unexpected breakdown. The defect was addressed, and the plant is operational.

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## 2.3 Energy source characteristics

**Table 3:** Energy Source Material Characteristics.

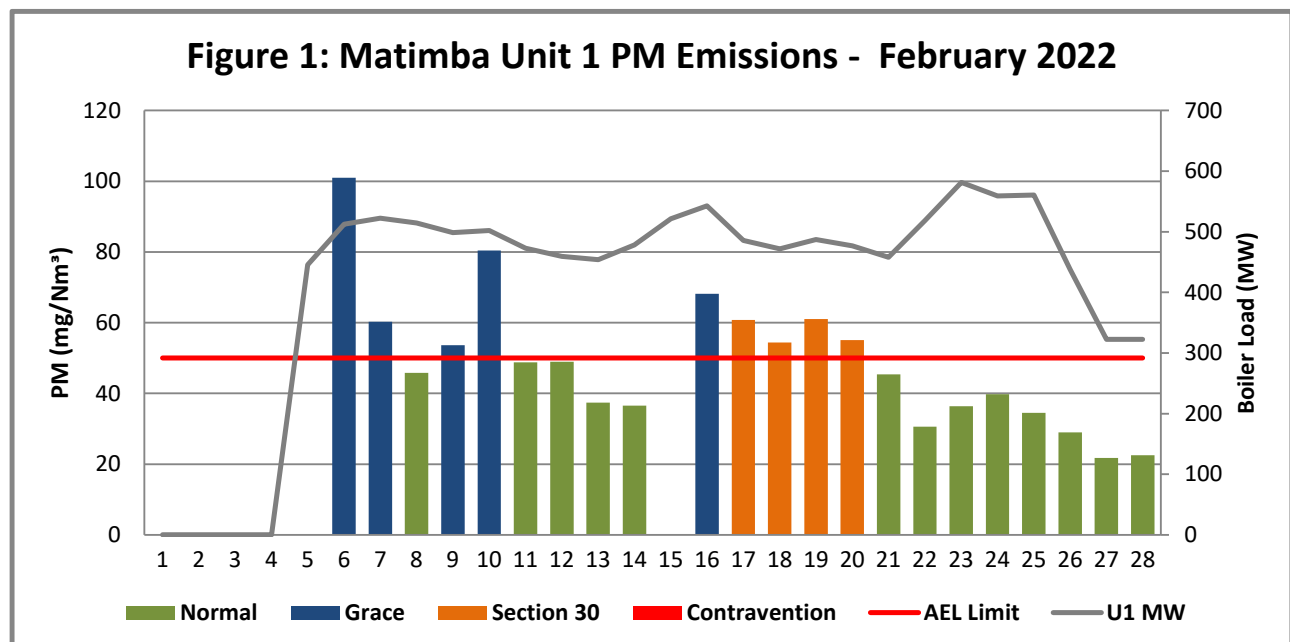
	Characteristic	Stipulated Range (Unit)	Monthly Average Content
Coal burned	Sulphur Content	1.6%	1,22%
	Ash Content	40%	34,46%

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

## 2.4 Emissions reporting

### 2.4.1 Particulate Matter Emissions

#### Unit 1 Particulate Emissions



**Figure 1: Particulate matter daily average emissions against emission limit for unit 1 for the month of February 2022**

#### Interpretation:

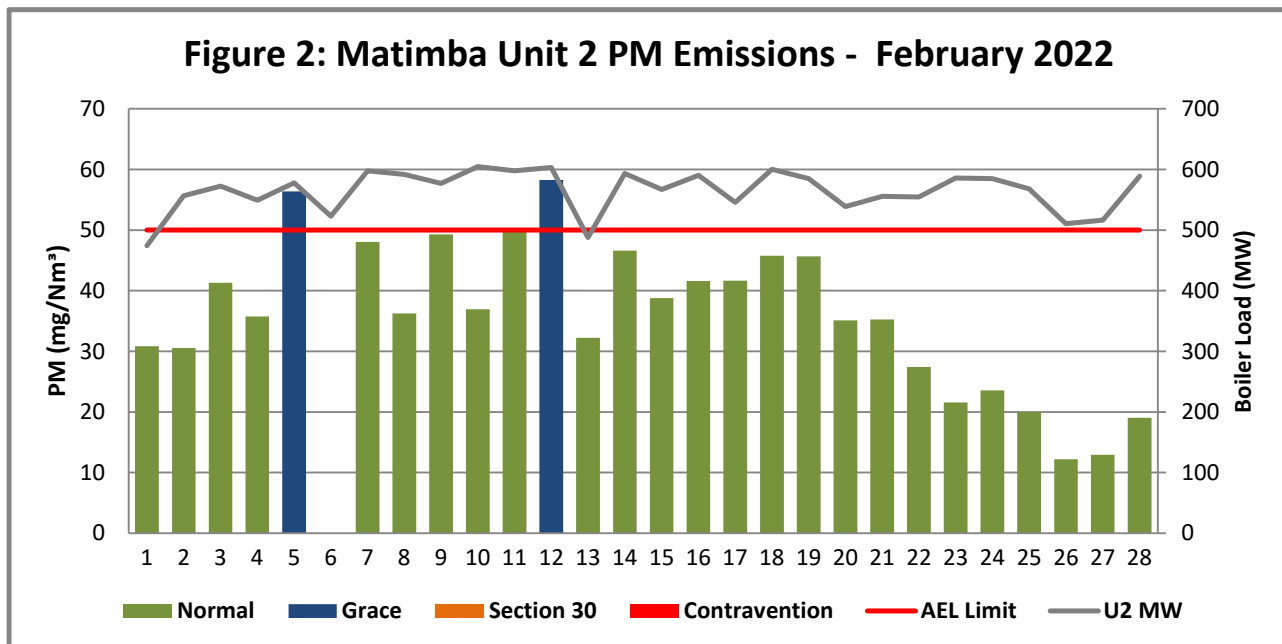
Unit 1 exceeded the 50mg/Nm<sup>3</sup> emission limit on 6, 7, 9, 10 and 16 to 20 February 2022. Exceedances were due to the failure of the unit 1 bunker top chain conveyor, that caused ash to build-up within the dust handling plant. The conveyor was repaired on 19 February 2022 and the emissions returned to below the limit on 21 February 2022. A section 30 incident was reported due to the 48hour grace period being exceeded on 17 February 2022.

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## Unit 2 Particulate Emissions



**Figure 2: Particulate matter daily average emissions against emission limit for unit 2 for the month of February 2022**

#### Interpretation:

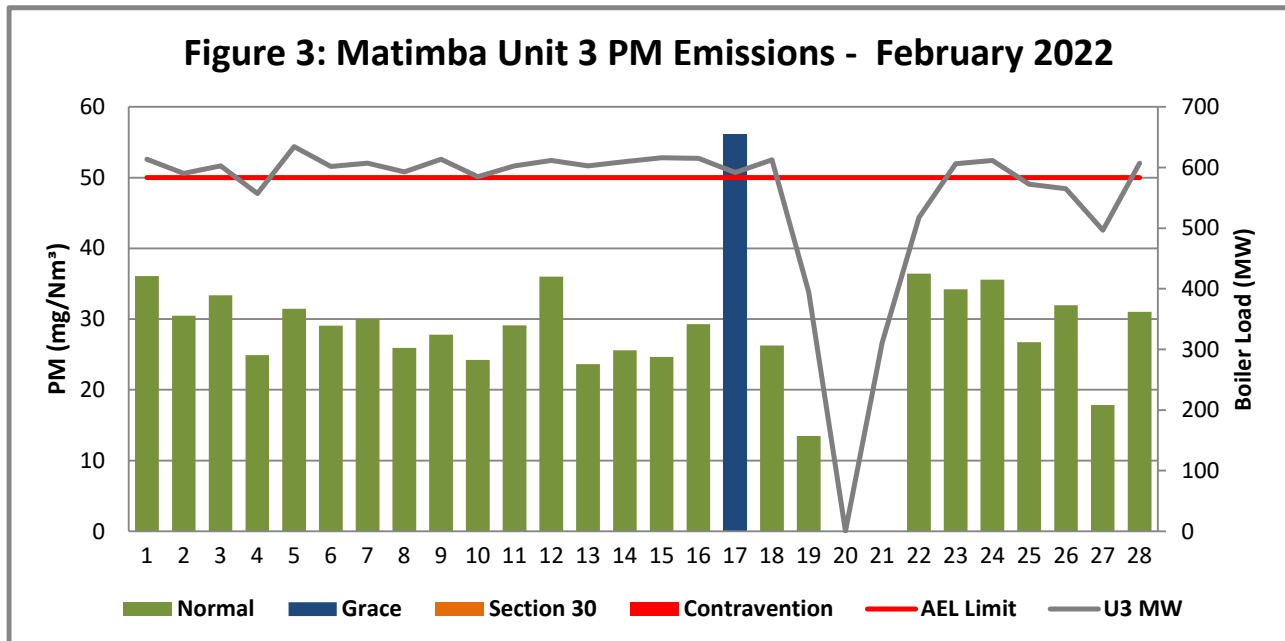
Unit 2 exceeded the daily average limit of 50 mg/Nm<sup>3</sup> on 5 and 12 February 2022. The exceedances were due to failures on the ash plant that led to a build-up of ash within the flue gas stream which reduced the efficiency of the electrostatic precipitator fields. Both exceedances remained within the 48-hour grace period.

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## Unit 3 Particulate Emissions



**Figure 3: Particulate matter daily average emissions against emission limit for unit 3 for the month of February 2022**

**Interpretation:**

Unit 3 exceeded the daily average limit of 50mg/Nm<sup>3</sup> on 17 February 2022. The exceedance was due to failures on the ash plant that led to a build-up of ash within the flue gas stream which reduced the efficiency of the electrostatic precipitator fields. The exceedance remained within the 48-hour grace period.

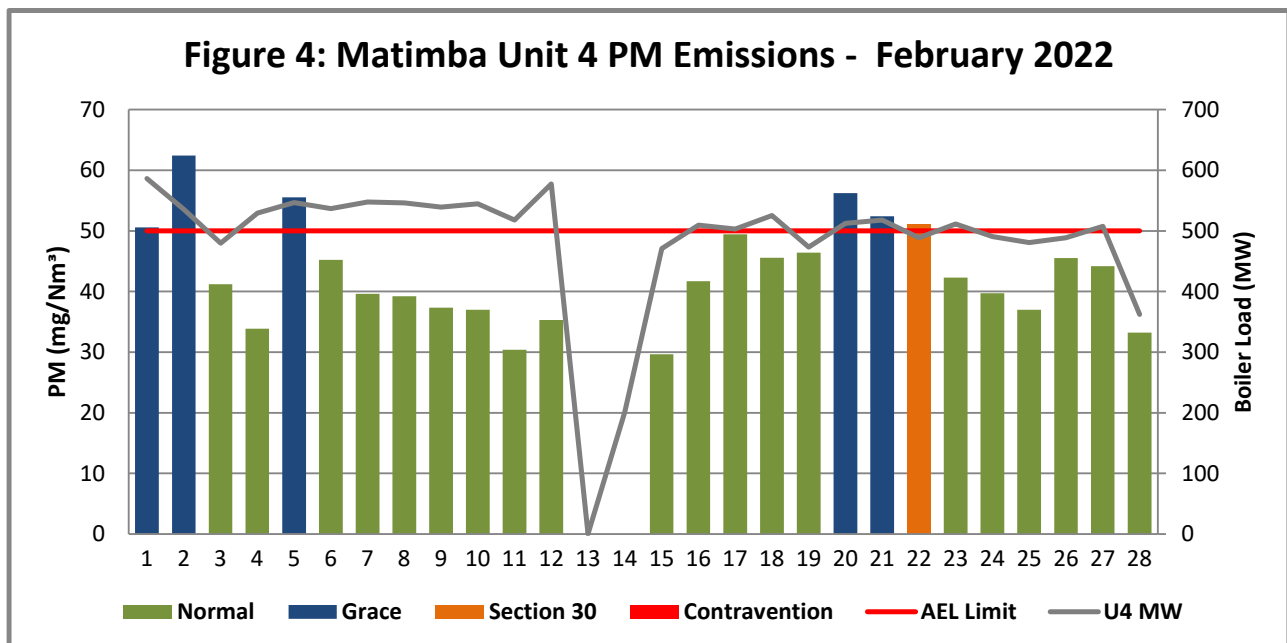
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## Unit 4 Particulate Emissions



**Figure 4: Particulate matter daily average emissions against emission limit for unit 4 for the month of February 2022**

#### Interpretation:

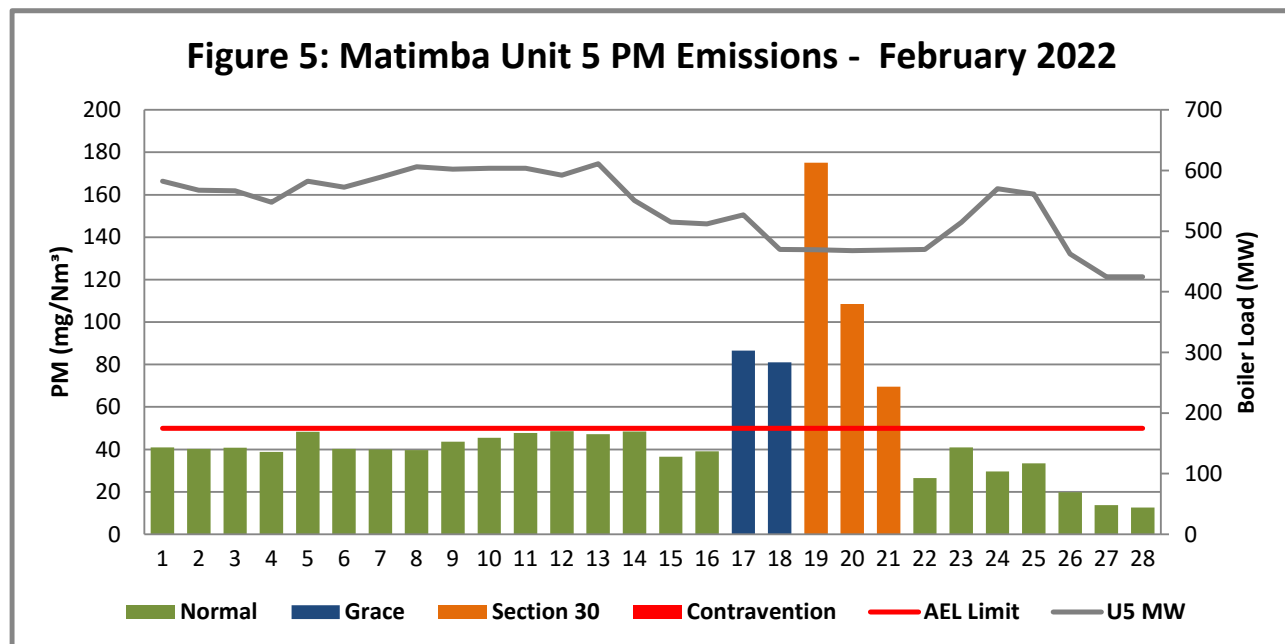
Unit 4 exceeded the daily limit of 50mg/Nm<sup>3</sup> on 1, 2, 5 and 20 to 22 February 2022. The exceedances occurred due to ineffective precipitator fields that were damaged by ash build-up within the flue gas stream. A section 30 incident was reported for the exceedance that occurred from 20 until 22 February 2022 due to the 48-hour grace period being exceeded on 22 February 2022. Mitigations were implemented and the emissions returned to below the limit on 23 February 2022. The unit was also shut down for maintenance on 28 February 2022. All other exceedances remained within the 48-hour grace period.

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## Unit 5 Particulate Emissions



**Figure 5: Particulate matter daily average emissions against emission limit for unit 5 for the month of February 2022**

**Interpretation:**

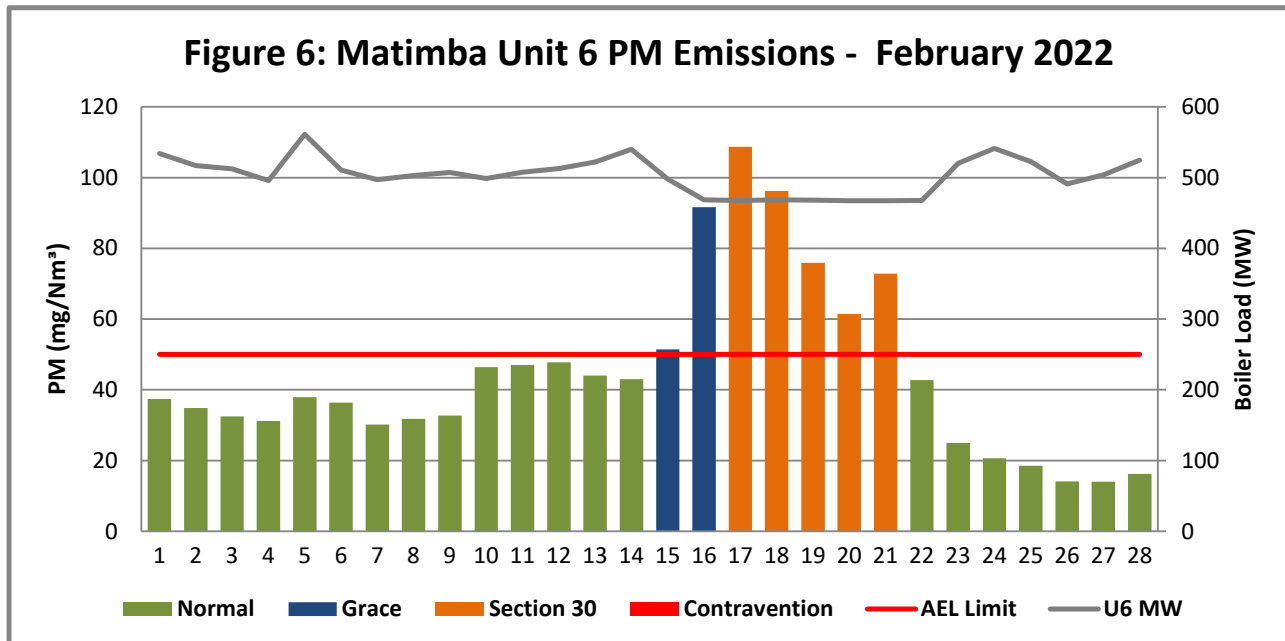
Unit 5 exceeded the daily limit of 50mg/Nm<sup>3</sup> from 17 to 21 February 2022. Exceedances were due to the failure of the unit 5 bunker top chain conveyor, that caused ash to build-up within the dust handling plant. The conveyor was repaired on 20 February 2022 and the emissions returned to below the limit on 22 February 2022. A section 30 incident was reported due to the 48-hour grace period being exceeded on 19 February 2022.

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## Unit 6 Particulate Emissions



**Figure 6: Particulate matter daily average emissions against emission limit for unit 6 for the month of February 2022**

**Interpretation:**

Unit 6 exceeded the daily limit of 50mg/Nm<sup>3</sup> from 15 to 21 February 2022. Exceedances were due to the failure of the unit 6 bunker top chain conveyor, that caused ash to build-up within the dust handling plant. The conveyor was repaired on 20 February 2022 and the emissions returned to below the limit on 21 February 2022. A section 30 incident was reported due to the 48hour grace period being exceeded on 17 February 2022.

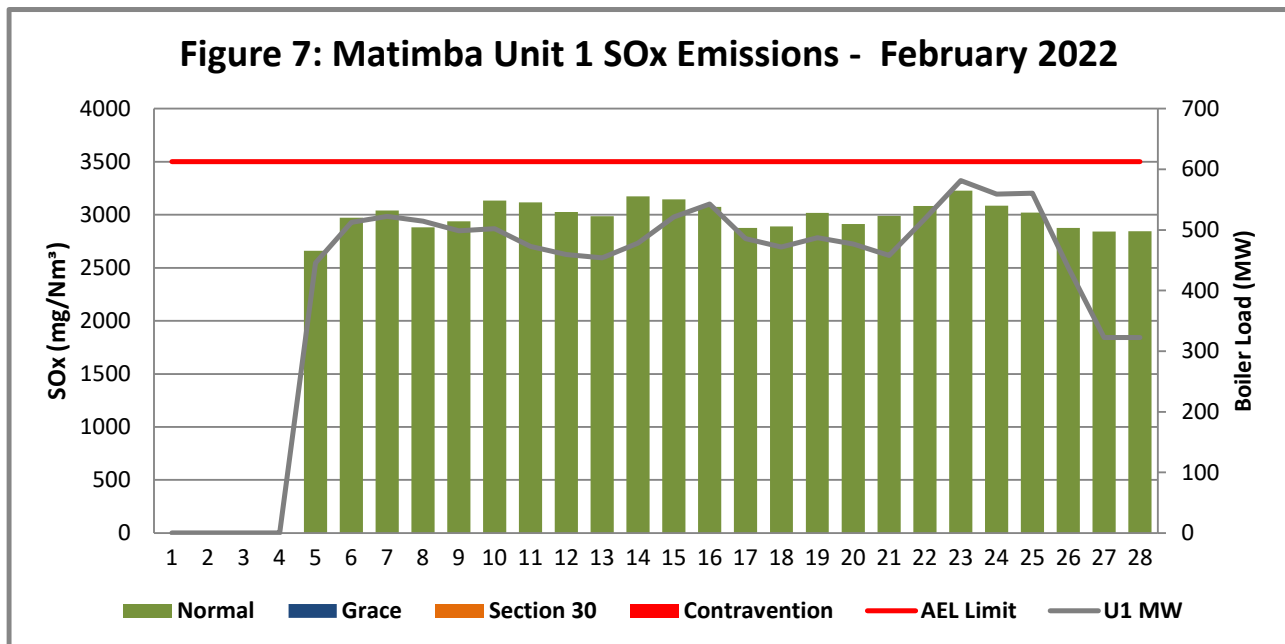
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## 2.4.2 Gaseous Emissions

### Unit 1 SO<sub>2</sub> Emissions



**Figure 7: SO<sub>2</sub> daily average emissions against emission limit for unit 1 for the month of February 2022**

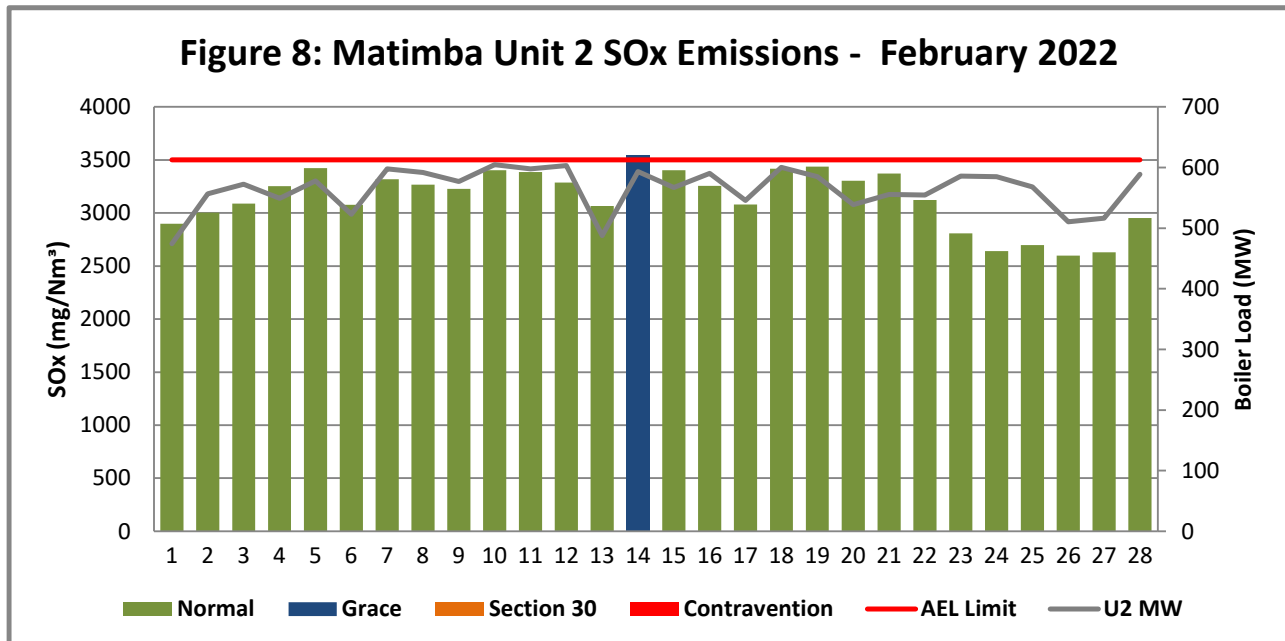
#### Interpretation:

All daily averages below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>.

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Unit 2 SO<sub>2</sub> Emissions

**Figure 8: SO<sub>2</sub> daily average emissions against emission limit for unit 2 for the month of February 2022**

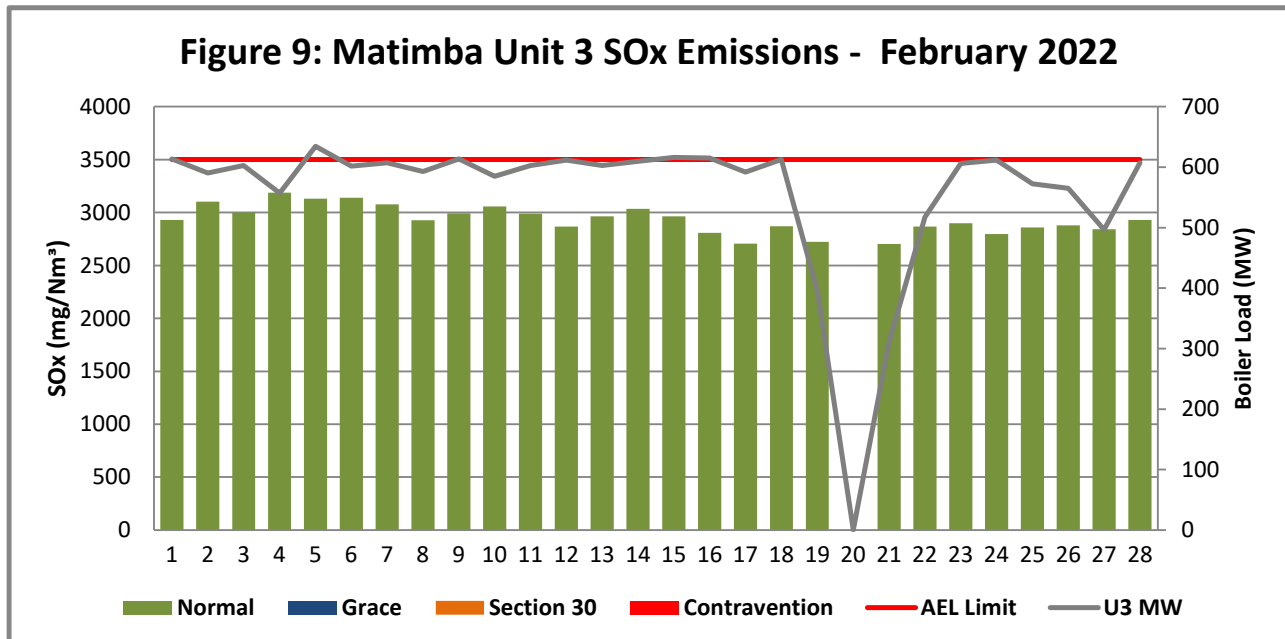
**Interpretation:**

Unit 2 monthly average (3141 mg/Nm<sup>3</sup>) remained below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>. Increased emissions were experienced on 14 February 2022. The increase is suspected to be due to premature failure of the optic lenses of the gaseous analysers. The lenses were replaced on 22 February 2022 and emissions reduced.

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Unit 3 SO<sub>2</sub> Emissions

**Figure 9: SO<sub>2</sub> daily average emissions against emission limit for unit 3 for the month of February 2022**

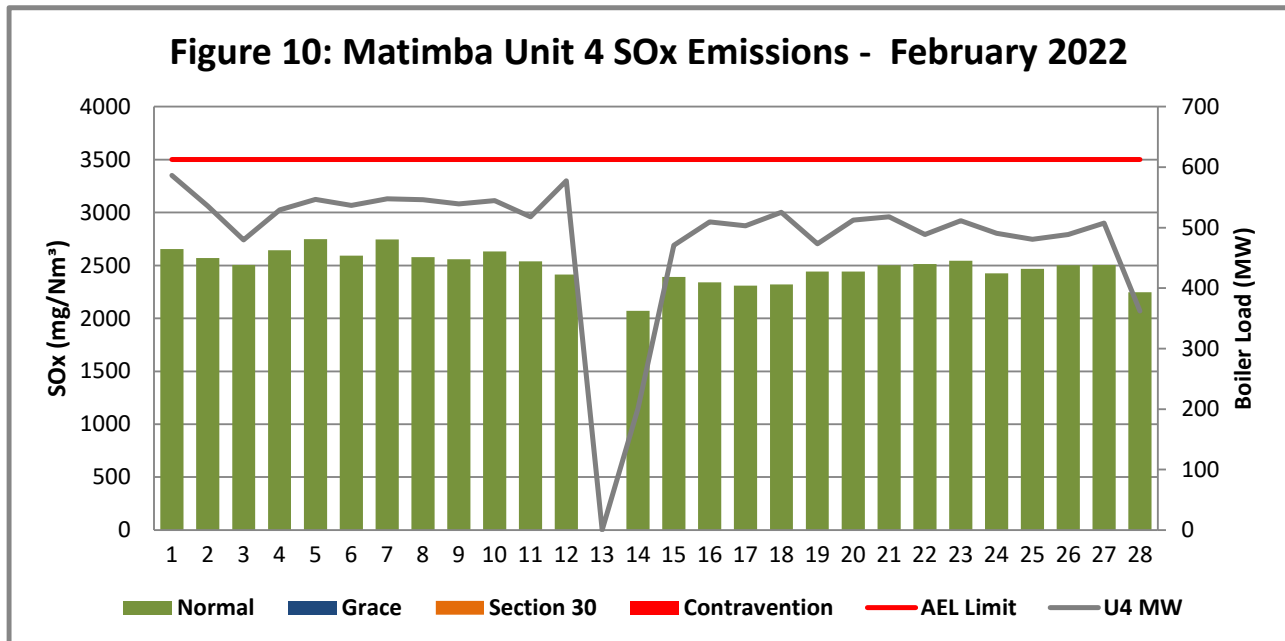
**Interpretation:**

All daily averages below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>.

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**Unit 4 SO<sub>2</sub> Emissions**

**Figure 10: SO<sub>2</sub> daily average emissions against emission limit for unit 4 for the month of February 2022**

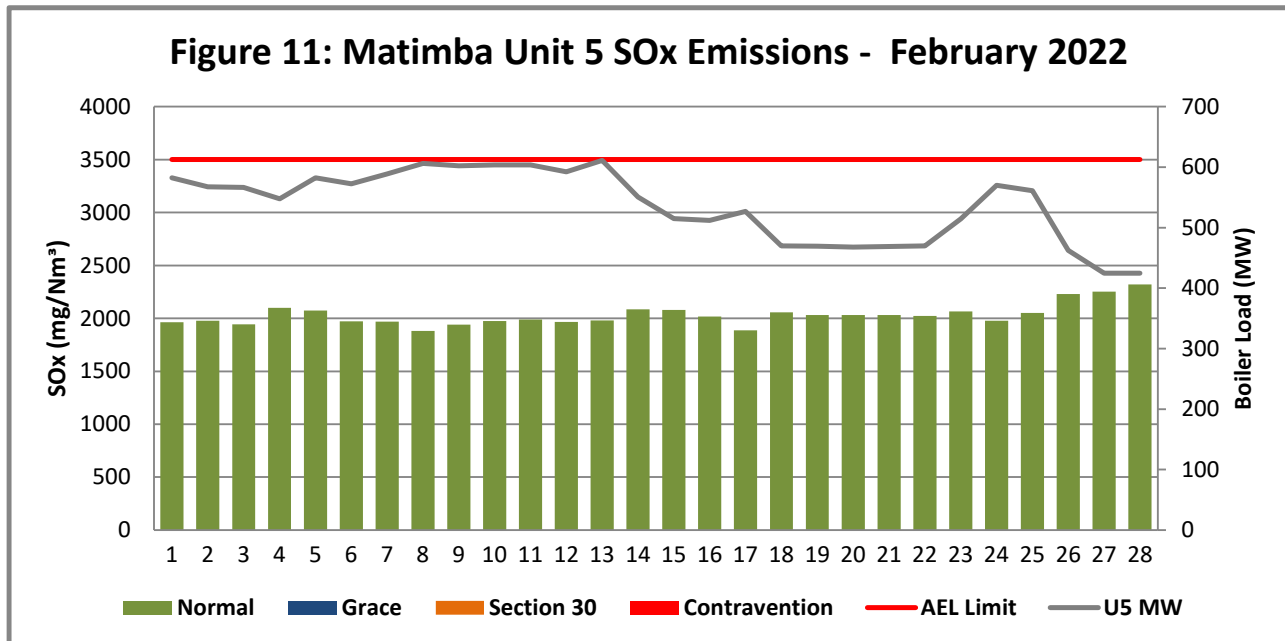
**Interpretation:**

All daily averages below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>.

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Unit 5 SO<sub>2</sub> Emissions

**Figure 11: SO<sub>2</sub> daily average emissions against emission limit for unit 5 for the month of February 2022**

**Interpretation:**

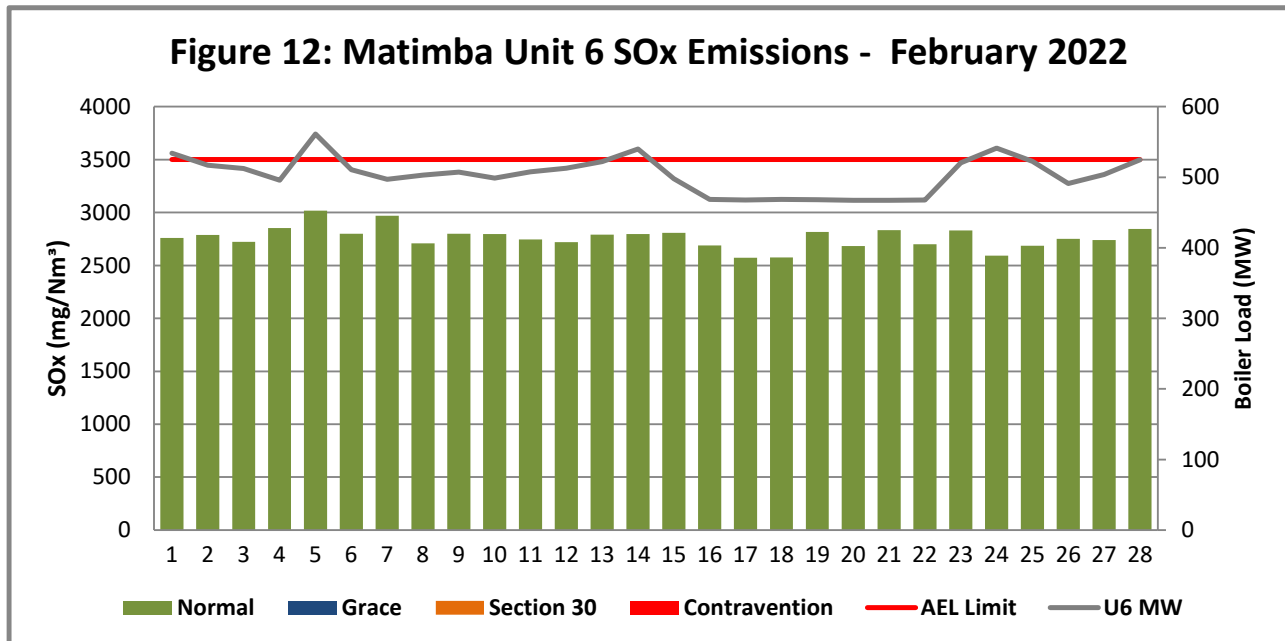
All daily averages below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>.

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Unit 6 SO<sub>2</sub> Emissions

**Figure 12: SO<sub>2</sub> daily average emissions against emission limit for unit 6 for the month of February 2022**

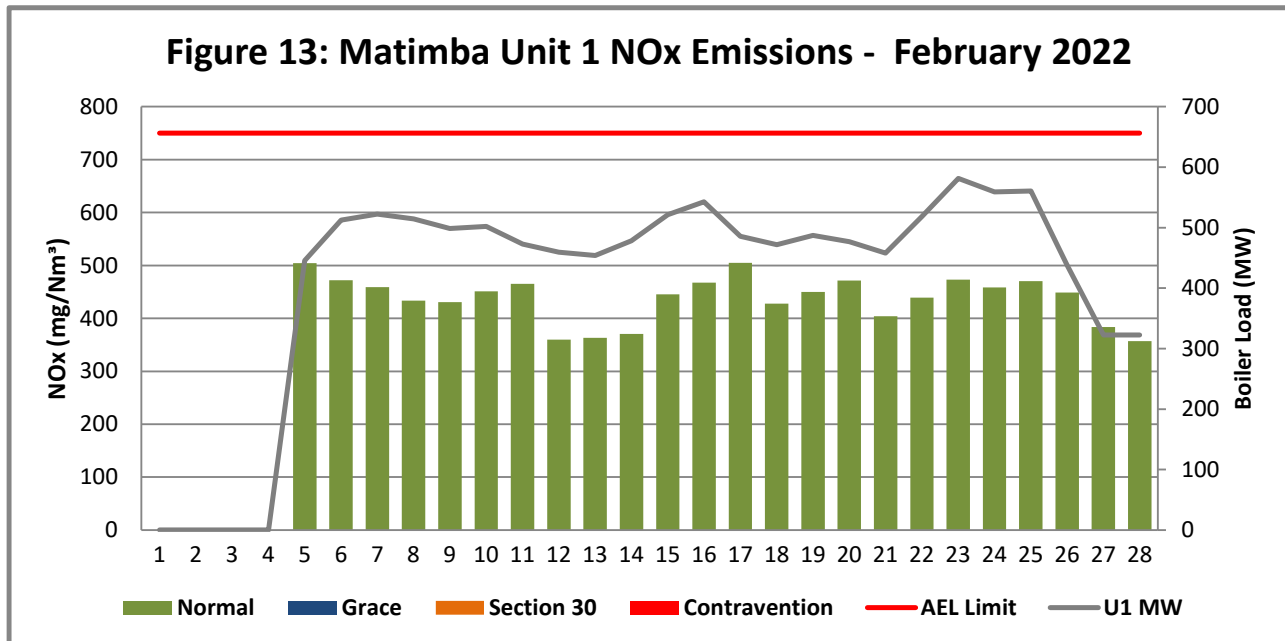
**Interpretation:**

All daily averages remained below SO<sub>2</sub> emission monthly limit of 3500 mg/Nm<sup>3</sup>.

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Unit 1 NO<sub>x</sub> Emissions

**Figure 13: Figure 14: NO<sub>x</sub> daily average emissions against emission limit for unit 1 for the month of February 2022**

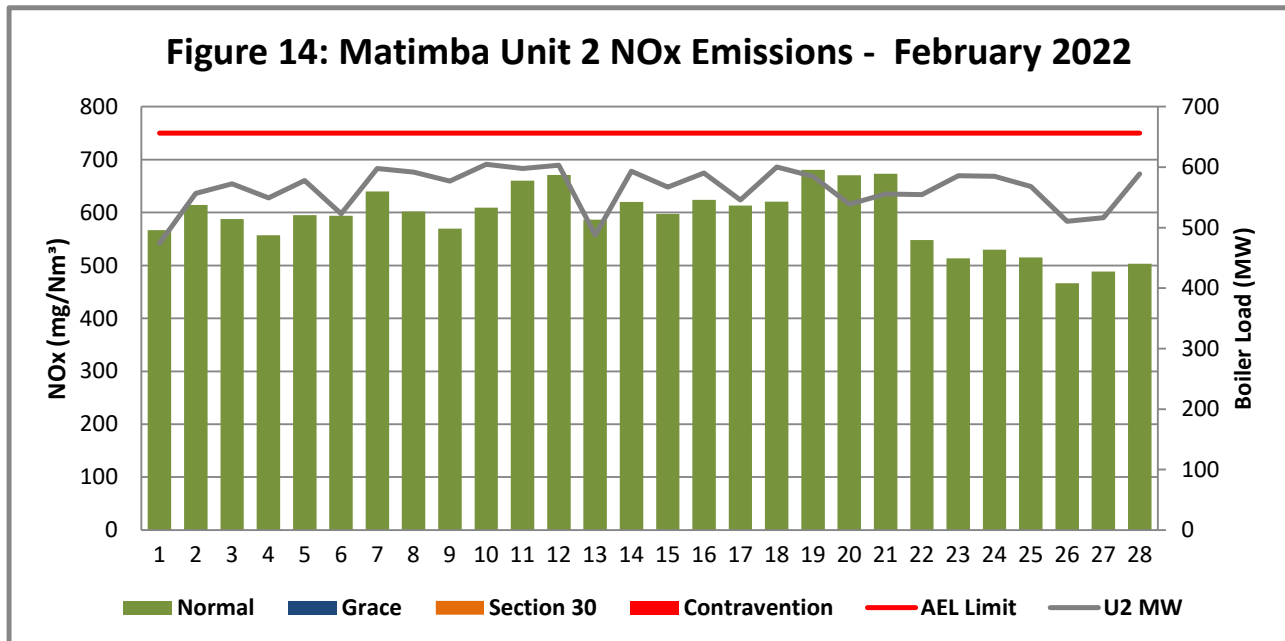
**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.

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Unit 2 NO<sub>x</sub> Emissions

**Figure 15: NO<sub>x</sub> daily average emissions against emission limit for unit 2 for the month of February 2022**

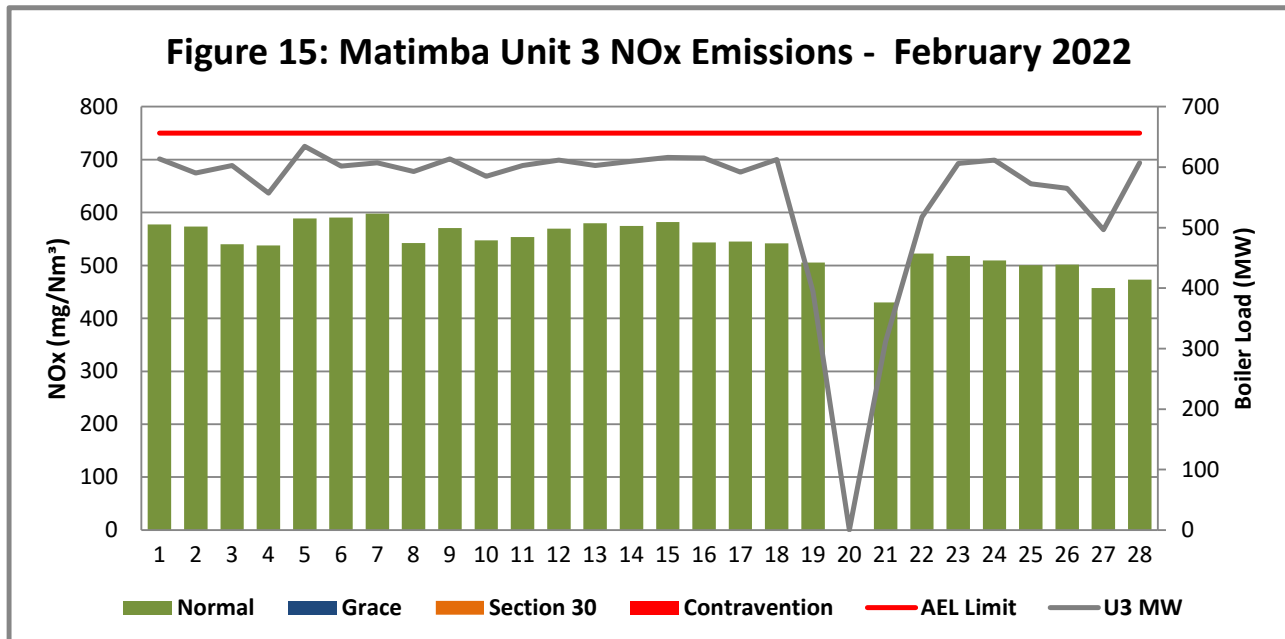
**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.

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Unit 3 NO<sub>x</sub> Emissions

**Figure 16: NO<sub>x</sub> daily average emissions against emission limit for unit 3 for the month of February 2022**

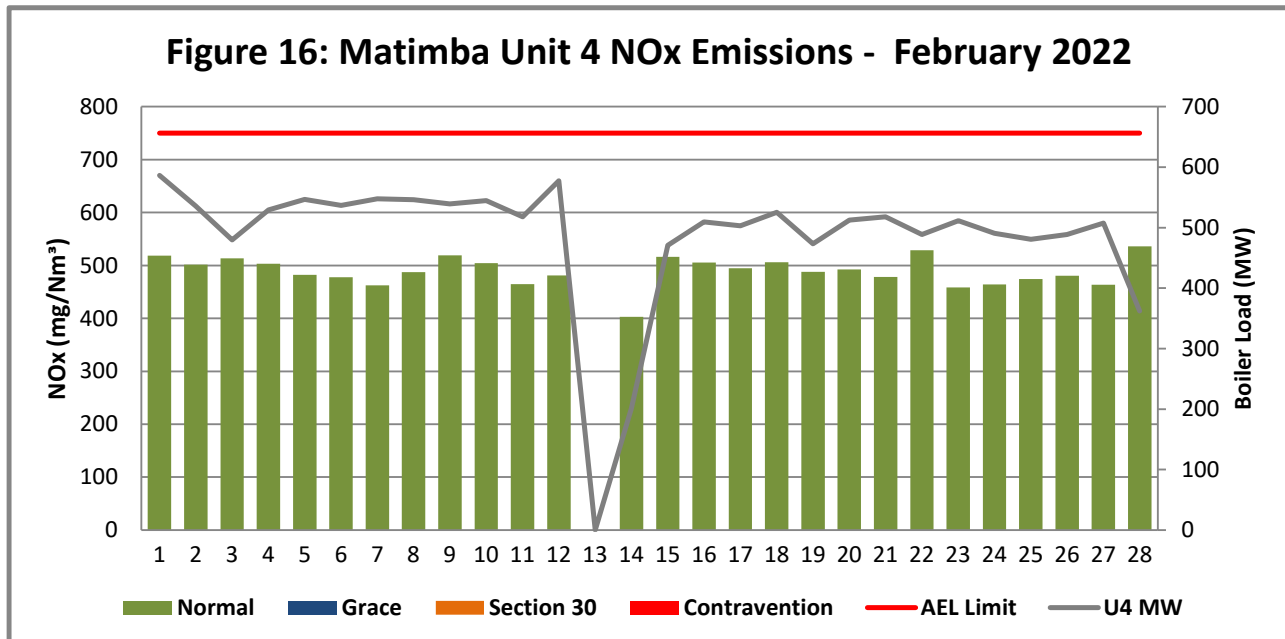
**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.

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Unit 4 NO<sub>x</sub> Emissions

**Figure 17: NO<sub>x</sub> daily average emissions against emission limit for unit 4 for the month of February 2022**

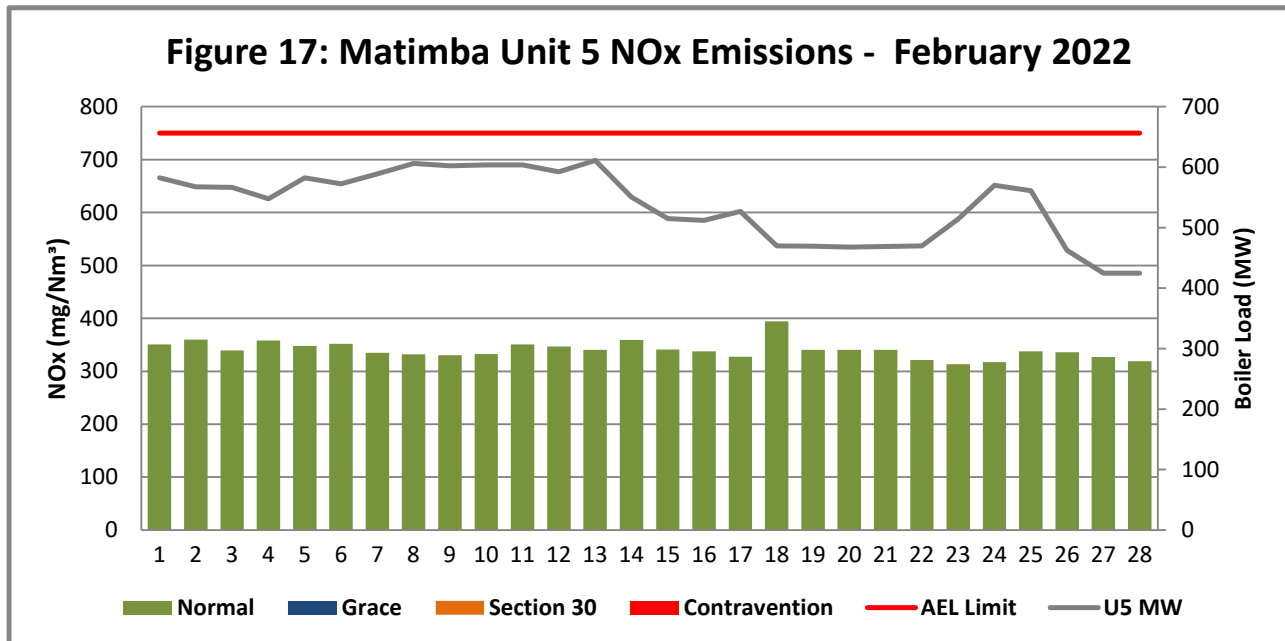
**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.

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Unit 5 NO<sub>x</sub> Emissions

**Figure 18: NO<sub>x</sub> daily average emissions against emission limit for unit 5 for the month of February 2022**

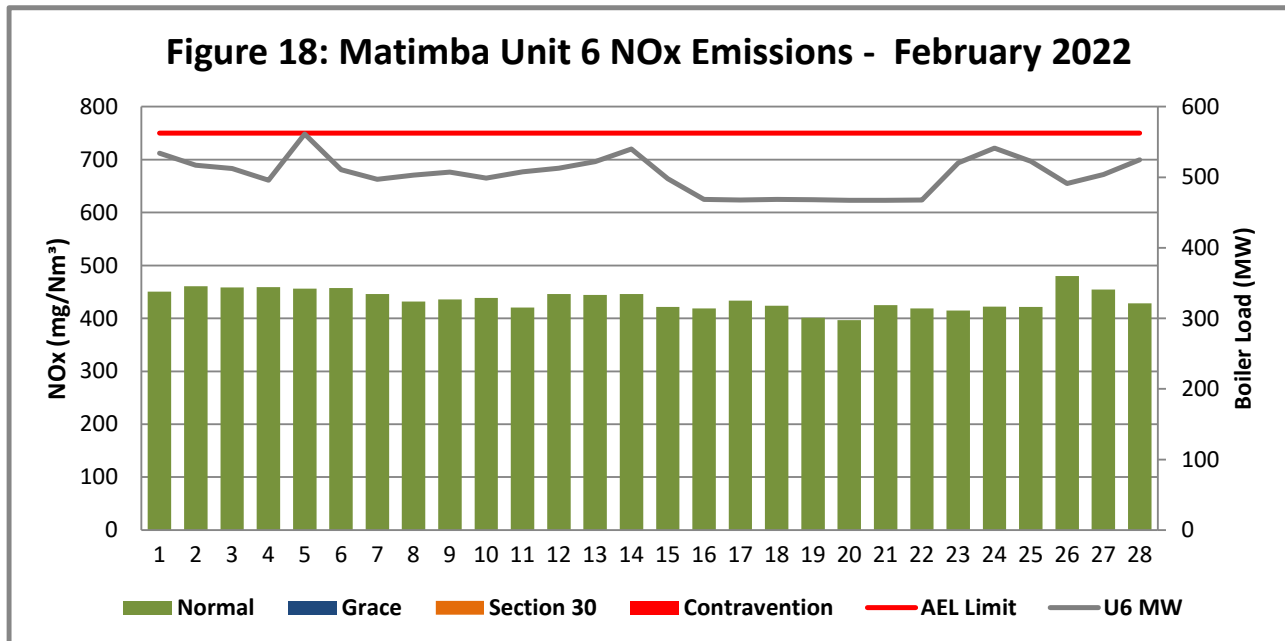
**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.

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Unit 6 NO<sub>x</sub> Emissions

**Figure 19: NO<sub>x</sub> daily average emissions against emission limit for unit 6 for the month of February 2022**

**Interpretation:**

All daily averages below NO<sub>x</sub> emission limit of 750 mg/Nm<sup>3</sup>.


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### 2.4.3 Total Volatile Organic Compounds

Table 4: Total volatile compound estimates

		
CALCULATION OF EMISSIONS OF TOTAL VOLATILE COMPOUNDS FROM FUEL OIL STORAGE TANKS*		
Date:	Friday, 18 March 2022	
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	
<p align="center"><b>MONTHLY INPUT DATA FOR THE STATION</b></p> <p align="center">Please only insert relevant monthly data inputs into the <u>blue cells</u> below</p> <p align="center">Choose from a dropdown menu in the <u>green cells</u></p> <p align="center">The total VOC emissions for the month are in the <u>red cells</u></p> <p align="center">IMPORTANT: Do not change <u>any</u> other cells without consulting the AQ CoE</p>		
MONTH:	February	
<b>GENERAL INFORMATION:</b>		
	<b>Data</b>	<b>Unit</b>
Total number of fuel oil tanks:	4	NA
Height of tank:	13,34	m
Diameter of tank:	9,53	m
Net fuel oil throughput for the month:	676,652	tons/month
Molecular weight of the fuel oil:	166,00	Lb/lb-mole
<b>METEOROLOGICAL DATA FOR THE MONTH</b>		
	<b>Data</b>	<b>Unit</b>
Daily average ambient temperature	26,20	°C
Daily maximum ambient temperature	32,94	°C
Daily minimum ambient temperature	20,71	°C
Daily ambient temperature range	12,24	°C
Daily total insolation factor	5,72	kWh/m <sup>2</sup> /day
Tank paint colour	Grey/medium	NA
Tank paint solar absorbance	0,68	NA
<b>FINAL OUTPUT:</b>		
	<b>Result</b>	<b>Unit</b>
Breathing losses:	0,57	kg/month
Working losses:	0,02	kg/month
<b>TOTAL LOSSES (Total TVOC Emissions for the month):</b>	<b>0,59</b>	<b>kg/month</b>
<p>*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.</p>		

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#### 2.4.4 Greenhouse gas (CO<sub>2</sub>) emissions

CO<sub>2</sub> 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.

### 2.5 Daily power generated

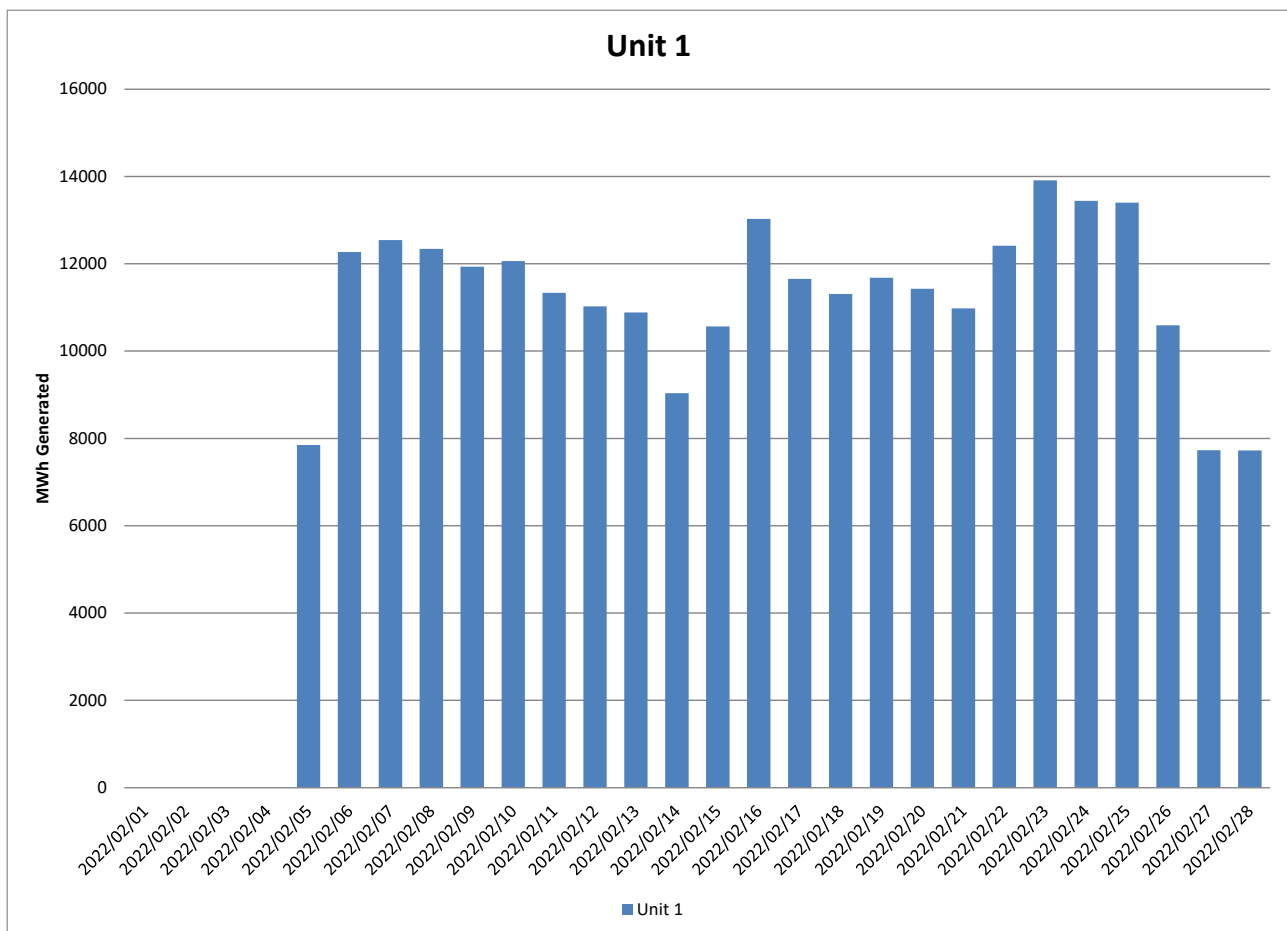
**Table 5:** Daily power generated per unit in MWh for the month of February 2022

Date	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
2022/02/01	0	6622	14659	13966	13866	12746
2022/02/02	0	13132	14106	12816	13497	12334
2022/02/03	0	13551	14392	11399	13515	12224
2022/02/04	0	12945	13295	12564	12971	11776
2022/02/05	7847	9511	15158	13072	13897	13376
2022/02/06	12268	8856	14383	12743	13580	12200
2022/02/07	12542	14109	14483	13024	14012	11829
2022/02/08	12339	14016	14157	13015	14415	11978
2022/02/09	11936	13605	14648	12830	14305	12088
2022/02/10	12063	14300	13978	12982	14355	11910
2022/02/11	11334	14135	14388	12353	14368	12097
2022/02/12	11025	14249	14609	6259	14091	12209
2022/02/13	10884	11531	14397	0	14520	12443
2022/02/14	9036	14017	14571	289,7	13141	12381
2022/02/15	10567	13403	14699	11169	12201	11831
2022/02/16	13027	14008	14698	12121	12230	11171
2022/02/17	11657	12852	14153	11964	12535	11147
2022/02/18	11308	14184	14657	12500	11188	11162
2022/02/19	11683	13870	646,3	11234	11176	11161
2022/02/20	11430	12700	0	12230	11129	11135
2022/02/21	10980	13146	2991	12302	11157	11132
2022/02/22	12415	13078	12317	11642	11187	11145
2022/02/23	13914	13829	14464	12149	12198	12390
2022/02/24	13441	13883	14630	11680	13572	12925
2022/02/25	13399	13390	13663	11406	13353	12451
2022/02/26	10589	12075	13537	11645	11041	11696
2022/02/27	7728	12165	11861	12101	10111	12029
2022/02/28	7723	13915	14448	1116	10103	12491

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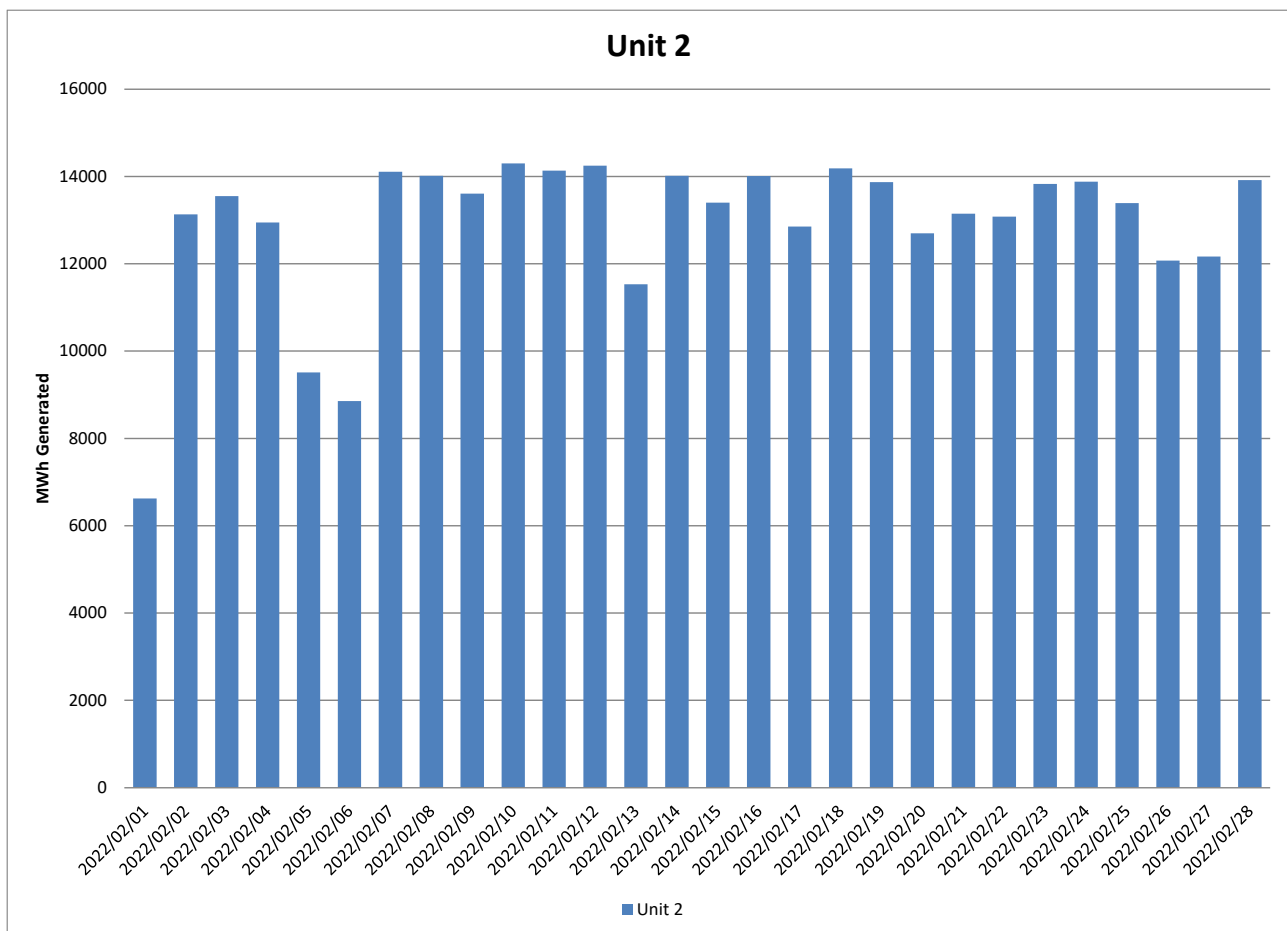


**Figure 20: Unit 1 daily generated power in MWh for the month of February 2022**

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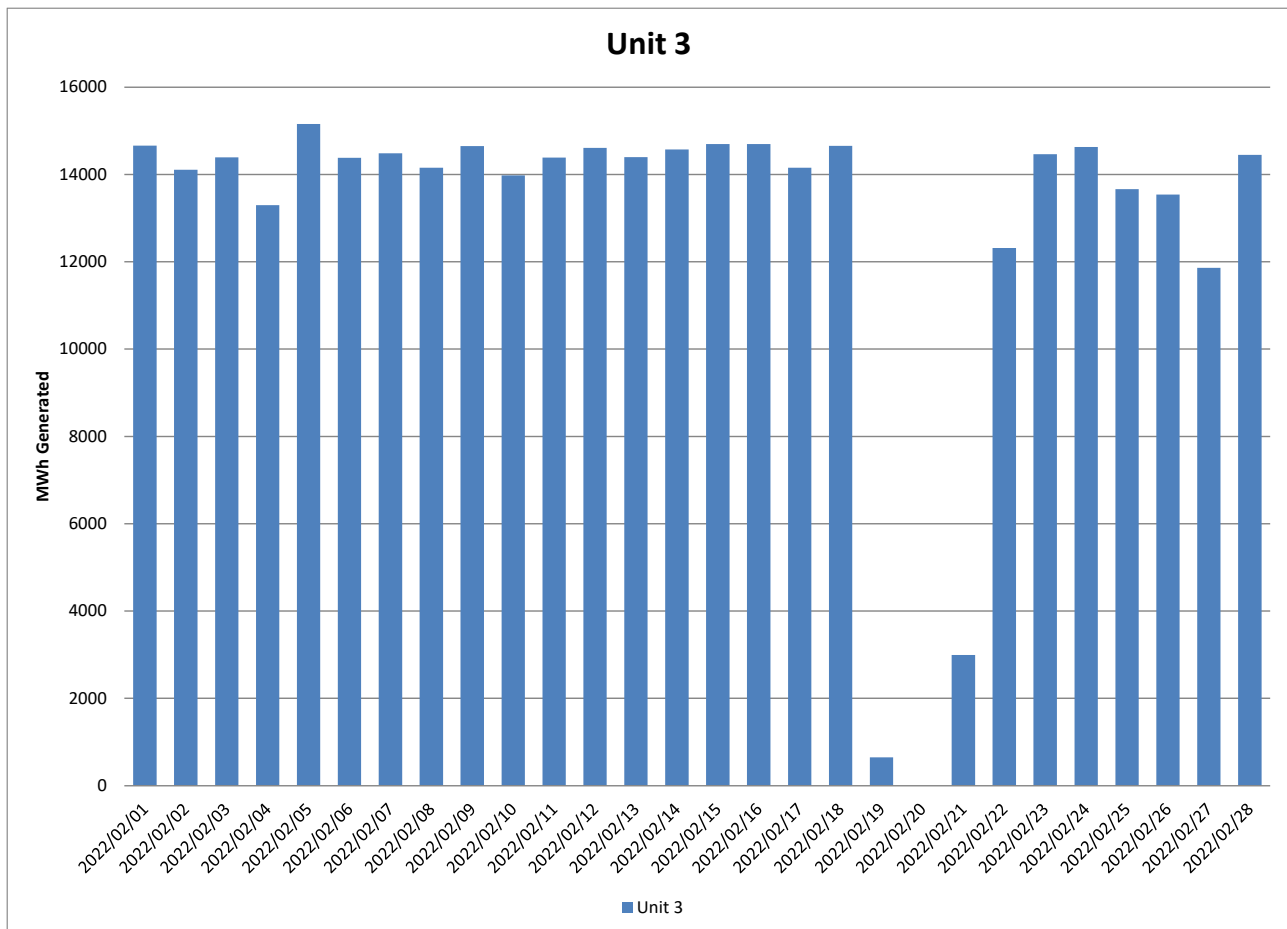


**Figure 21: Unit 2 daily generated power in MWh for the month of February 2022**

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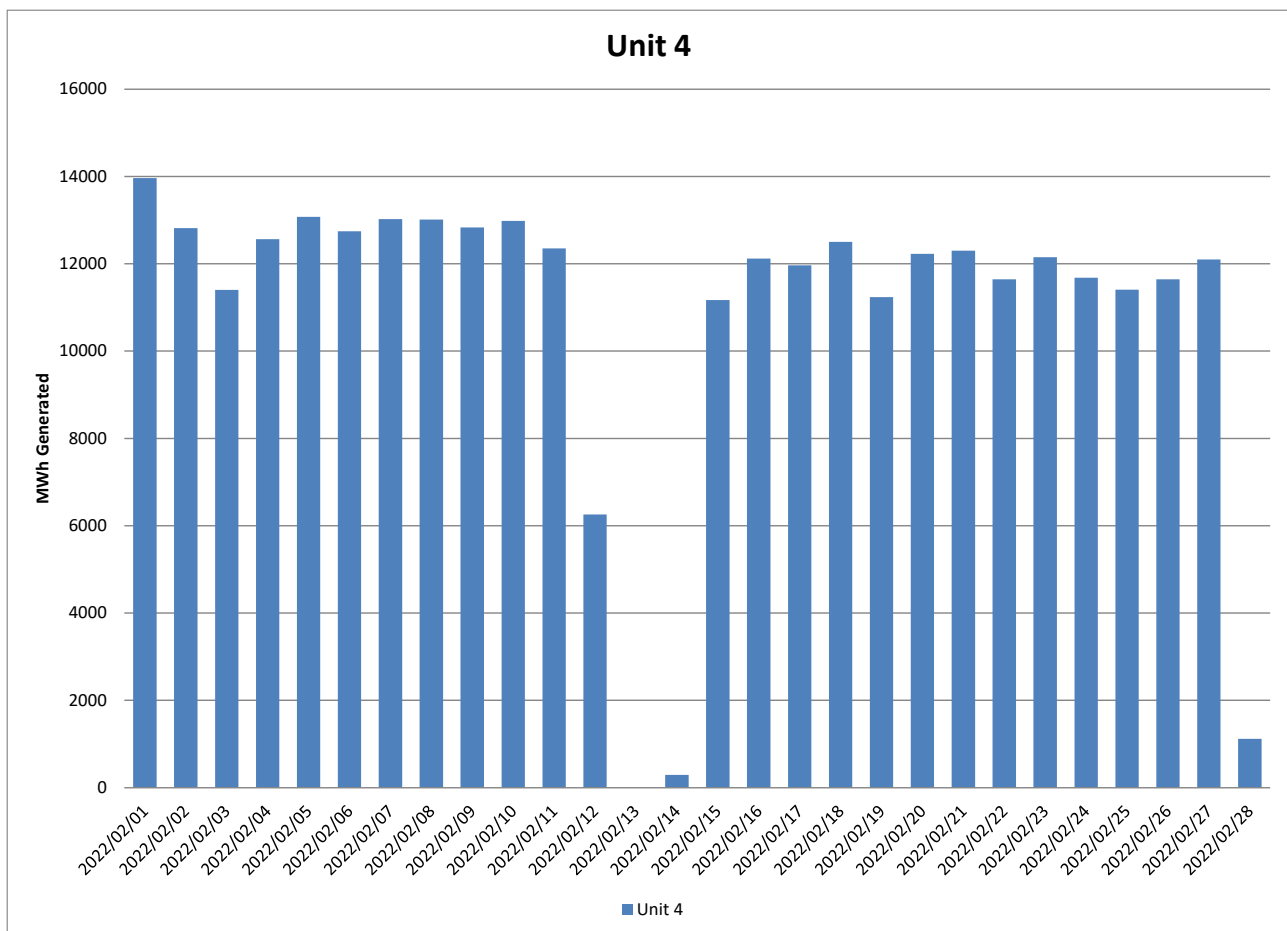


**Figure 22: Unit 3 daily generated power in MWh for the month of February 2022**

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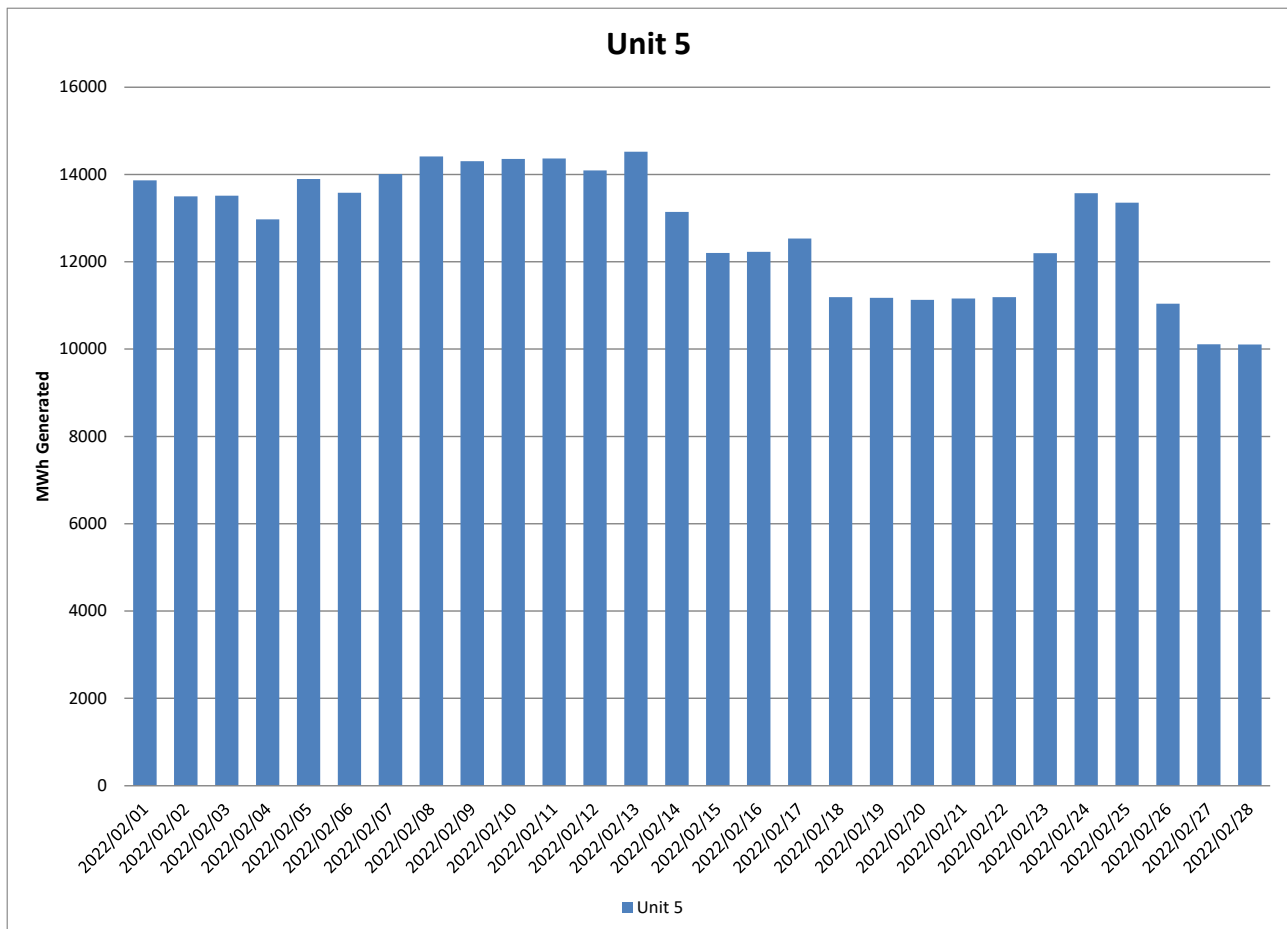


**Figure 23: Unit 4 daily generated power in MWh for the month of February 2022**

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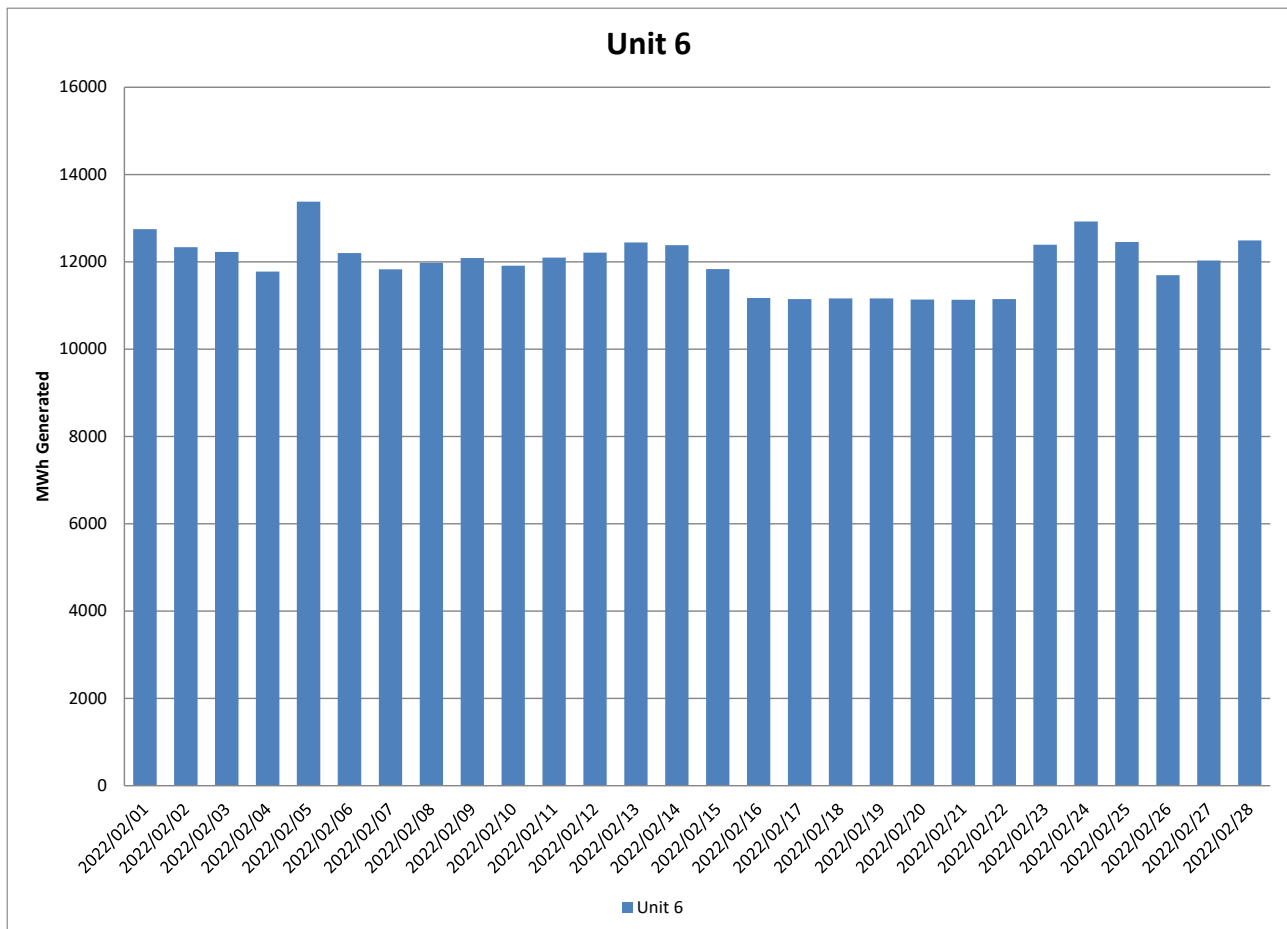


**Figure 24: Unit 5 daily generated power in MWh for the month of February 2022**

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**Figure 25: Unit 6 daily generated power in MWh for the month of February 2022**

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## 2.6 Pollutant Tonnages

The emitted pollutant tonnages for February 2022 are provided in table 6. Averaged Quality Assurance level 2 (QAL 2) values were used for CO<sub>2</sub> data for Unit 1. Averaged Quality Assurance level 2 (QAL 2) values were used for CO<sub>2</sub> and oxygen data for Unit 2. CO<sub>2</sub> Values for unit 4, unit 5 and unit 6 was calculated as per balance based on the O<sub>2</sub> values. These values were used due to the monitor providing unreliable values. Matimba is currently in the process of implementing recommended changes on this monitor to improve the reliability of the data.

**Table 6:** Pollutant tonnages for the month of February 2022

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)
Unit 1	60,6	3 239,8	476,1
Unit 2	60,7	6 041,3	1 135,4
Unit 3	54,0	5 443,9	1 005,6
Unit 4	56,2	4 136,6	806,3
Unit 5	86,7	3 704,5	623,8
Unit 6	74,7	5 317,7	839,9
<b>SUM</b>	392,8	27 883,8	4 887,0

## 2.7 Reference values

**Table 7:** Reference values for data provided, February 2022

Compound / Parameter	Units of Measure	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Oxygen	%	10,75	7,76	8,64	6,78	8,37	8,48
Moisture	%	4,90	5,58	5,62	3,68	5,18	3,33
Velocity	m/s	22,5	30,7	29,8	24,1	25,7	27,3
Temperature	°C	134,0	132,3	130,9	128,6	124,4	125,6
Pressure	mBar	933,2	828,6	913,4	879,3	939,3	921,3

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## 2.8 Continuous Emission Monitors

### 2.8.1 Reliability

CO<sub>2</sub> monitor reliability for units 1, 2, 4, 5 and 6 performed below the required 80% reliability as per the AEL. The monitors for these units were 100% available for February 2022 however the data received were removed and replaced with calculated values and averaged values due to values received from the monitors not being reliable.

Averaged Quality Assurance level 2 (QAL 2) values were used for CO<sub>2</sub> data for Unit 1. Averaged Quality Assurance level 2 (QAL 2) values were used for CO<sub>2</sub> and oxygen data for Unit 2. CO<sub>2</sub> Values for unit 4, unit 5 and unit 6 was calculated as per balance based on the O<sub>2</sub> values.

**Table 8:** Average percentage (%) availability of monitors for the month of February 2022.

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	CO <sub>2</sub>
Unit 1	100,0	100,0	98,7	0,0
Unit 2	99,8	100,0	100,0	0,0
Unit 3	100,0	100,0	100,0	100,0
Unit 4	100,0	100,0	100,0	0,0
Unit 5	98,1	85,6	85,7	0,0
Unit 6	98,1	100,0	100,0	0,0

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## **2.8.2 Changes, downtime and repairs**

### **Unit 1**

- No adjustments done on the CEMs. Calibration of gaseous analysers is done every second week.
- No downtime or repairs done on the particulate monitors

### **Unit 2**

- No adjustments done on the CEMs. Calibration of gaseous analysers is done every second week.
- No downtime or repairs done on the particulate monitors

### **Unit 3**

- No adjustments done on the CEMs. Calibration of gaseous analysers is done every second week.
- No downtime or repairs done on the particulate monitors

### **Unit 4**

- Unit 4 gaseous emission monitor was repaired on 21 February 2022.
- No downtime or repairs done on the particulate monitors

### **Unit 5**

- Unit 5 gaseous emission monitor was repaired on 21 February 2022.
- No downtime or repairs done on the particulate monitors

### **Unit 6**

- Unit 6 gaseous emission monitor was repaired on 21 February 2022.
- No downtime or repairs done on the particulate monitors

## **2.8.3 Sampling dates and times**

Continuous

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## 2.9 Units Start-up information

**Table 9:** Start-up information

<b>Unit</b>	1	
<b>Fires in</b>	2022/02/05	01H50
<b>Synchronization with Grid</b>	2022/02/05	06H20
<b>Emissions below limit</b>	2022/02/07	02H06
<b>Fires in to synchronization</b>	4,5	HOURS
<b>Synchronization to &lt; Emission limit</b>	43,77	HOURS

<b>Unit</b>	1	
<b>Fires in</b>	2022/02/15	02H21
<b>Synchronization with Grid</b>	2022/02/15	03H41
<b>Emissions below limit</b>	2022/02/15	09H35
<b>Fires in to synchronization</b>	1,33	HOURS
<b>Synchronization to &lt; Emission limit</b>	5,9	HOURS

<b>Unit</b>	2	
<b>Fires in</b>	2022/02/01	12H52
<b>Synchronization with Grid</b>	2022/02/01	15H12
<b>Emissions below limit</b>	2022/02/01	18H54
<b>Fires in to synchronization</b>	2,33	HOURS
<b>Synchronization to &lt; Emission limit</b>	3,7	HOURS

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<b>Unit</b>	2	
<b>Fires in</b>	2022/02/01	16H20
<b>Synchronization with Grid</b>	2022/02/01	16H20
<b>Emissions below limit</b>	2022/02/01	18H54
<b>Fires in to synchronization</b>	0	HOURS
<b>Synchronization to &lt; Emission limit</b>	2,57	HOURS

<b>Unit</b>	2	
<b>Fires in</b>	2022/02/06	04H51
<b>Synchronization with Grid</b>	2022/02/06	06H45
<b>Emissions below limit</b>	2022/02/06	07H14
<b>Fires in to synchronization</b>	1,9	HOURS
<b>Synchronization to &lt; Emission limit</b>	0,48	HOURS

<b>Unit</b>	3	
<b>Fires in</b>	2022/02/21	10H00
<b>Synchronization with Grid</b>	2022/02/21	14H08
<b>Emissions below limit</b>	2022/02/21	16H00
<b>Fires in to synchronization</b>	4,133	HOURS
<b>Synchronization to &lt; Emission limit</b>	1,87	HOURS

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<b>Unit</b>	4	
<b>Fires in</b>	2022/02/14	12H52
<b>Synchronization with Grid</b>	2022/02/14	22H16
<b>Emissions below limit</b>	2022/02/15	07H12
<b>Fires in to synchronization</b>	9,4	HOURS
<b>Synchronization to &lt; Emission limit</b>	8,93	HOURS

## 2.10 Emergency generation

**Table 10:** Emergency generation

	<b>Unit 1</b>	<b>Unit 2</b>	<b>Unit 3</b>	<b>Unit 4</b>	<b>Unit 5</b>	<b>Unit 6</b>
<b>Emergency Generation hours declared by national Control</b>	228	236	228	197	236	236
<b>Emergency Hours declared including hours after stand down</b>	239	247	239	208	247	247
<b>Days over the Limit during Emergency Generation</b>	6	1	1	3	5	7

Unit 1 exceeded the 50mg/Nm<sup>3</sup> limit during emergency generation 6 times in February 2022. Unit 2 and Unit 3 exceeded the 50mg/Nm<sup>3</sup> limit during emergency generation 1 time respectively in February 2022. Unit 4 exceeded the 50mg/Nm<sup>3</sup> limit during emergency generation 3 times in February 2022. Unit 5 exceeded the 50mg/Nm<sup>3</sup> limit during emergency generation 5 times in February 2022. Unit 6 exceeded the 50mg/Nm<sup>3</sup> limit during emergency generation 7 times in February 2022. Full details for exceedances are provided in section 2.4.1.

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## 2.11 Complaints register

**Table 11:** Complaints

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
Pieter Pieterse	Normal ash dump operations were altered as a result of ash disposal space constraints	Average fugitive dust fallout from March to December 2021 in direction of property where complaint originated from: 494 mg/m <sup>2</sup> /day	N/A	Acquire additional resources to manage dust suppression system.	Completed
				Connect additional dust suppression equipment (pipeline)	31 March 2022

## 2.12 Air quality improvements and social responsibility conducted

### 2.12.1 Air quality improvements

None

### 2.12.2 Social responsibility conducted

None

## 2.13 Ambient air quality monitoring

The ambient report for February 2022 is not available due to power failures that occurred at the monitoring station. The power failures were due to community members attempting to illegally connect to the electricity supply. The incident has been reported to the local municipality and the electricity supply has since been restored.

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## 2.14 Electrostatic precipitator and Sulphur plant status

### Unit 1

- 2 fields out of service, will be inspected next opportunity.
- No abnormalities on the SO3 plant. Preventative maintenance done during the month.

### Unit 2

- All precipitator fields in service.
- No abnormalities on the SO3 plant. Preventative maintenance done during the month.

### Unit 3

- All precipitator fields in service.
- Unit 3 Variable speed drive failed and was replaced.

### Unit 4

- 1 field out of service, will be inspected next opportunity.
- No abnormalities on the SO3 plant. Preventative maintenance done during the month.

### Unit 5

- All precipitator fields in service.
- No abnormalities on the SO3 plant. Preventative maintenance done during the month.

### Unit 6

- All precipitator fields in service.
- No abnormalities on the SO3 plant. Preventative maintenance done during the month.

### SO3 common plant

- No abnormalities on the sulphur storage plant.

## 2.15 General

Name and reference number of the monitoring method 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:
    - i. S23° 40' 14.8" E027° 36' 47.5" 175m from ground level and 75m from the top.

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- 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**

Feedback Marapong February 2022 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

Obakeng Mabotja



GENERAL MANAGER: MATIMBA POWER STATION

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