



**Generation**

Gert Sibande District Municipality  
Corner of Joubert & Oosthuise Streets  
Ermelo  
2350

**Date: 2025/12/16**

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**Total number of pages:**  
**10**

**Total number of Annexes:**

**GROOTVLEI POWER STATION**  
Atmospheric Emission License GPS/0015/2024/F04

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**BOILER ENGINEERING MANAGER**

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**2025/12/18**

**DATE**

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**ENGINEERING MANAGER**

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**2025/12/18**

**DATE**

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**ENVIRONMENTAL MANAGER**

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**2025/12/18**

**DATE**

**GROOTVLEI POWER STATION MONTHLY EMISSIONS REPORT**

Atmospheric Emission License GPS/0015/2024/F04


**1 RAW MATERIALS AND PRODUCTS**

Raw Materials and Products	Raw Material Type	Units	Max Permitted Consumption Rate	Consumption Rate Nov-2025
	Coal	Tons	650 000	64 194
	Fuel Oil	Tons	20 000	570.330
<hr/>				
Production Rates	Product / By-Product Name	Units	Max Production Capacity Permitted	Indicative Production Rate Nov-2025
	Energy	GWh	864.000	98.013
	Ash	Tons	300 000	14 293.835
	RE Ash	kg/MWh	not specified	0.015

Note: Max energy rate = AEL capacity [1,200 MW] × 24 hrs × days in month ÷ 1,000 (to convert to GWh).

## 2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	18-24 (MJ/kg)	21.700
Sulphur Content	%	< 1.46 (%)	0.606
Ash Content	%	24.7 to < 38.1 (%)	22.267

## 3 EMISSION LIMITS (mg/Nm<sup>3</sup>)

Associated Unit/Stack	Daily Limit		
	PM	SO <sub>2</sub>	NO <sub>x</sub>
North	100	3500	1100
South	100	3500	1100

## 4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	FFP Efficiency
North	Fabric Filter Plant (FFP)	99.989%
South	Fabric Filter Plant (FFP)	Off-line

Note: The FFP does not have a bypass mode; therefore, it operates at 100% utilization.

## 5 DATA RELIABILITY (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	O <sub>2</sub>
North	99.0	0.0	0.0	0.0
South	Off	Off	Off	Off

Note: NO<sub>x</sub> emissions are measured as NO in PPM. The final NO<sub>x</sub> value is expressed as total NO<sub>2</sub> equivalent.

## 6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for November 2025

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)
Unit 1	Off	Off	Off
Unit 2	0.3	231	88
Unit 3	1.1	407	155
Unit 4	Off	Off	Off
Unit 5	Off	Off	Off
Unit 6	Off	Off	Off
<b>SUM</b>	<b>1.43</b>	<b>638</b>	<b>243</b>

Table 6.2: PM AEL Daily Compliance - November 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Avg (mg/Nm <sup>3</sup> )
North	0	0	0	0	0	3.2
South	Off	Off	Off	Off	Off	Off
<b>SUM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 6.3: SO<sub>2</sub> AEL Daily Compliance - November 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Avg (mg/Nm <sup>3</sup> )
North	0	0	0	0	0	1 252.9
South	Off	Off	Off	Off	Off	Off
<b>SUM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

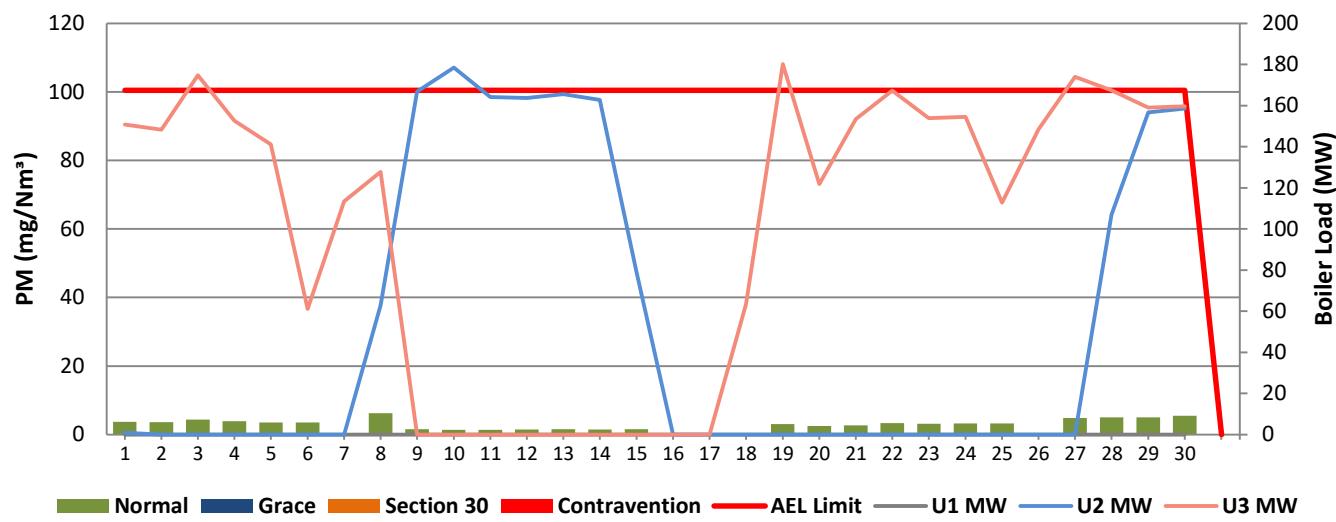
Table 6.4: NO<sub>x</sub> AEL Daily Compliance - November 2025

Associated Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Avg (mg/Nm <sup>3</sup> )
North	0	0	0	0	0	477.7
South	Off	Off	Off	Off	Off	Off
<b>SUM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

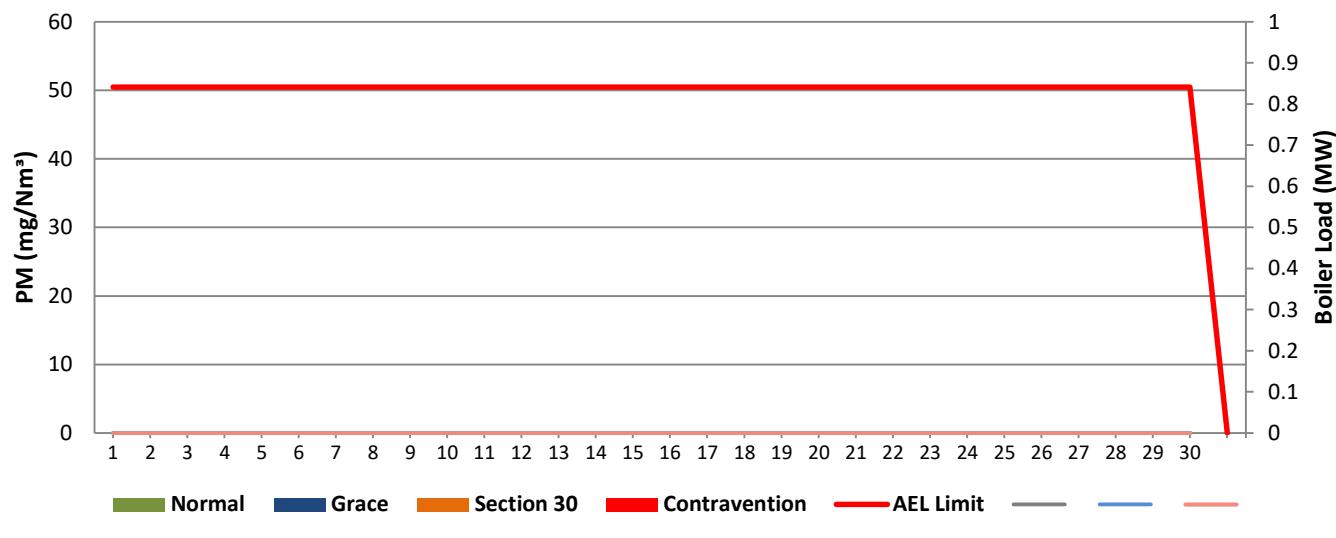
Table 6.5: Legend Description

Condition	Colour	Description
Normal	Green	Emissions below Emission Limit Value (ELV)
Grace	Blue	Emissions above the ELV during grace period
Section 30	Orange	Emissions above ELV during a NEMA S30 incident
Contravention	Red	Emissions above ELV but outside grace or S30 incident conditions

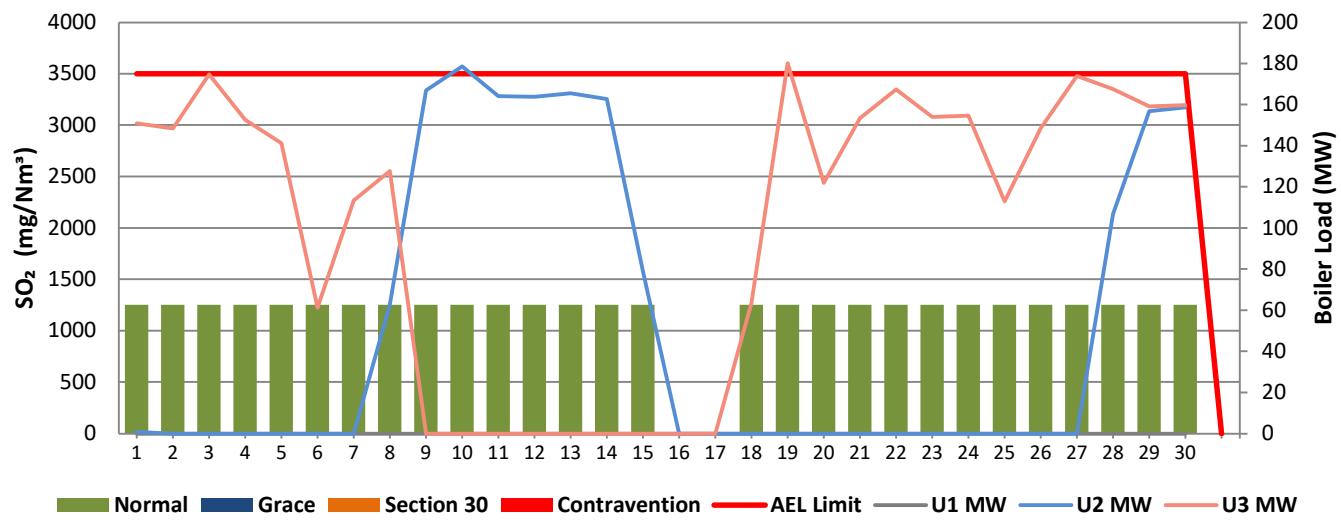
**Figure 1: Grootvlei North Stack PM Emissions - November 2025**



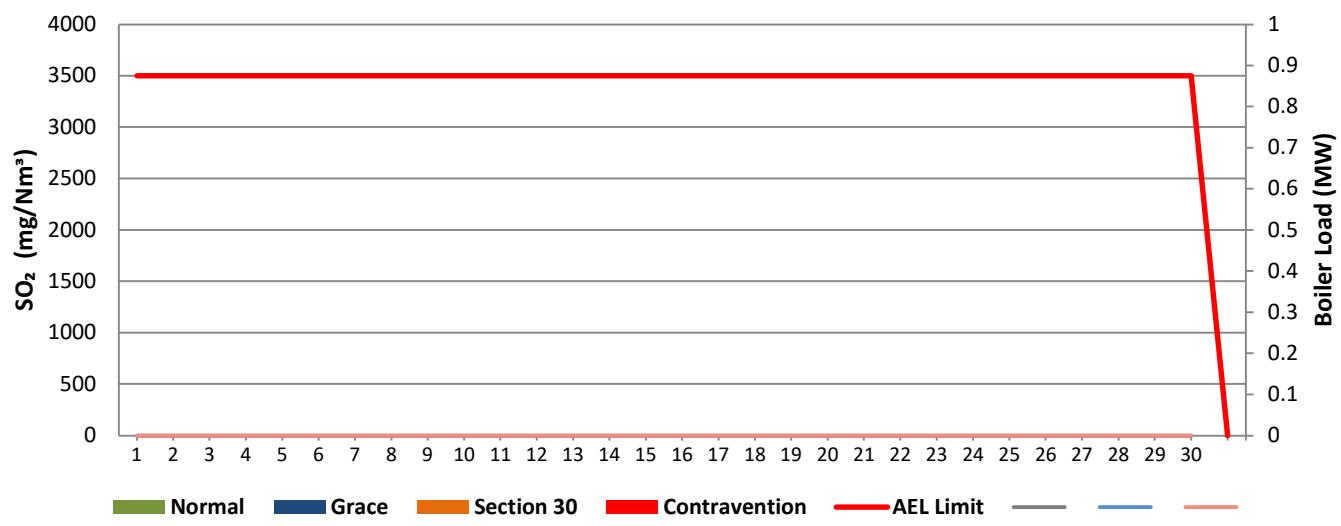
**Figure 2: Grootvlei South Stack PM Emissions - November 2025**



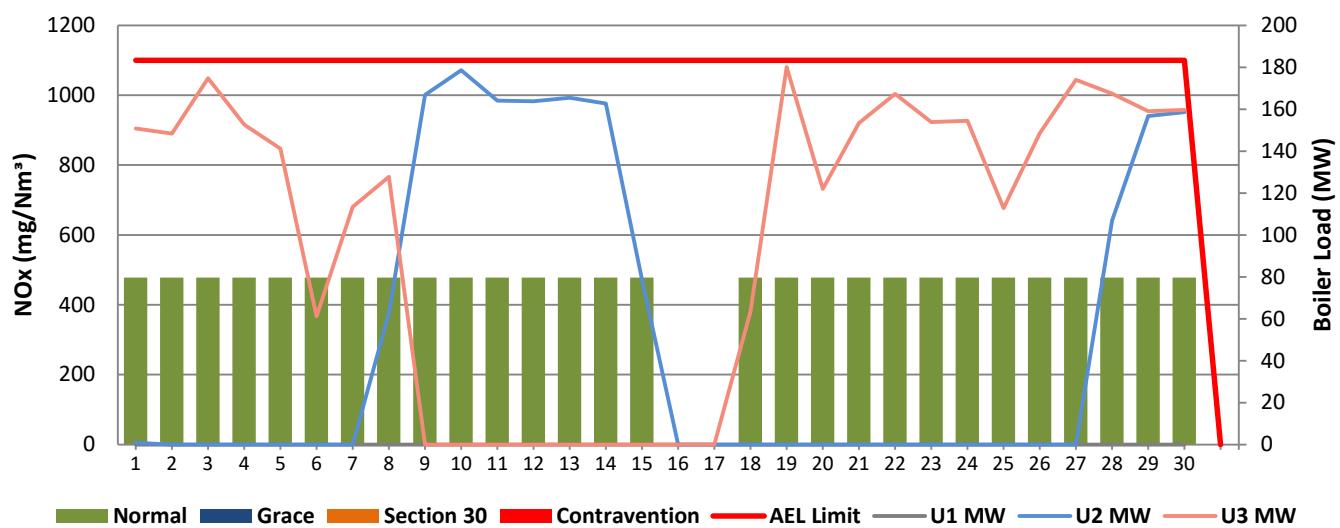
**Figure 3: Grootvlei North Stack SO<sub>2</sub> Emissions - November 2025**



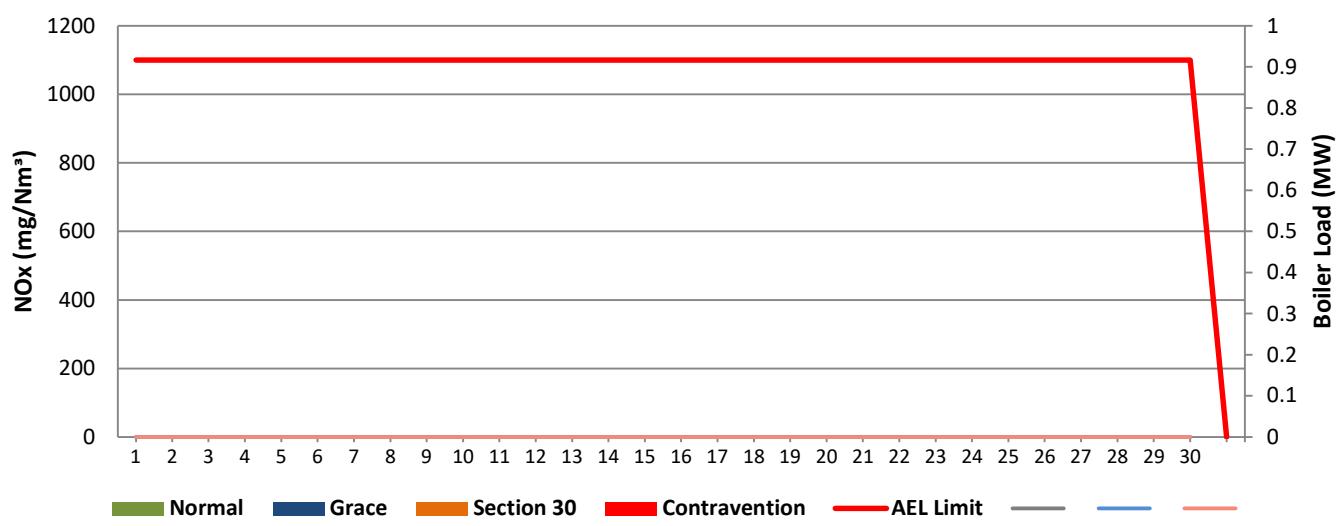
**Figure 4: Grootvlei South Stack SO<sub>2</sub> Emissions - November 2025**



**Figure 5: Grootvlei North Stack NO<sub>x</sub> Emissions - November 2025**



**Figure 6: Grootvlei South Stack NO<sub>x</sub> Emissions - November 2025**



## 7 COMPLAINTS

There were no complaints for this months

Source Code / Name	Root Cause Analysis	Calculation of Impacts / emissions associated with	Dispersion modeling of pollutants where	Measures implemented to prevent reoccurrence

## 8 GENERAL

South Stach is offline.

For gaseous reporting on the North Stack, surrogate values from the QAL2 report were used because the analyser is failing to provide continuous readings. The root cause has been identified as moisture in the compressed air supply, due to non-operational dryers on the station compressors.

A modification will be implemented on the compressed air supply line to the analyser, which will include installing drain valves at the lowest points and a filter upstream of the analyser. Gaseous monitor reliability for November 2025 is zero due to the use of surrogate values.

The correlation test has expired. Opacity calibration has now been completed; however, the correlation test will be scheduled next year as there are currently no units on load. The requirement is that at least two out of three units must be available and capable of operating at full load.

## ADDENDUM TO MONTHLY EMISSIONS REPORT

## 8 EMERGENCY GENERATION

Emergency Generation *[This is only required for stations that are requested to report on this information]*

Table 8. Emergency Generation per unit for the month of November 2025

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

## 9 COMPLAINTS REGISTER

Table 9. Complaints for the month of November 2025

Source Code / Name	Root Cause Analysis	Calculation of Impacts / emissions associated with the incident	Dispersion modeling of pollutants where applicable	Measures implemented to prevent reoccurrence	Date measure will be implemented
(Insert name of affected)	(Insert root cause for incident)	(Insert emissions associated with incident)	(Insert dispersion model information where applicable)	(Insert mitigation measures taken)	(Insert date of implementation of

## 10 S30 INCIDENT OR LEGAL CONTRAVENTION REGISTER

**To be completed in the case of a S30 incident or a legal contravention:**

  
Boiler Plant Engineering Manager

2025/12/18

Date

  
Environmental Practitioner

2025/12/18

Date

  
General Manager

2025/12/19

Date

Compiled by: Boiler Engineering Department

FFP System Engineer

For: Gert Sibande District Municipality

Air Quality Officer

Copies: Generation Environmental Management

D Herbst

B Mccourt

Generation Compliance Management  
Generation Asset Management

R Rampiar

E Patel

Grootvlei Power Station:

Engineering Manager  
Operating Manager  
Maintenance Manager  
Production Manager  
Boiler Engineering Manager  
System Engineer  
Environmental Manager