

The Municipal Manager
Gert Sibande District Municipality
PO Box 1748
ERMELO
2350

Date: 14 May 2025

Enquiries: X. Jila

Tel +27 17 749 5100

E-mail: records@gsibande.gov.za

Email: BulelwaS@gsibande.gov.za

Dear Ms Mthembu

TUTUKA POWER STATION REVISED MONTHLY REPORT FOR FEBRUARY 2025

This serves as the monthly report required in terms of Section 7.4 of Tutuka Power Station's Atmospheric Emission License (16/4/Lekwa/Eskom H SOC Ltd TPS/0013/2019/f03). The report includes verified emissions for Particulate Matters, Sulphur, and Nitrogen dioxides for the month of February 2025

The report outlines the monthly trends for each monitored pollutant. In February 2025, the Station operated with four units online (units 2, 3, 4, and 5), while units 1 and 6 remained offline.

During this period, unit 3 exceeded the PM limit beyond the 48-hour grace period permitted for start-ups, maintenance, and shutdowns. Additionally, there was one NOx exceedance recorded in unit 2, which remained within the allowable grace period.

1. RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Max. Permitted	Actual Consumption Feb-2025
	Coal	Tons	1 200 000	433 660
	Fuel Oil	Tons	10 000	4590.85
Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Indicative Production Rate Feb-2025
	Energy	GWh	2 359	777.4
	Ash	Tons	350 000	106 941
	RE Ash	kg/MWh	not specified	1.14

Note: Maximum energy rate is as per the maximum capacity stated in the AEL: [3 510 MW] x 24 hrs x days in Month/1000 to convert to GWh



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2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristics	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	16-24	21.830
Sulphur Content	%	0.6 TO 2.6	1.190
Ash Content	%	21 TO 33	24.660

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO _x
Unit 1	300	3400	1200
Unit 2	300	3400	1200
Unit 3	300	3400	1200
Unit 4	300	3400	1200
Unit 5	300	3400	1200
Unit 6	300	3400	1200

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Feb-2025
Unit 1	Electrostatic Precipitators (ESP)	Unit Off
Unit 2	Electrostatic Precipitators (ESP)	99.2%
Unit 3	Electrostatic Precipitators (ESP)	98.9%
Unit 4	Electrostatic Precipitators (ESP)	99.4%
Unit 5	Electrostatic Precipitators (ESP)	99.4%
Unit 6	Electrostatic Precipitators (ESP)	Unit Off

Note: The ESP does not have bypass mode operating, hence plant considered 100% Utilised.

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	Off	Off	Off	Off
Unit 2	99.7	0.0	0.0	0.0
Unit 3	99.8	0.0	0.0	0.0
Unit 4	99.2	0.0	0.0	0.0
Unit 5	100.0	0.0	0.0	0.0
Unit 6	Off	Off	Off	Off

Note: Monitor reliability for gases was poor, due to stack lifts not working, hence no maintenance was conducted during the month of February. Maintenance activities had however resumed on the 5th of March 2025.

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6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of February-2025

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	Exempt	0	0
Unit 2	182.7	1 886	898
Unit 3	274.5	1 333	793
Unit 4	185.8	2 449	1 118
Unit 5	244.8	3 215	1 619
Unit 6	Off	Off	Off
SUM	887.9	8 882	4 428

Table 6.2: Operating days in compliance to PM AEL Limit - February 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
Unit 1	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
Unit 2	24	1	0	0	1	224.0
Unit 3	3	4	0	3	7	330.6
Unit 4	22	0	0	0	0	145.2
Unit 5	19	0	0	0	0	176.1
Unit 6	Off	Off	Off	Off	Off	Off
SUM	68	5	0	3	8	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - February 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
Unit 1	0	0	0	0	0	
Unit 2	27	0	0	0	0	2 275.2
Unit 3	15	0	0	0	0	1 595.6
Unit 4	24	0	0	0	0	1 942.3
Unit 5	23	0	0	0	0	2 316.4
Unit 6	Off	Off	Off	Off	Off	Off
SUM	89	0	0	0	0	

Table 6.4: Operating days in compliance to NO_x AEL Limit - February 2025

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
Unit 1	0	0	0	0	0	
Unit 2	26	1	0	0	1	1 104.2
Unit 3	15	0	0	0	0	968.8
Unit 4	24	0	0	0	0	886.4
Unit 5	23	0	0	0	0	1 167.9
Unit 6	Off	Off	Off	Off	Off	Off
SUM	88	1	0	0	1	

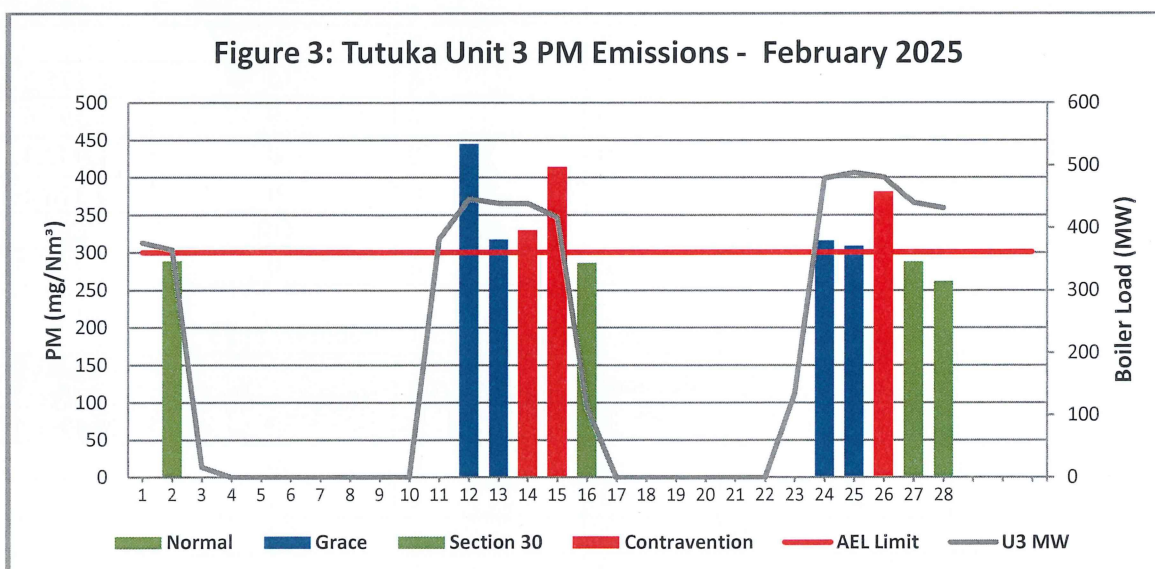
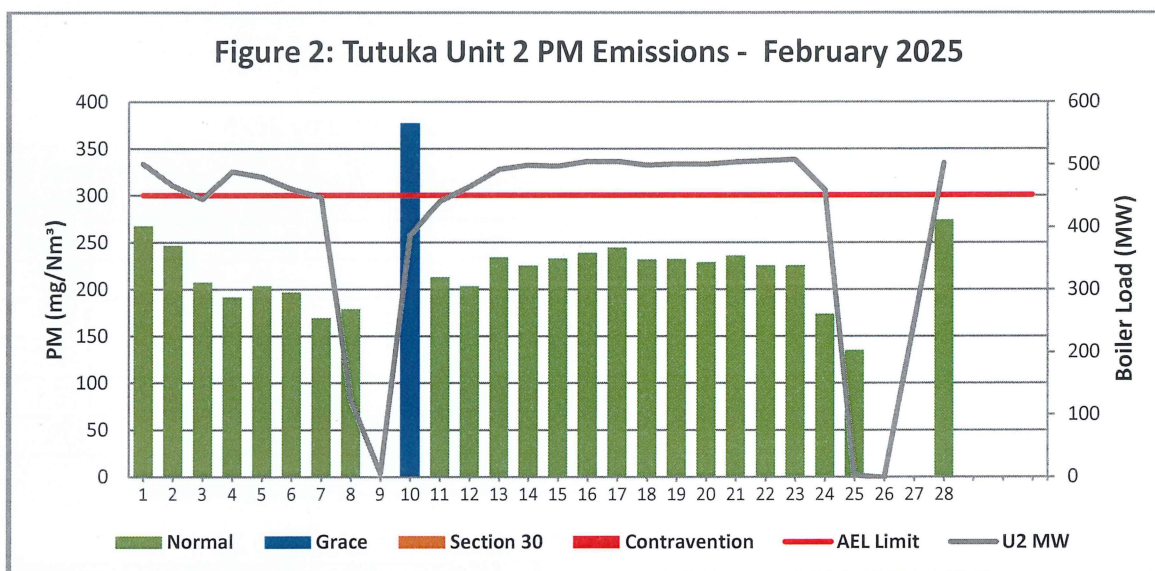
Note: NO_x emissions are measured as NO in PPM. Final NO_x value is expressed as total NO₂

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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

6.5.1 DUST (PM) EMISSIONS



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Figure 4: Tutuka Unit 4 PM Emissions - February 2025

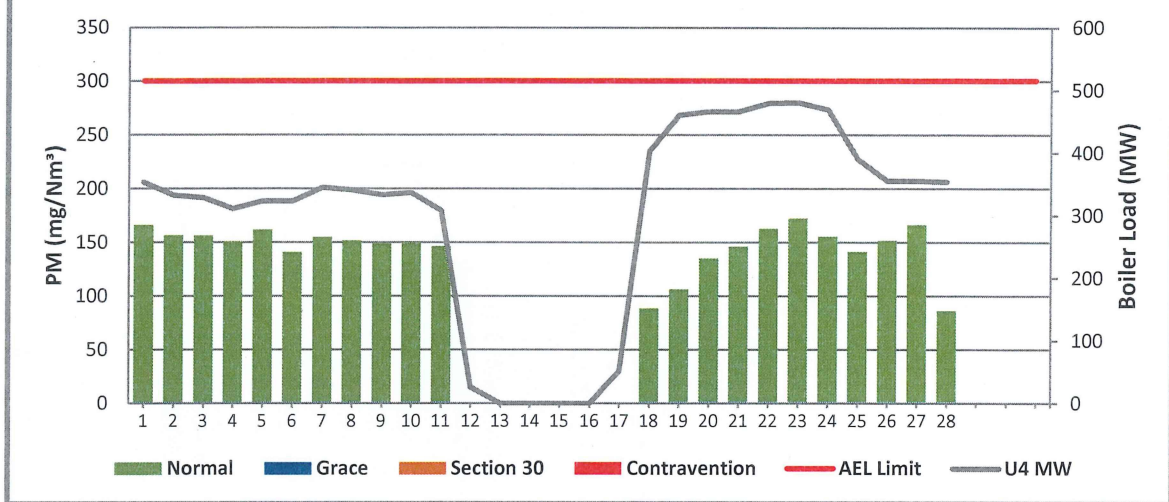
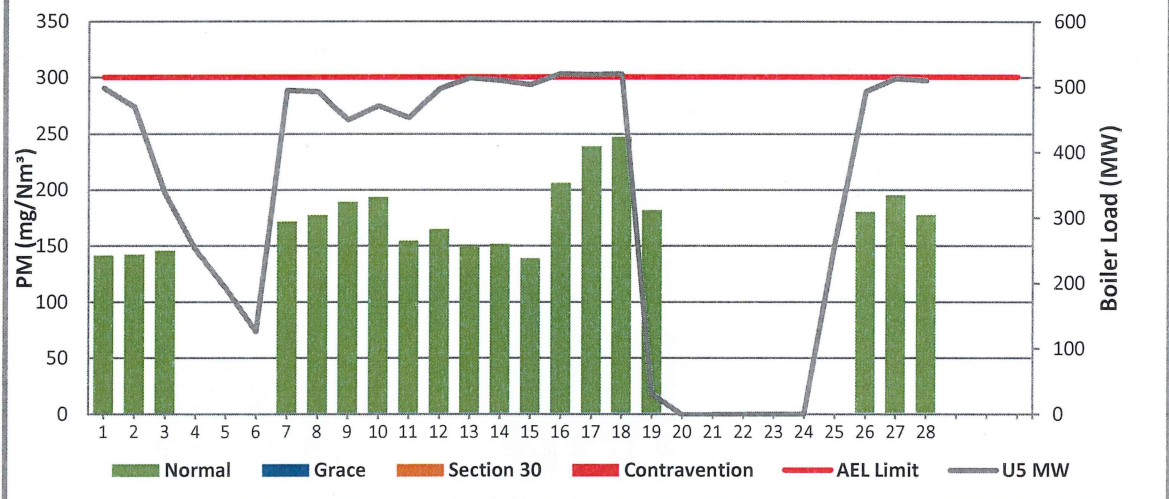


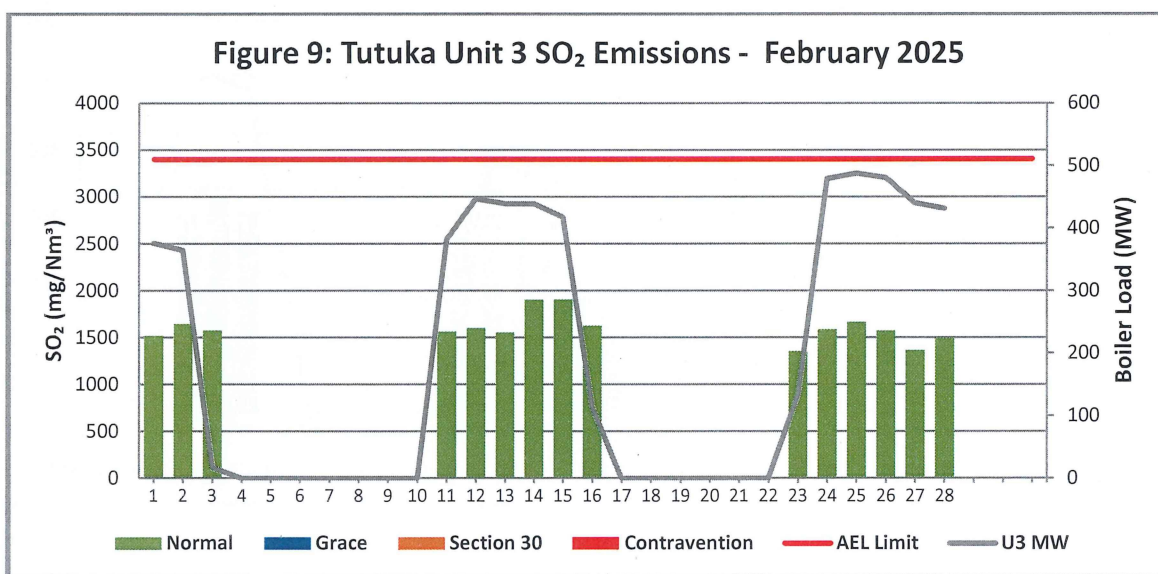
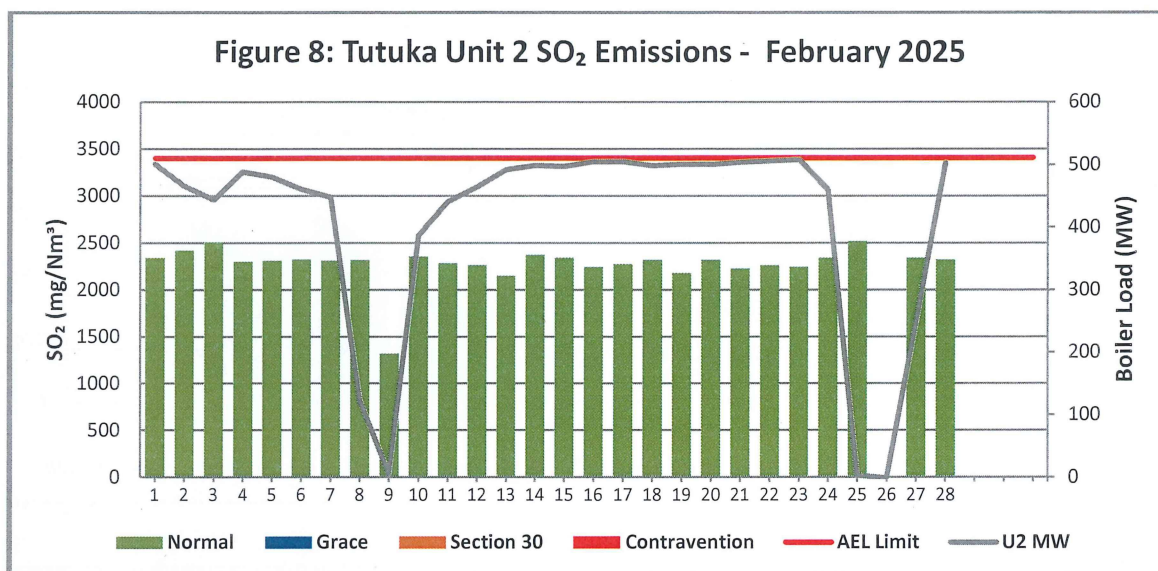
Figure 5: Tutuka Unit 5 PM Emissions - February 2025



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6.5.2 SULPHUR DIOXIDE (SO₂)



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Figure 10: Tutuka Unit 4 SO₂ Emissions - February 2025

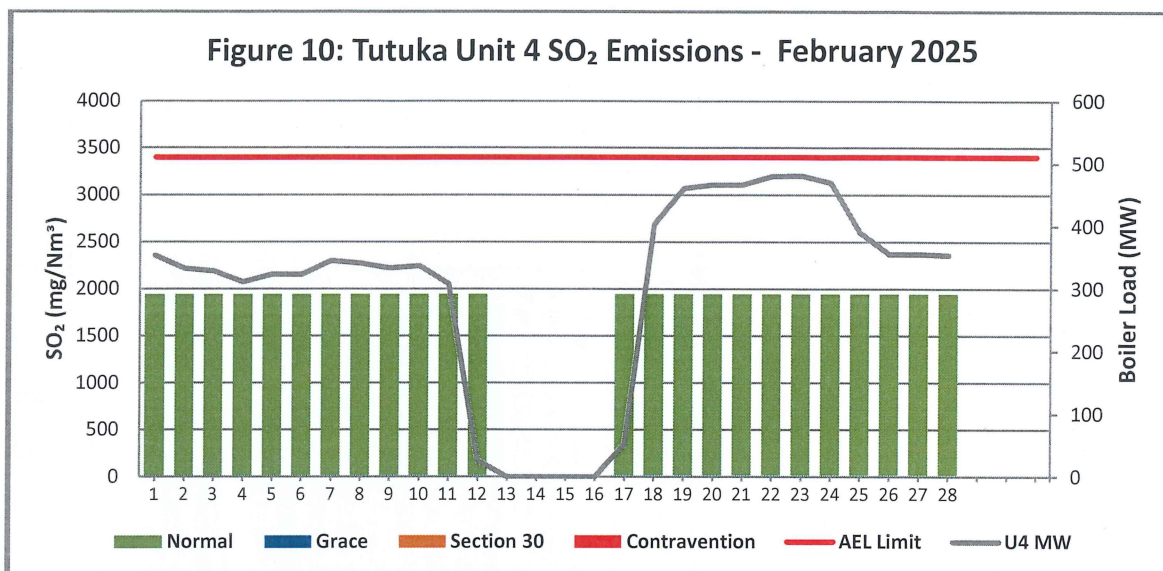
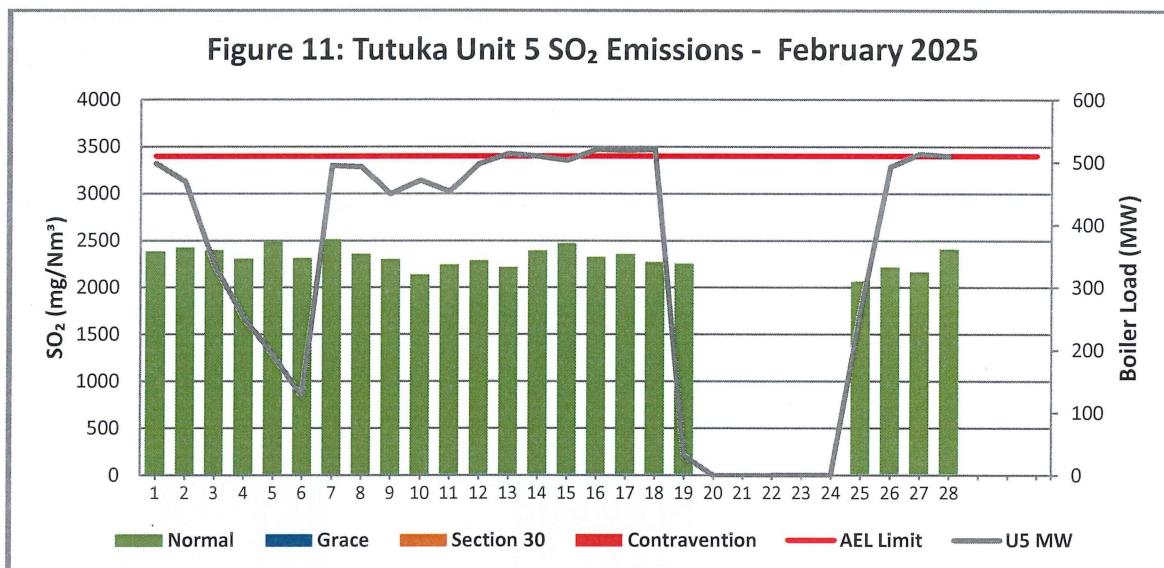


Figure 11: Tutuka Unit 5 SO₂ Emissions - February 2025



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6.5.3 NITROGEN OXIDES (NO_x)

Figure 14: Tutuka Unit 2 NO_x Emissions - February 2025

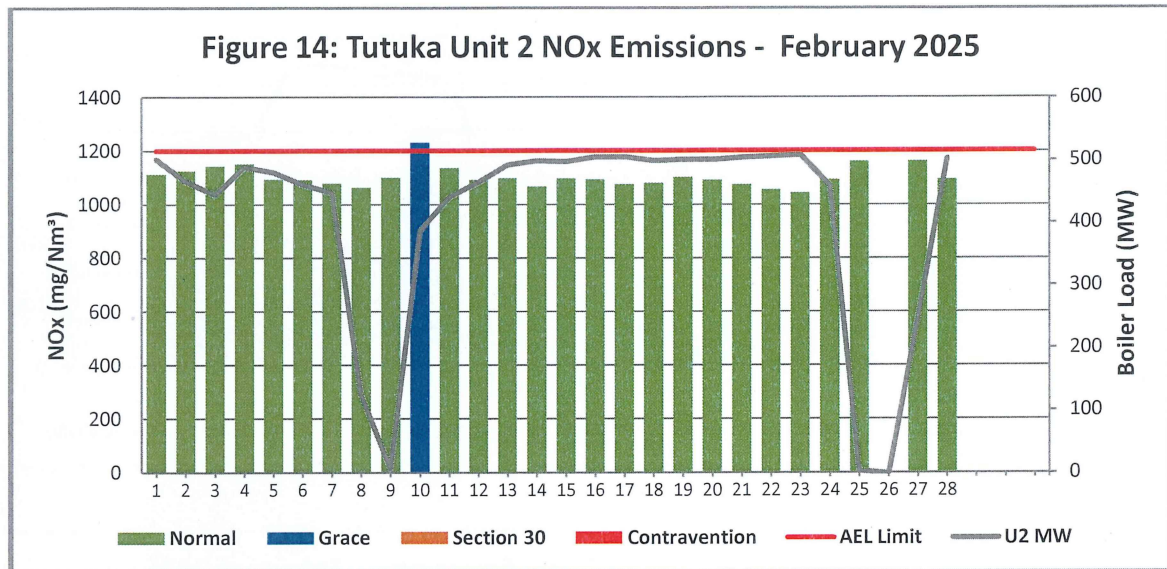
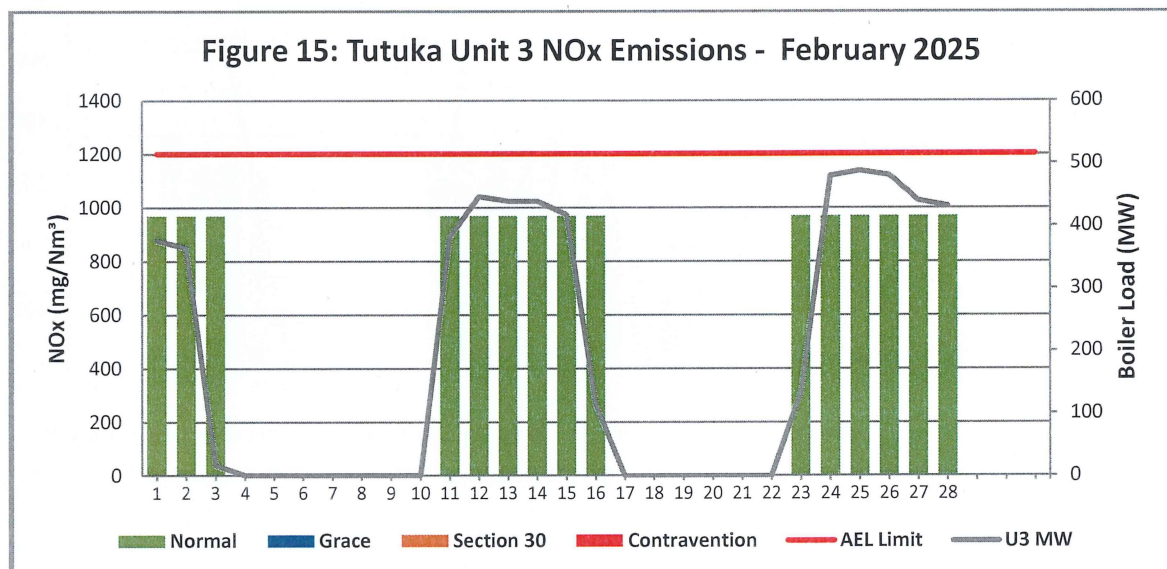


Figure 15: Tutuka Unit 3 NO_x Emissions - February 2025



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Figure 16: Tutuka Unit 4 NOx Emissions - February 2025

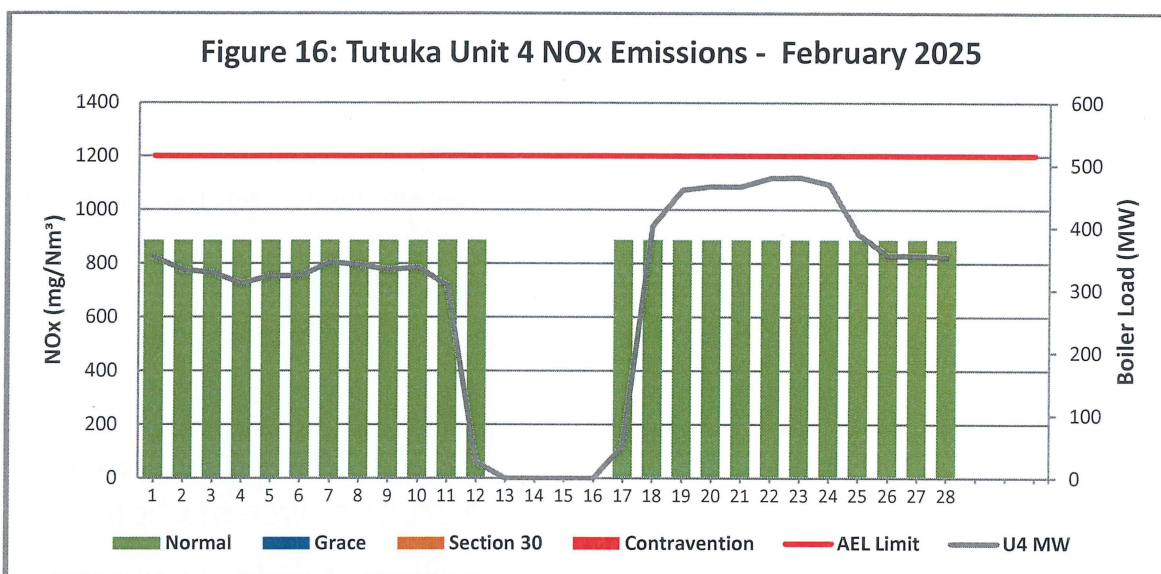
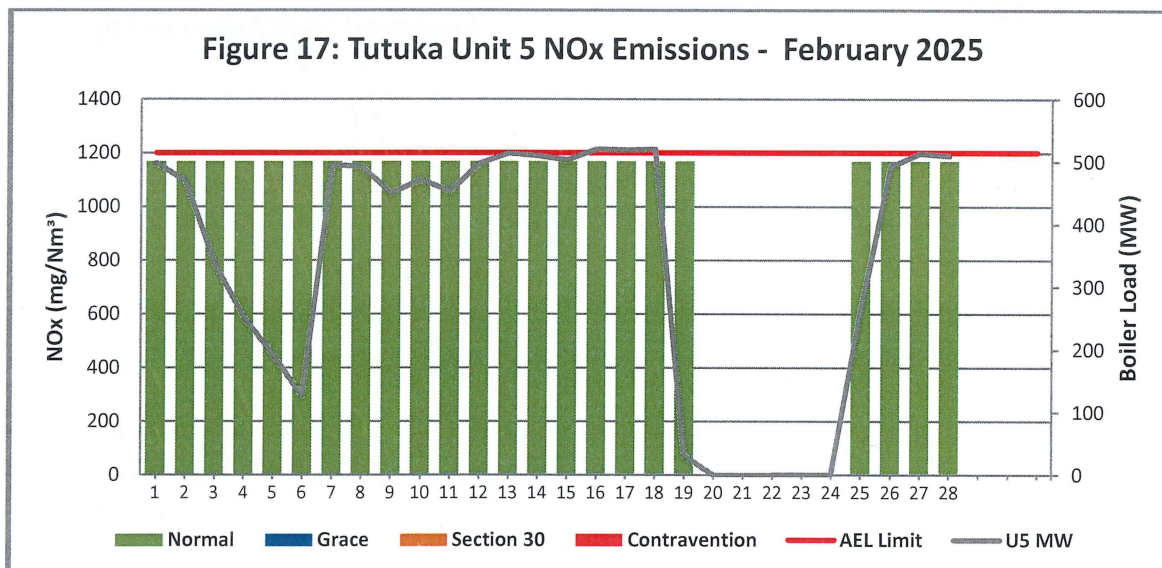


Figure 17: Tutuka Unit 5 NOx Emissions - February 2025



7. COMPLAINTS REGISTER

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

TUTUKA POWER STATION MONTHLY REPORT FOR FEBRUARY 2025

Yours Sincerely

Compiled by:

Muswubi

Tshifiwa Muswubi
Environmental Officer:
TUTUKA POWER STATION
Date: 2025/05/19

Recommended/Not Recommended

Jila

Xoli Jila
Acting Environmental Manager:
TUTUKA POWER STATION
Date: 2025/05/19

Supported / Not Supported by:

Molepo

Mike Molepo
Senior Technologist
TUTUKA POWER STATION
Date:

Approved / Not Approved by:

Moyo

Bruce Moyo
General Manager:
TUTUKA POWER STATION
Date: 2025/05/19