

The Municipal Manager
Gert Sibande District Municipality
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Date: 17 September 2025

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Dear Ms Mthembu

TUTUKA POWER STATION MONTHLY REPORT FOR AUGUST 2025

This serves as the monthly report required in terms of Section 7.4 of Tutuka Power Station's Atmospheric Emission License (13/19/1/Lekwa/Eskom H SOC Ltd TPS/0013/2025/f04). The report includes verified emissions for Particulate Matters, Sulphur, and Nitrogen dioxides for the month of August 2025.

The report presents monthly trends for each monitored pollutant. The Station had 5-units onload for the month of August 2025, units 1, 2, 3, 4 and 5. Unit 1 was available for 28 days, Unit 2 was available for 27 days, Unit 3 was available for 24 days, unit 4 was available for 20 days, Unit 5 was available for 26 days and unit 6 was offload.

The exceeded the PM limit in unit 3, however, exceedances fell within the 48-hour grace period allowed for start-ups, maintenance and shutdowns.

1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Max. Permitted	Actual Consumption Aug-2025
	Coal	Tons	1 200 000	639 057
	Fuel Oil	Tons	10 000	7480.660
Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Indicative Production Rate Aug-2025
	Energy	GWh	2 611	1 197.009
	Ash	Tons	770 000	152 734.606
	RE Ash	kg/MWh	not specified	1.031

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

2 ENERGY SOURCE CHARACTERISTICS

Generation
Tutuka Power Station
Standerton/Bethal Road
Private Bag X2016 Standerton 2430 SA
Tel +27 17 749 9237 www.eskom.co.za
Eskom Holdings SOC Ltd Reg No 2002/015527/30



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Coal Characteristics	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	16-24	21.990
Sulphur Content	%	0.6 TO 2.6	1.000
Ash Content	%	21 TO 33	23.900

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM Daily	SO ₂	NO _x	PM Monthly
Unit 1	300	3000	1100	200
Unit 2	300	3000	1100	200
Unit 3	300	3000	1100	200
Unit 4	300	3000	1100	200
Unit 5	300	3000	1100	200
Unit 6	300	3000	1100	200

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Aug-2025
Unit 1	Electrostatic Precipitators (ESP)	99.535%
Unit 2	Electrostatic Precipitators (ESP)	99.426%
Unit 3	Electrostatic Precipitators (ESP)	98.269%
Unit 4	Electrostatic Precipitators (ESP)	99.297%
Unit 5	Electrostatic Precipitators (ESP)	98.801%
Unit 6	Electrostatic Precipitators (ESP)	Off-line

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

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	100.0	89.6	96.4	96.4
Unit 2	100.0	89.6	97.1	94.6
Unit 3	99.7	98.8	98.8	98.8
Unit 4	100.0	92.8	93.1	93.1
Unit 5	100.0	94.3	94.3	94.3
Unit 6	Off	Off	Off	Off

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6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	157.1	2 892	1 413
Unit 2	162.7	1 070	622
Unit 3	439.3	3 263	1 458
Unit 4	175.8	2 675	1 361
Unit 5	299.6	3 576	1 901
Unit 6	Off	Off	Off
SUM	1 234.40	13 475	6 756

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

Associate d Unit/Stack	Normal	Grace	Section 30	NC	Total Exceedance	Mnth Limit Value	Mnth Avg (mg/N m³)
Unit 1	28	0	0	0	0	200	109.5
Unit 2	25	0	0	0	0	200	222.8
Unit 3	19	5	0	0	5	200	251.1
Unit 4	20	0	0	0	0	200	141.0
Unit 5	26	0	0	0	0	200	158.4
Unit 6	Off	Off	Off	Off	Off	200	Off
SUM	118	5	0	0	5		

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm³)
Unit 1	29	0	0	0	0	1 902.6
Unit 2	27	0	0	0	0	1 311.1
Unit 3	25	0	0	0	0	1 770.0
Unit 4	22	0	0	0	0	1 952.6
Unit 5	28	0	0	0	0	1 804.0
Unit 6	Off	Off	Off	Off	Off	Off
SUM	131	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven tion	Total Exceedance	Average NO _x (mg/Nm³)
Unit 1	29	0	0	0	0	917.9
Unit 2	27	0	0	0	0	752.0
Unit 3	25	0	0	0	0	789.1
Unit 4	22	0	0	0	0	982.1
Unit 5	28	0	0	0	0	951.4
Unit 6	Off	Off	Off	Off	Off	Off

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SUM	131	0	0	0	0
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Note: NOx emission is measured as NO in PPM. Final NOx value is expressed as total NO₂

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: Tutuka Unit 1 PM Emissions - August 2025

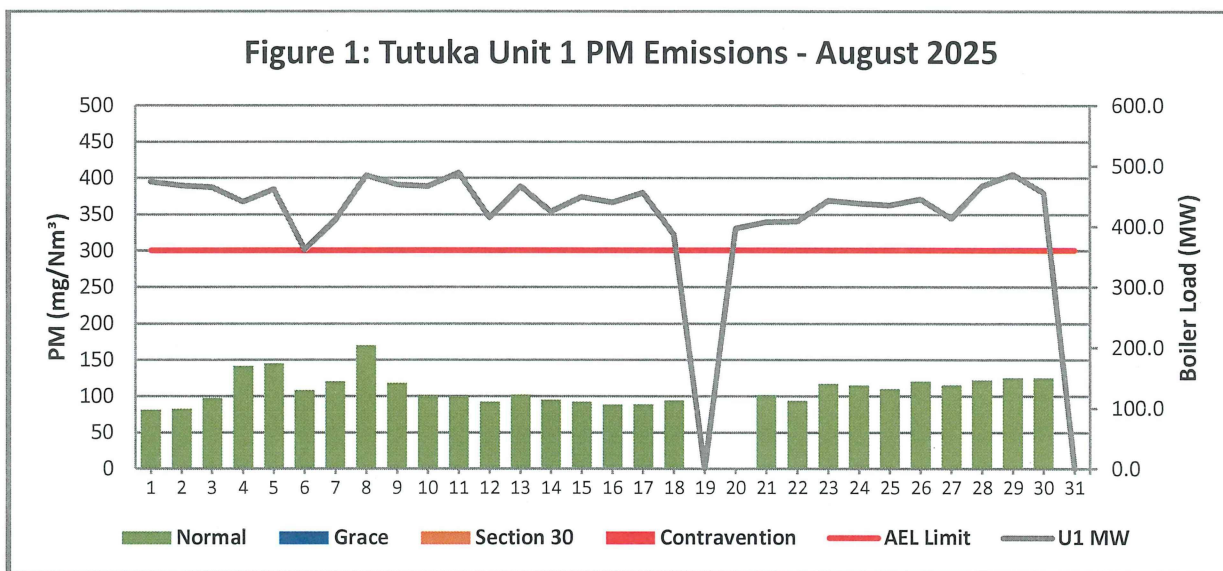
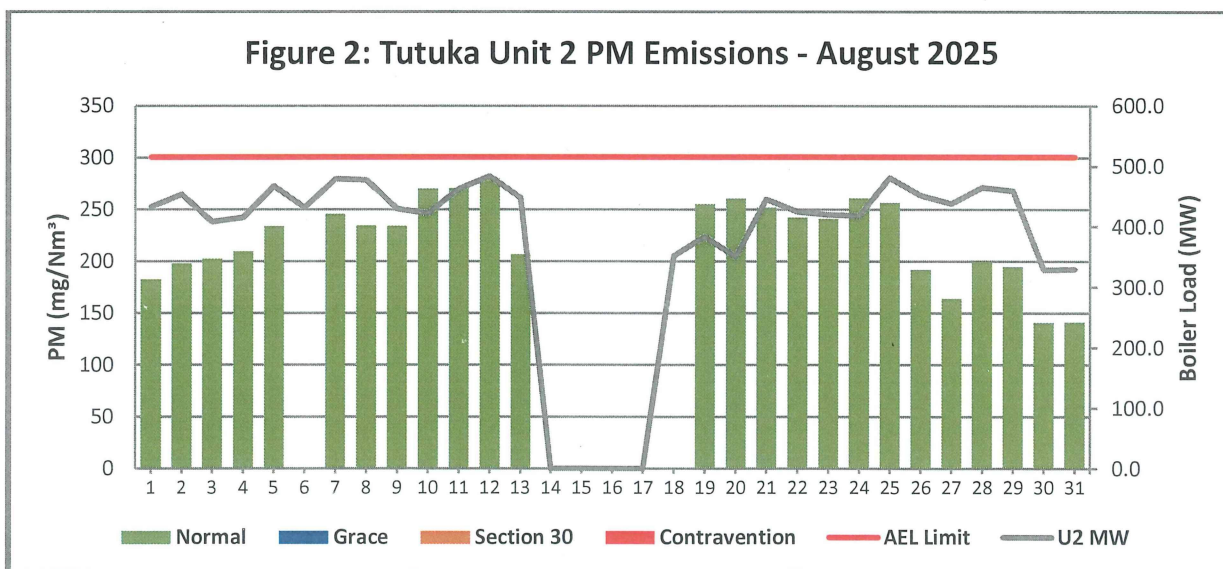


Figure 2: Tutuka Unit 2 PM Emissions - August 2025



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Figure 3: Tutuka Unit 3 PM Emissions - August 2025

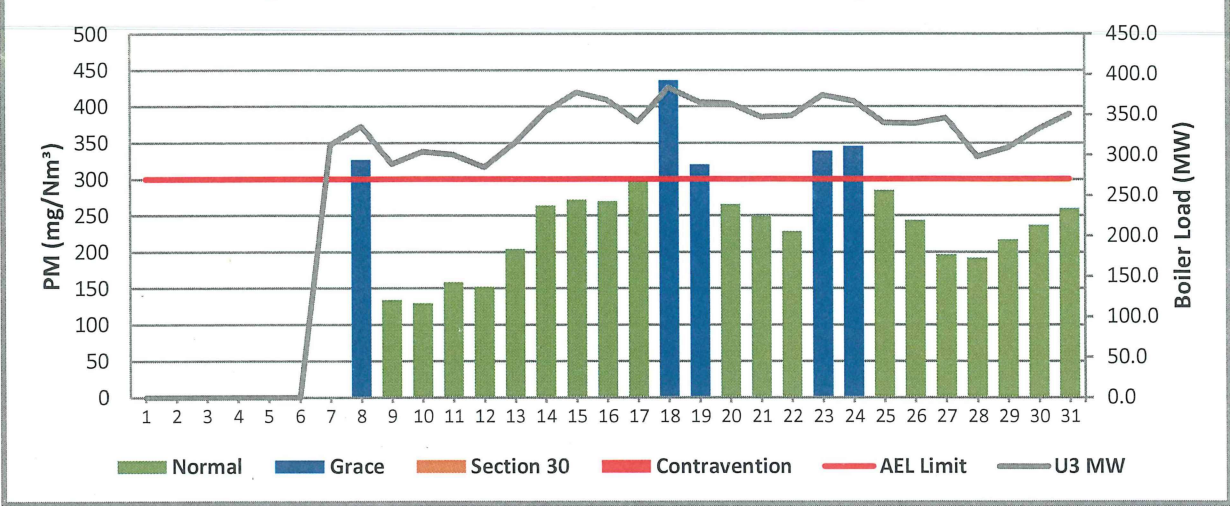


Figure 4: Tutuka Unit 4 PM Emissions - August 2025

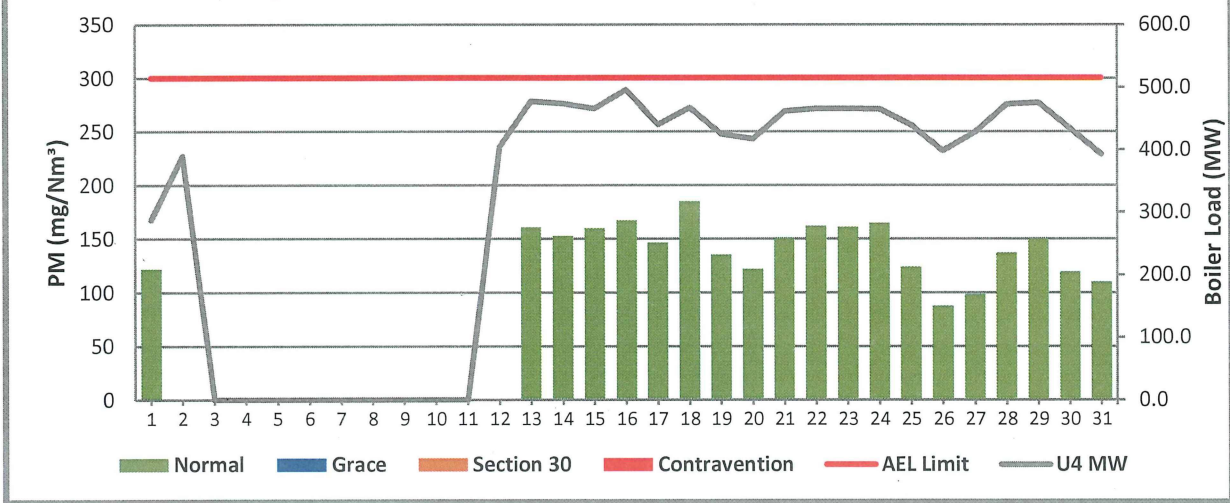
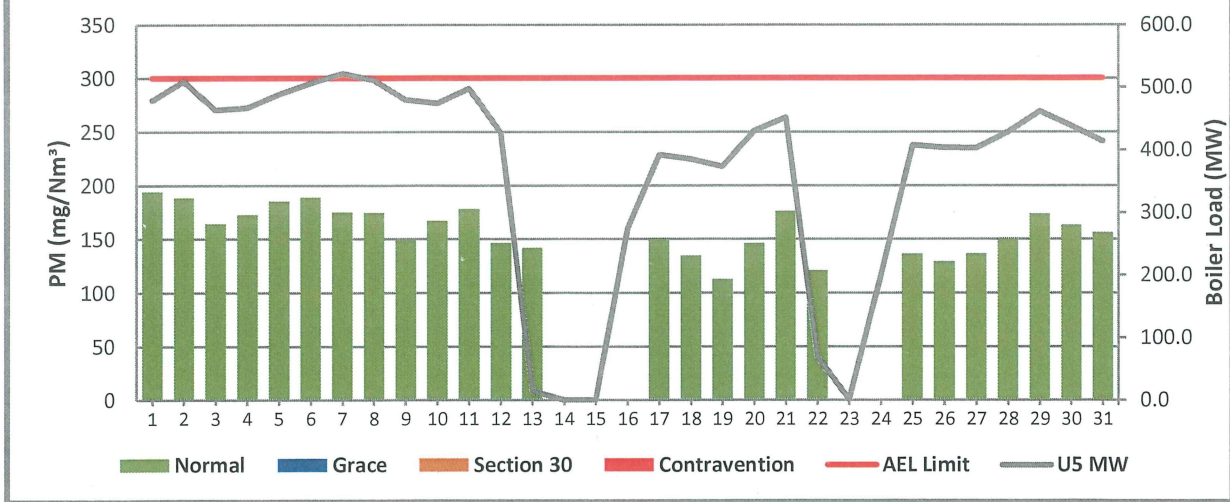


Figure 5: Tutuka Unit 5 PM Emissions - August 2025



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Figure 6: Tutuka Unit 6 PM Emissions - August 2025

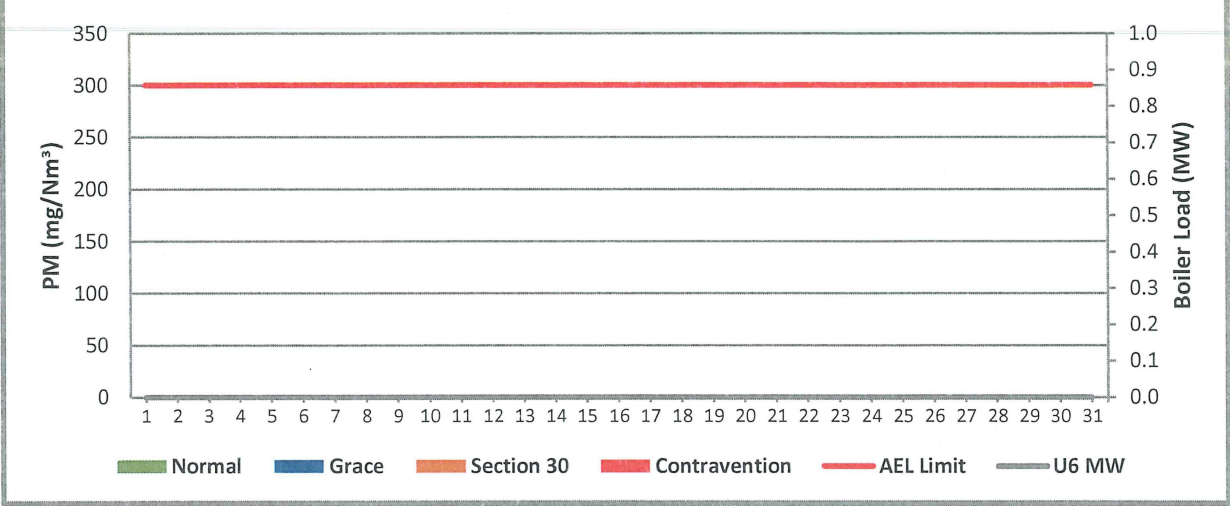


Figure 7: Tutuka Unit 1 SO₂ Emissions - August 2025



Figure 8: Tutuka Unit 2 SO₂ Emissions - August 2025



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Figure 9: Tutuka Unit 3 SO₂ Emissions - August 2025

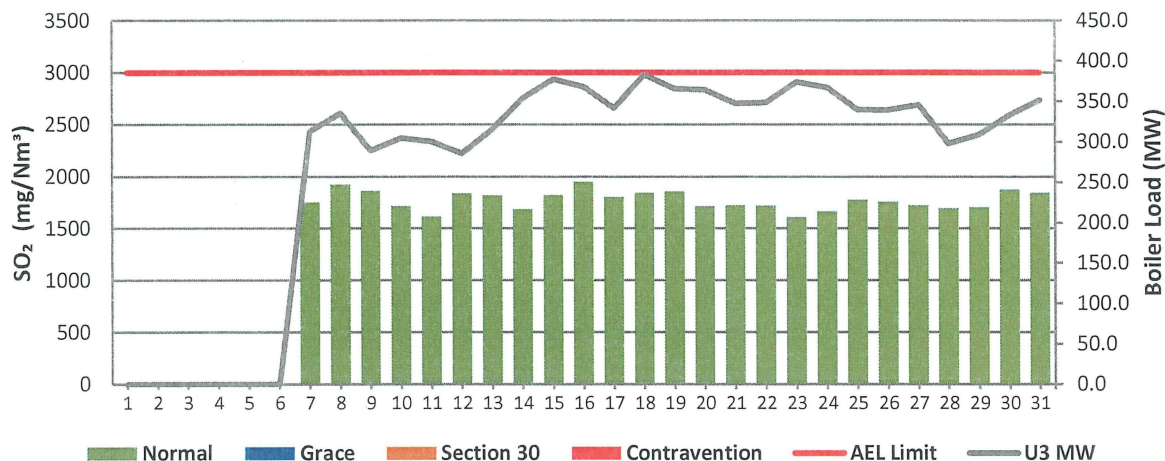


Figure 10: Tutuka Unit 4 SO₂ Emissions - August 2025

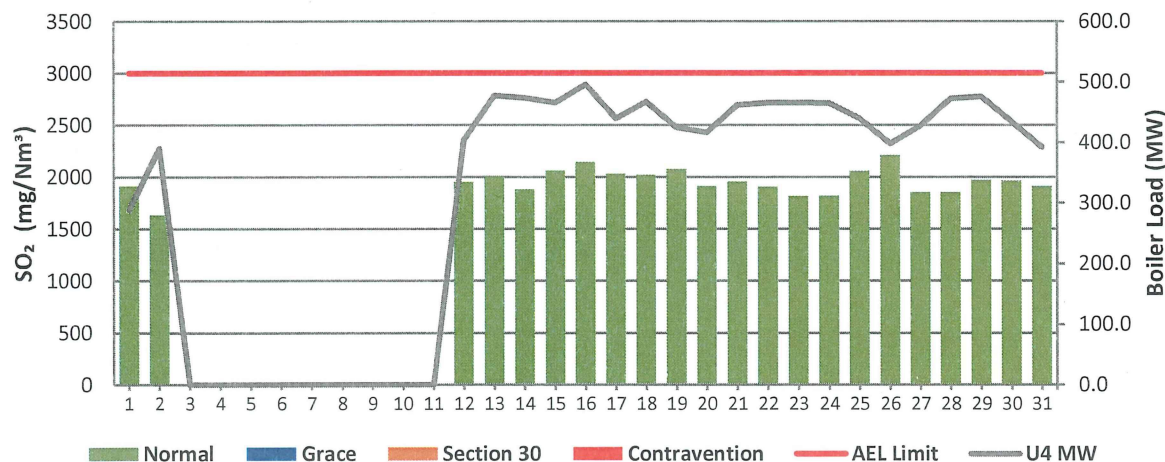
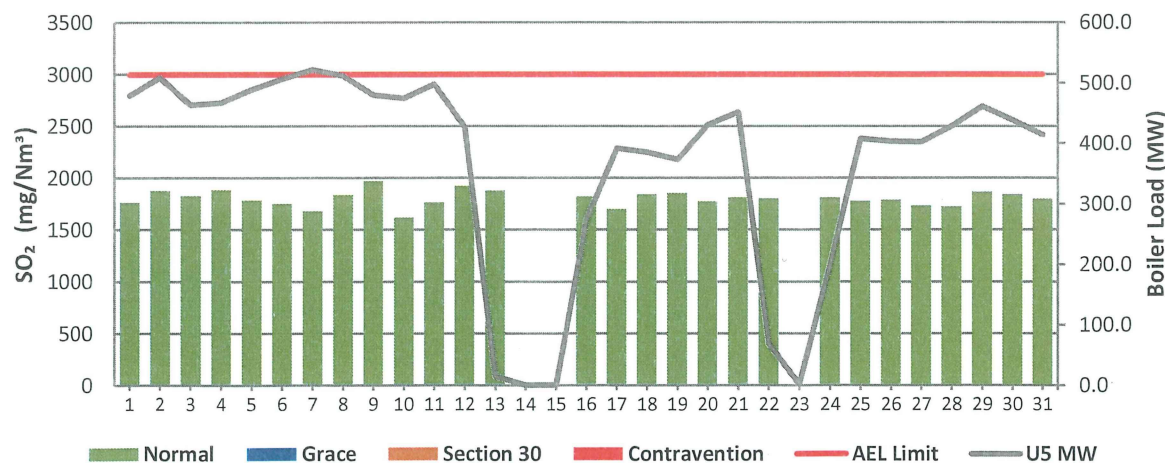


Figure 11: Tutuka Unit 5 SO₂ Emissions - August 2025



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Figure 12: Tutuka Unit 6 SO₂ Emissions - August 2025

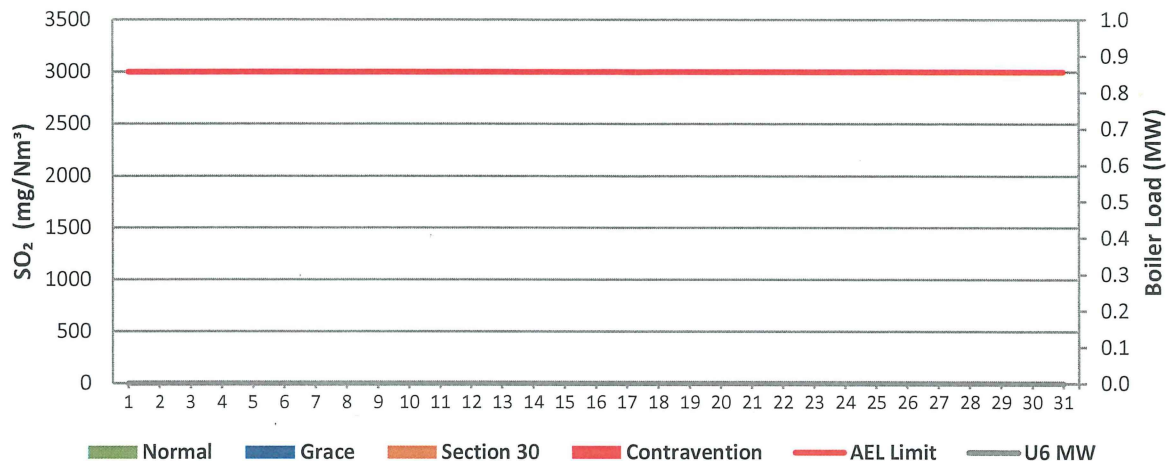


Figure 13: Tutuka Unit 1 NO_x Emissions - August 2025

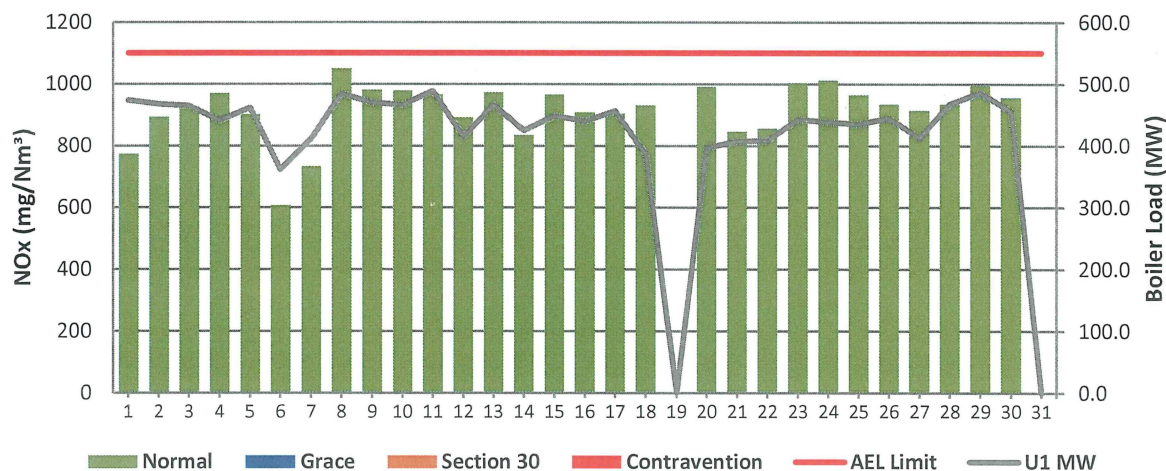
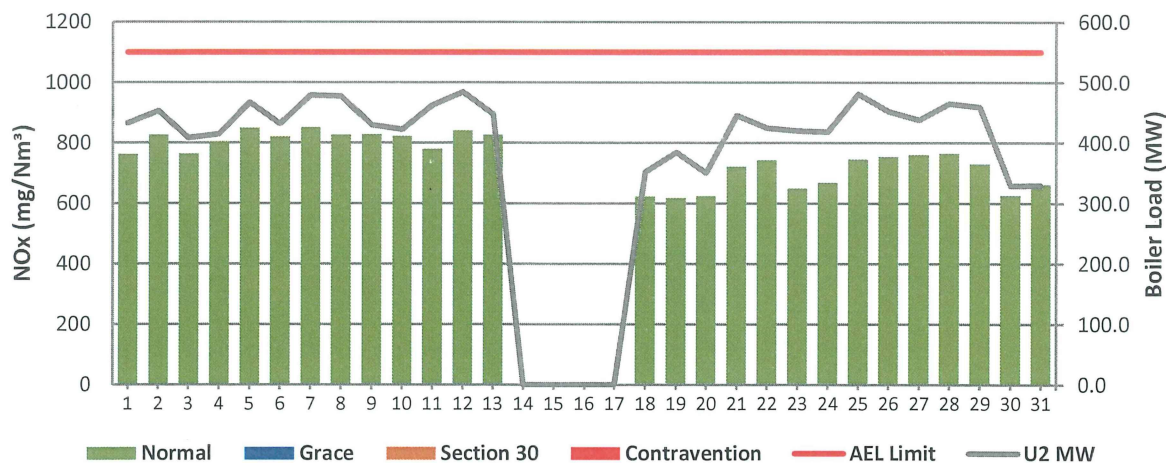


Figure 14: Tutuka Unit 2 NO_x Emissions - August 2025



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Figure 15: Tutuka Unit 3 NO_x Emissions - August 2025

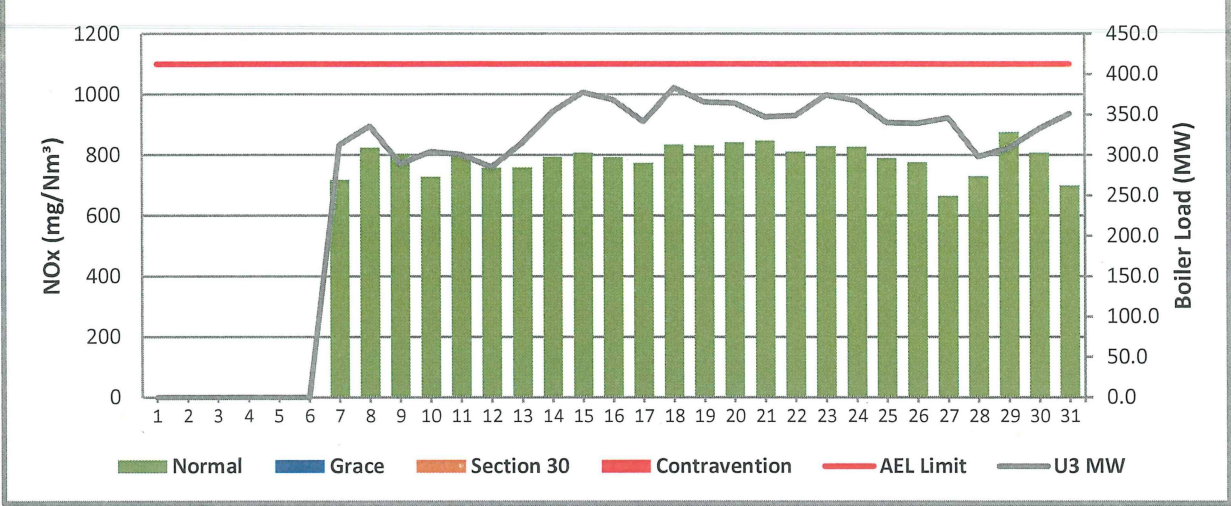


Figure 16: Tutuka Unit 4 NO_x Emissions - August 2025

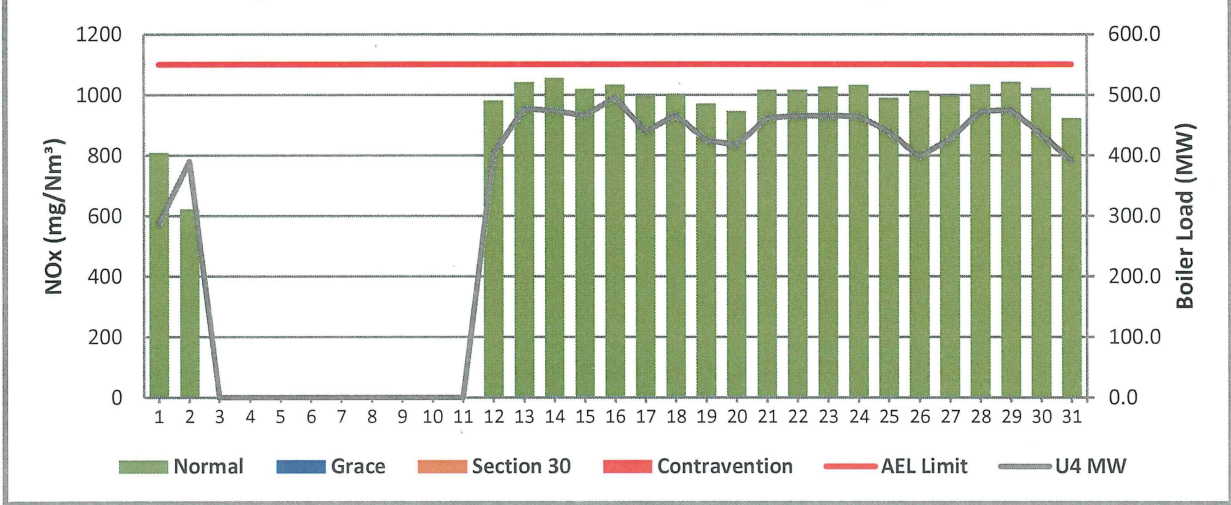
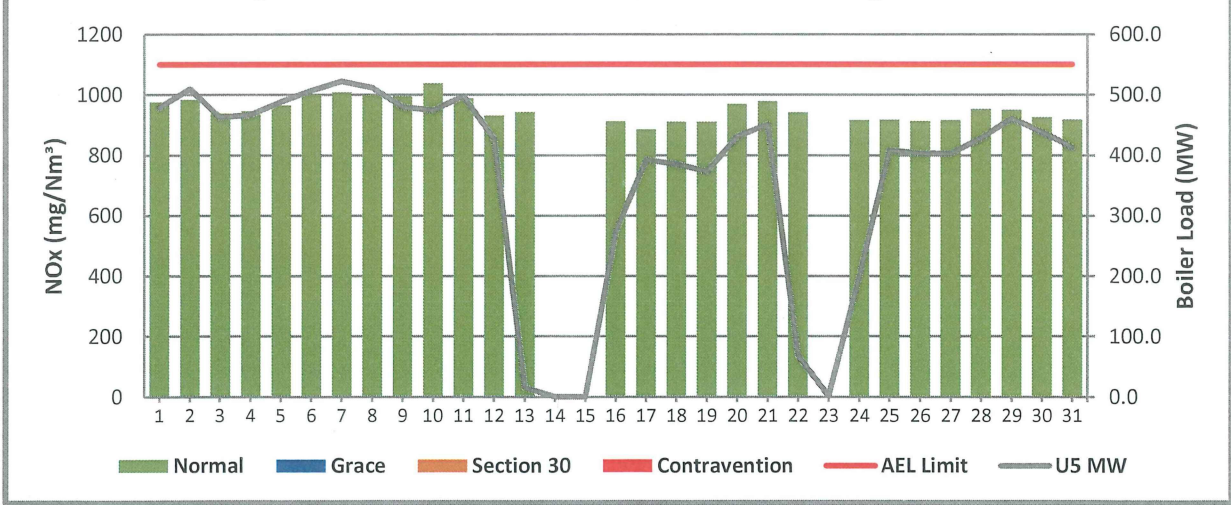
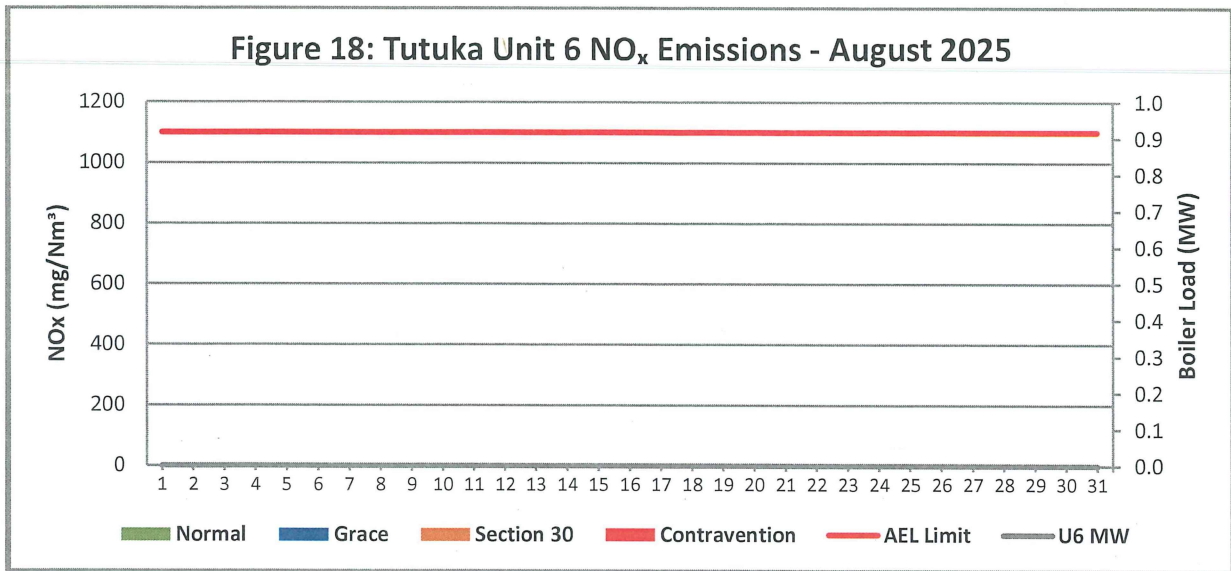


Figure 17: Tutuka Unit 5 NO_x Emissions - August 2025



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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 August 2025.					

Yours Sincerely

Compiled by:

Rotondwa Mukhwa

SENIOR ENVIRONMENTAL ADVISOR

Verified by:

Xoli Jila

ACTING ENVIRONMENTAL MANAGER

Supported by:

Mmakwena Ramatshela

BOILER ENGINEER

Approved by:

Bruce Moyo

GENERAL MANAGER