

	Medupi Power Station Monthly Emissions Report	Template Identifier	240-43921804	Rev	7
		Document Identifier	240-88543153	Rev	2
		Effective Date	February 2026		
		Review Date	February 2027		

Stanley Koenaitse

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Date: 2026/03/30

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Ref: H16/1/13-AEL/M1/R1 – March 2026

Dear Mr Koenaitse

MEDUPI POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF MARCH 2026

This document serves as the monthly emissions report required in terms of Section 7.7.1 of Medupi Power Station Provisional Atmospheric Emission License (AEL), H16/1/13-AEL/M1/R1.

This report reflects Unit 1,2,3,4,5, and 6 gaseous and particulate emissions performance against the AEL limit for the month of March 2026 only.

1. Raw Materials and Products

TABLE 1: QUANTITY OF RAW MATERIALS AND PRODUCTS CONSUMPTION IN MARCH 2026

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – March 2026
	Coal	Tons/month	1 875 000	714 887
	Fuel Oil	Tons/month	20 000	3270
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of March 2026
	Energy	GWh	3 571.2	1 260.127
	Ash Emitted	Tons/month	not specified	160.48

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Date	Daily Reportable Hours of Operation						Coal usage	Production rate (MW)					
	U1	U2	U3	U4	U5	U6		U1	U2	U3	U4	U5	U6
01-March	24.0	24.0	24.0	10.4	0.0	24.0	26373	480	477	464	456	0	480
02-March	24.0	24.0	24.0	24.0	0.0	24.0	29430	520	566	522	557	0	548
03-March	24.0	24.0	24.0	24.0	0.0	24.0	29729	582	597	510	576	0	534
04-March	24.0	24.0	24.0	24.0	0.0	24.0	33203	624	618	550	684	0	580
05-March	24.0	24.0	24.0	24.0	0.0	24.0	35484	591	589	548	713	0	564
06-March	24.0	24.0	24.0	24.0	0.0	9.7	30176	663	638	608	588	0	225
07-March	9.3	24.0	24.0	24.0	0.0	0.0	18746	146	481	463	497	0	0
08-March	4.6	24.0	24.0	24.0	0.0	0.0	20872	456	466	474	473	0	0
09-March	24.0	24.0	24.0	24.0	0.0	0.0	24888	577	534	523	560	0	0
10-March	24.0	24.0	24.0	24.0	0.0	0.0	25467	615	572	542	538	0	0
11-March	8.7	24.0	24.0	24.0	0.0	0.0	21705	279	558	532	519	0	0
12-March	0.0	24.0	24.0	7.5	0.0	0.0	16271	70	653	528	168	0	63
13-March	0.0	24.0	24.0	0.0	0.0	7.5	23210	191	707	580	31	0	539
14-March	0.0	9.0	24.0	0.0	0.0	24.0	19050	100	514	550	0	0	518
15-March	0.0	11.1	24.0	0.0	0.0	19.1	16377	0	611	526	0	0	375
16-March	0.0	24.0	24.0	0.0	0.0	0.0	14700	0	653	530	0	0	157
17-March	0.0	24.0	24.0	0.0	0.0	0.0	12641	0	663	532	0	0	0
18-March	0.0	24.0	24.0	0.0	0.0	0.0	13675	0	585	535	125	0	0
19-March	0.0	24.0	24.0	8.6	0.0	0.0	15438	0	475	468	549	0	0
20-March	0.0	24.0	24.0	24.0	0.0	0.0	15927	0	461	471	578	0	0
21-March	0.0	24.0	24.0	24.0	0.0	0.0	16474	0	535	475	547	0	0
22-March	0.0	24.0	24.0	24.0	0.0	0.0	15730	0	475	511	519	0	0
23-March	0.0	24.0	24.0	24.0	0.0	0.0	19321	0	536	459	693	0	166
24-March	0.0	24.0	24.0	24.0	0.0	10.6	23103	0	579	533	684	0	460
25-March	0.0	24.0	24.0	24.0	0.0	0.0	18325	0	644	464	651	0	0
26-March	0.0	22.9	24.0	24.0	0.0	0.0	20290	0	658	564	578	0	101
27-March	0.0	0.0	24.0	24.0	0.0	5.5	18973	0	1	591	695	0	493
28-March	0.0	0.0	24.0	24.0	0.0	0.0	17349	0	1	672	610	0	170
29-March	0.0	0.0	24.0	24.0	0.0	8.9	19381	0	214	581	571	0	512
30-March	0.0	12.4	24.0	24.0	0.0	24.0	20607	0	477	448	464	0	509
31-March	0.0	24.0	24.0	4.6	0.0	24.0	16668	0	474	471	82	0	508

NB: Operating hours less than 24 highlighted in pink.

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2. Abatement Technology

TABLE 2: ABATEMENT EQUIPMENT CONTROL TECHNOLOGY EFFICIENCY FOR MONTH OF MARCH 2026

Associated Unit/Stack	Technology Type	Efficiency	FFP Utilization
Unit 1	Fabric Filter Plant (FFP)	99.963%	100%
Unit 2	Fabric Filter Plant (FFP)	99.953%	100%
Unit 3	Fabric Filter Plant (FFP)	99.958%	100%
Unit 4	Fabric Filter Plant (FFP)	99.797%	100%
Unit 5	Fabric Filter Plant (FFP)	Off-line	Off-line
Unit 6	Fabric Filter Plant (FFP)	99.953%	100%

Note: FFP does not have bypass mode operation, hence plant 100% Utilised.

3. Energy Source Characteristics

TABLE 3: ENERGY SOURCE MATERIAL CHARACTERISTICS FOR THE MONTH OF MARCH 2026

Characteristic	Stipulated Range (% by weight on a dry basis)	Monthly Average Content (% by weight on a dry basis)
	Coal	
Sulphur Content	1.3 - 2.2	1.40
Ash Content	35 - 39	35.40

TABLE 4: ENERGY SOURCE MATERIAL CHARACTERISTICS FOR THE MONTH OF MARCH 2026

Characteristic	Stipulated Range (%)	Monthly Average Content (%)
	Oil	
Sulphur Content	0.5 - 3.5	1.8
Ash Content	0.02 - 0.1	0.030

4. Emissions Reporting

Medupi Power Station uses Continuous Emission Monitoring System which uses the extractive method for analysis.

The emission limits are as follows:

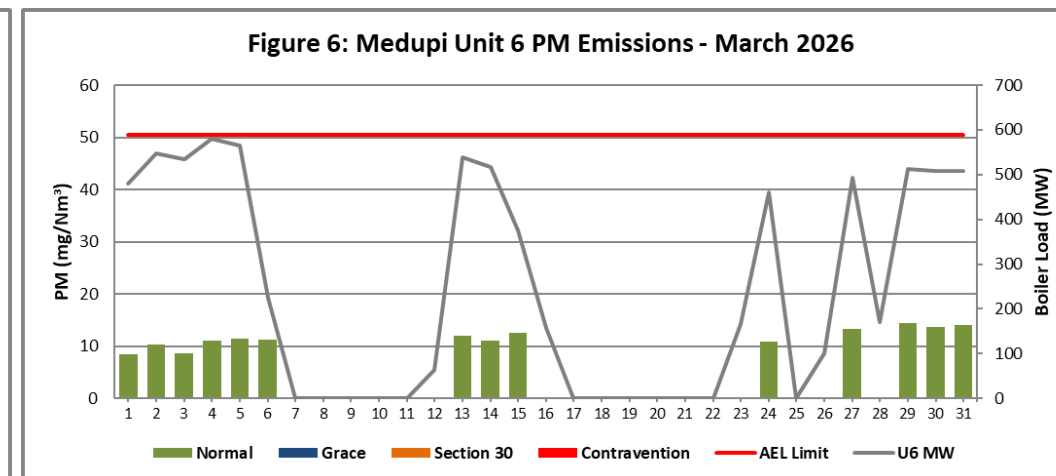
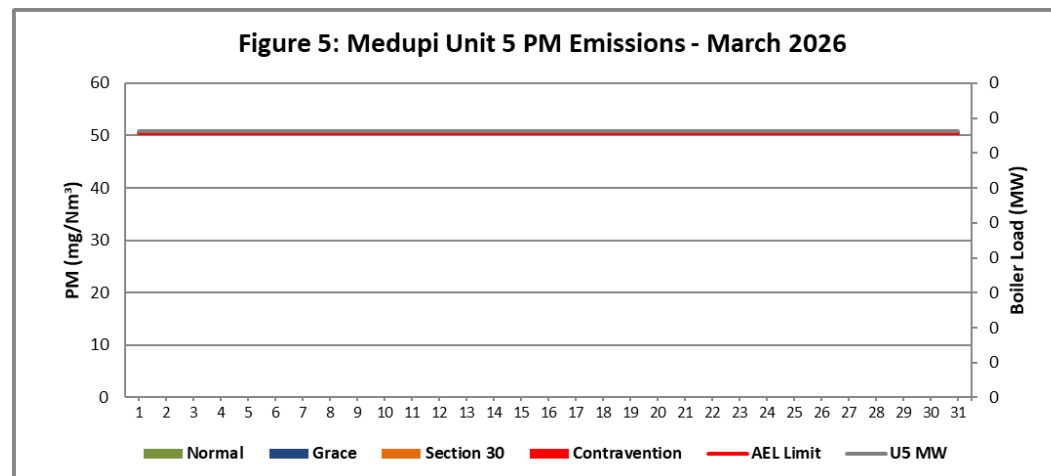
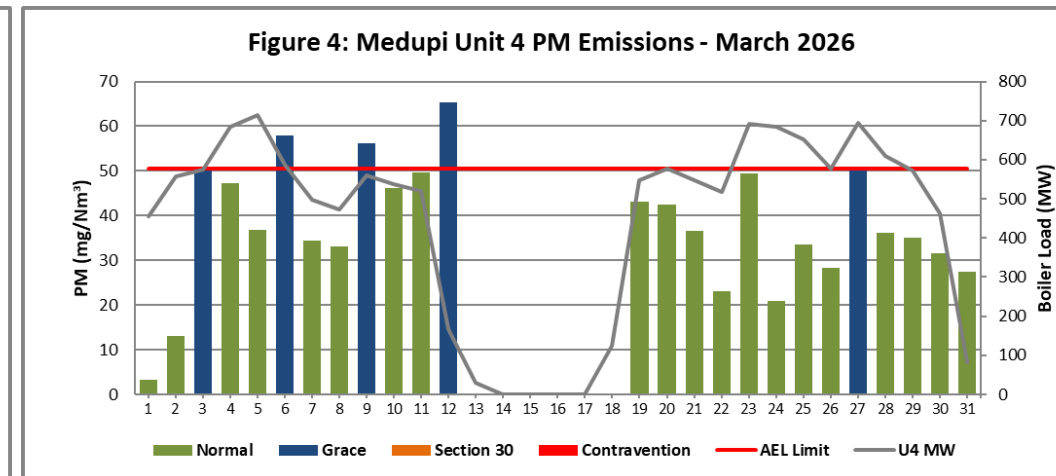
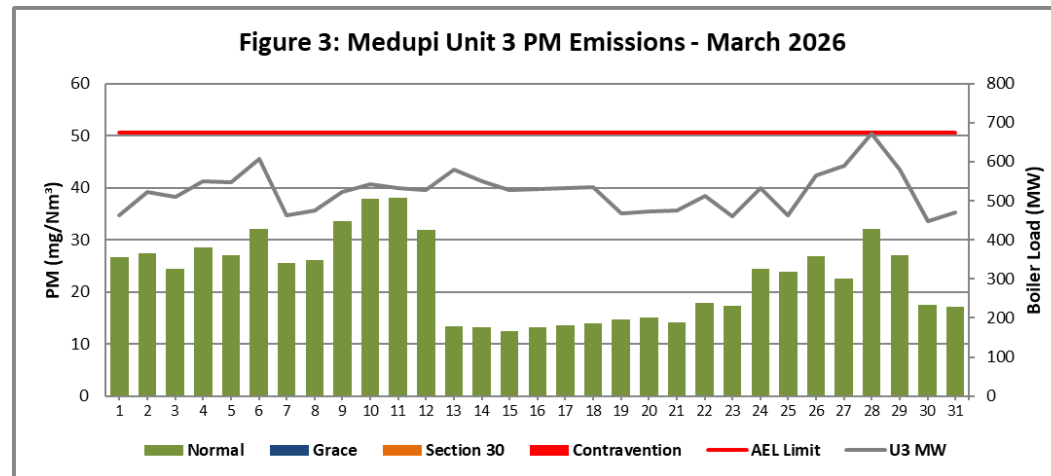
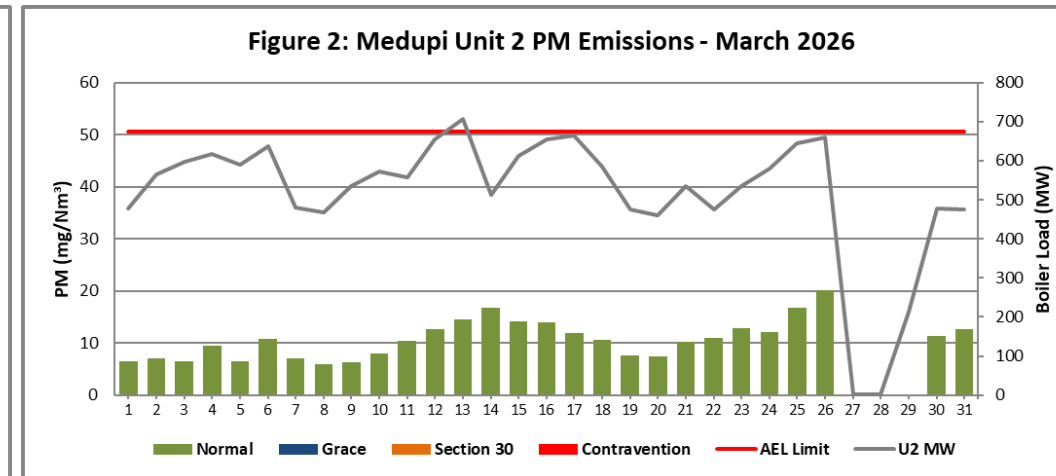
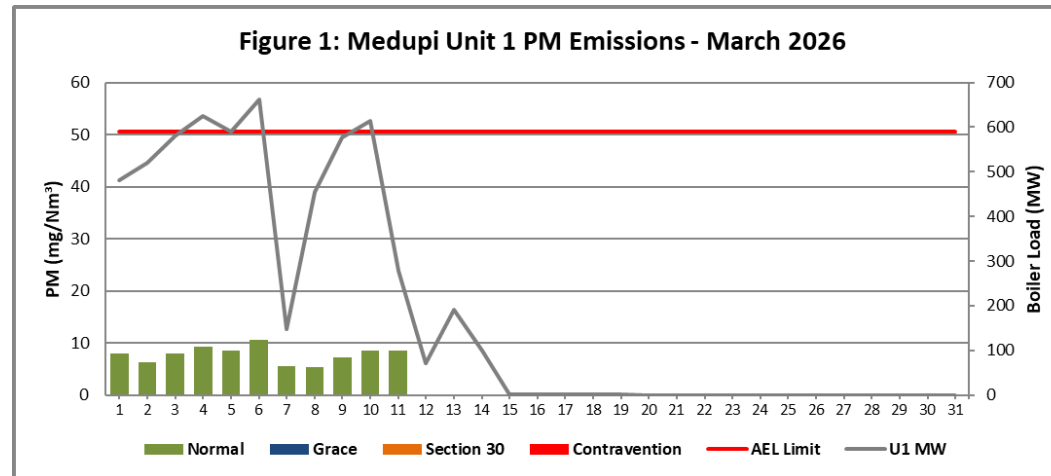
SO₂ Monthly = 3500 mg/Nm³

Dust Daily= 50 mg/Nm³

NO₂ Daily= 750 mg/Nm³

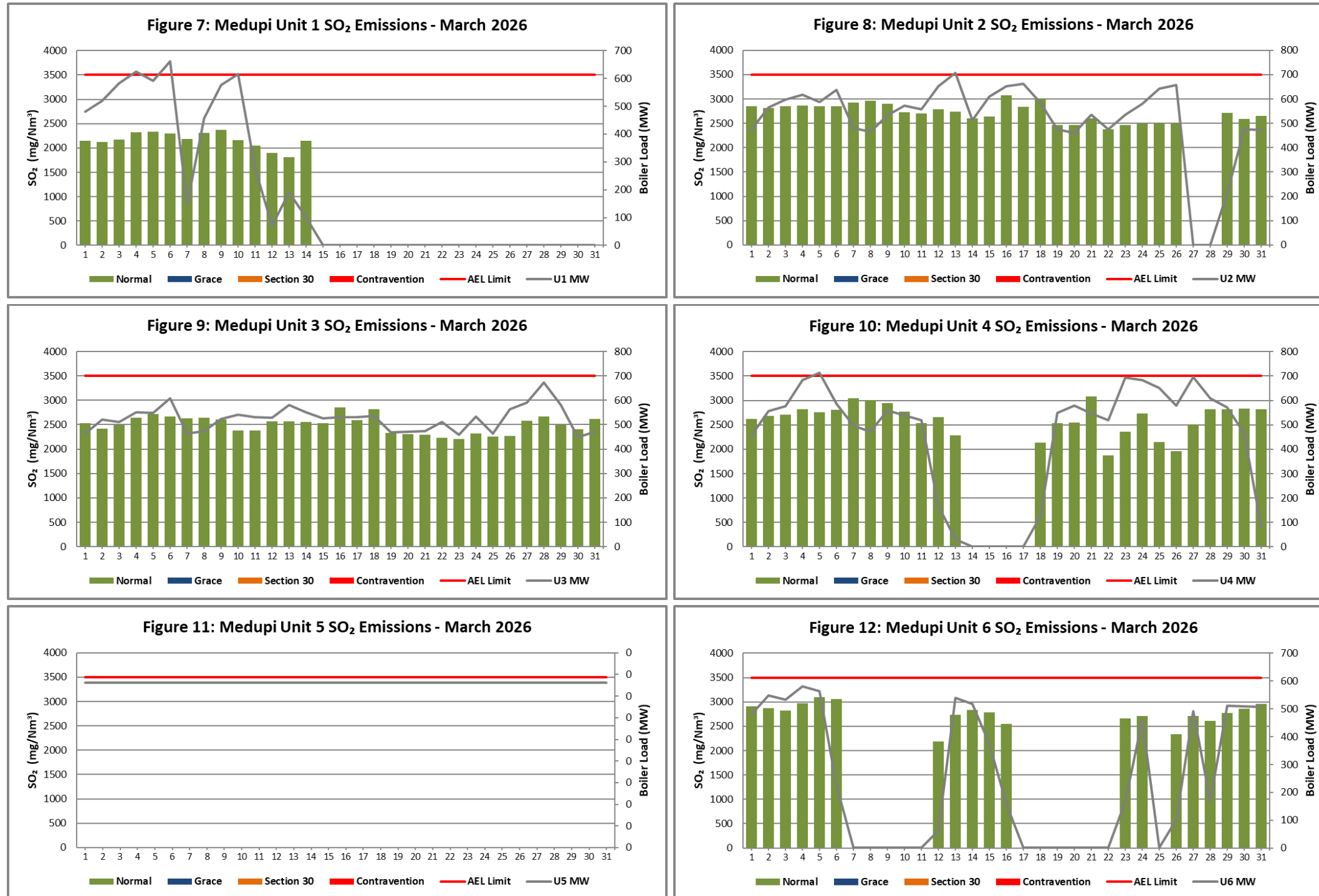
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4.1 PM Daily Averages



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4.2 SO₂ Daily Averages



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4.3 NO_x Daily Averages

Figure 13: Medupi Unit 1 NO_x Emissions - March 2026

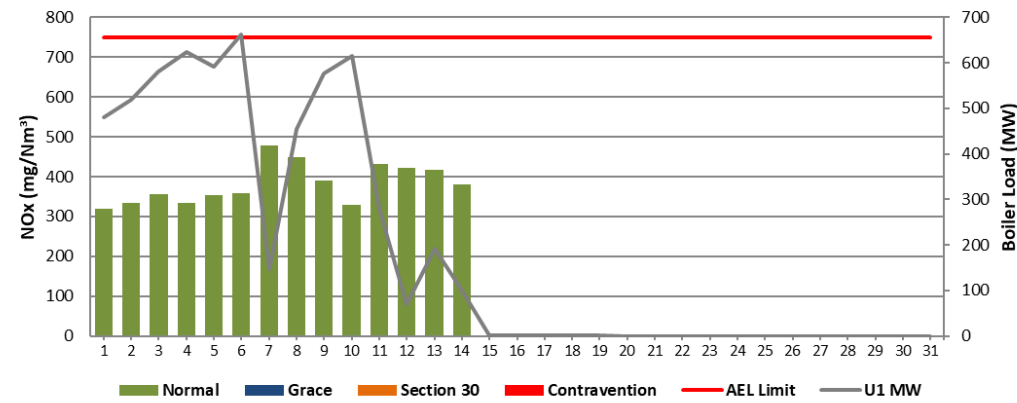


Figure 14: Medupi Unit 2 NO_x Emissions - March 2026

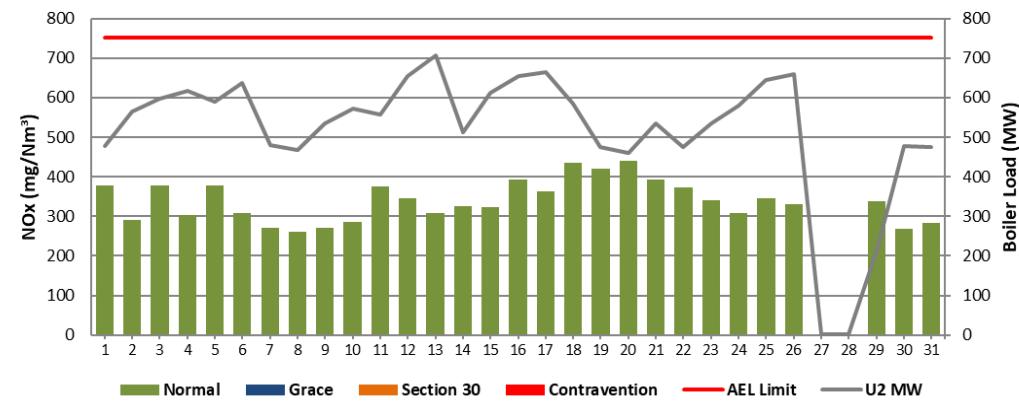


Figure 15: Medupi Unit 3 NO_x Emissions - March 2026

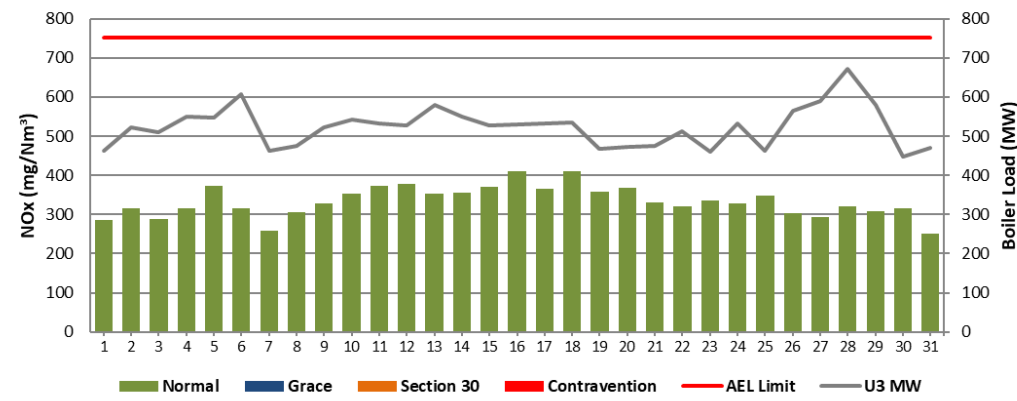


Figure 16: Medupi Unit 4 NO_x Emissions - March 2026

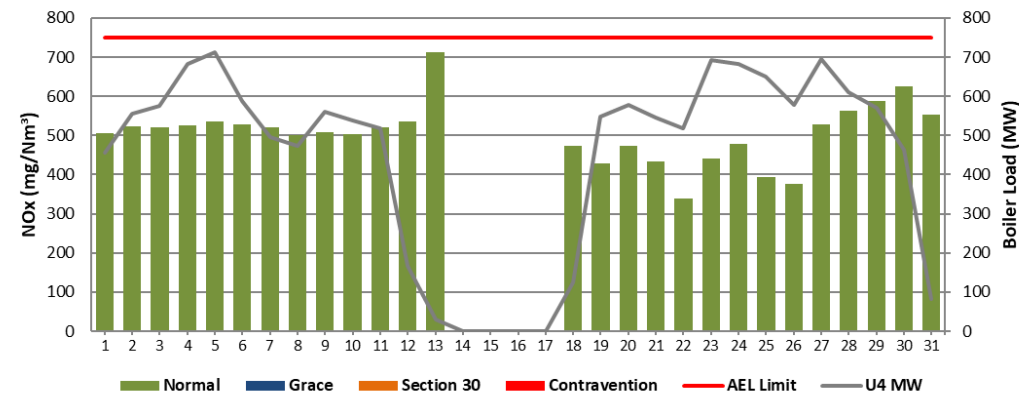


Figure 17: Medupi Unit 5 NO_x Emissions - March 2026

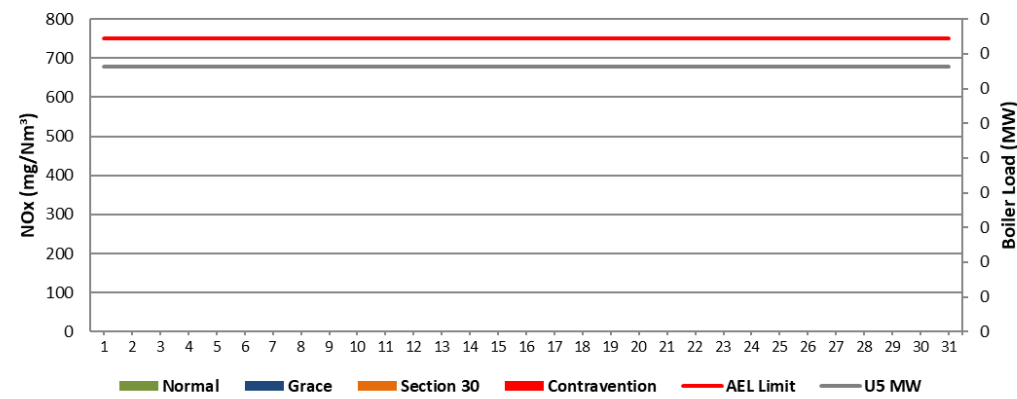
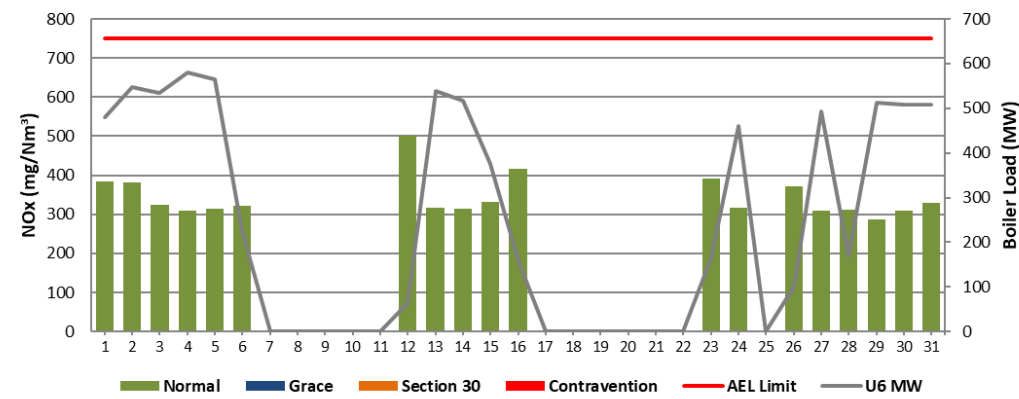


Figure 18: Medupi Unit 6 NO_x Emissions - March 2026



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TABLE 5: MONTHLY TONNAGES FOR THE MONTH OF MARCH 2026

Associated Unit/Stack	PM	SO ₂	NO ₂
Unit 1	8.4	2 694	448
Unit 2	25.3	6 825	848
Unit 3	22.9	2 489	329
Unit 4	90.9	6 589	1 233
Unit 5	Off	Off	Off
Unit 6	12.9	4 461	521
SUM (Tons)	160.48	23 058	3 381

TABLE 6: MONTHLY AVERAGES FOR THE MONTH OF MARCH 2026

Associated Unit/Stack	Average PM (mg/Nm ³)	Average SO ₂ (mg/Nm ³)	Average NO _x (mg/Nm ³)
Unit 1	7.8	2 164.3	382.6
Unit 2	10.7	2 719.6	338.8
Unit 3	22.9	2 503.6	333.4
Unit 4	38.1	2 622.5	505.3
Unit 5	Off	Off	Off
Unit 6	11.6	2 758.0	344.4

5. Continuous Emission Monitoring Systems (CEMS)

Unit 1,2,3,4,5 and 6 Continuous Emission Monitoring Systems were always in operation when the unit was on load.

TABLE 7: PERIODS DURING WHICH CEMS WAS INOPERATIVE/MALFUNCTIONING

Date	CEMS status	Comments
No issues		

TABLE 8: CEMS MONITOR RELIABILITY PERCENTAGE (%)

Associated Unit/Stack	PM	SO ₂	NO ₂	O ₂
Unit 1	100.0	96.6	100.0	100.0
Unit 2	100.0	96.6	96.6	96.6
Unit 3	100.0	100.0	88.7	100.0
Unit 4	97.3	91.5	92.9	77.5
Unit 5	Off	Off	Off	Off
Unit 6	100.0	99.8	99.8	99.8

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6. CEMS Calibration certificates and equipment used for calibration.

A service provider was appointed to calibrate CEMS equipment at Medupi Power Station, calibration certificates are in place and are made available upon request. Verification of the CEMS after calibration is conducted internally by Eskom.

7. Ambient Air Quality Monitoring Report

The Ambient Air Quality Monitoring report and Dust Fallout report for the month of March 2026 were submitted in April 2026.

8. Visual inspection of the exterior walls of the fuel oil tanks and TVOC Estimation

Visual inspection was conducted and there were no leaks observed on the exterior walls of the fuel oil tanks.

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TABLE 9: TOTAL VOLATILE ORGANIC COMPOUND (TVOC) FOR MARCH 2026

		
CALCULATION OF EMISSIONS OF TOTAL VOLATILE COMPOUNDS FROM FUEL OIL STORAGE TANKS*		
Date:	Monday, 23 March 2026	
Station:	Medupi Power Station	
Province:	Limpopo Province	
Tank no.	1-2	
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 blue cells below Choose from a dropdown menu in the green cells The total VOC emissions for the month are in the red cells IMPORTANT: Do not change any other cells without consulting the AQ CoE		
MONTH:	March	
GENERAL INFORMATION:	Data	Unit
Total number of fuel oil tanks:	2	NA
Height of tank:*	14.2	m
Diameter of tank:	12	m
Net fuel oil throughput for the month:	3 270	tons/month
Molecular weight of the fuel oil:	166.00	Lb/lb-mole
METEROLOGICAL DATA FOR THE MONTH	Data	Unit
Daily average ambient temperature	23.67	°C
Daily maximum ambient temperature	30.21	°C
Daily minimum ambient temperature	17.89	°C
Daily ambient temperature range	12.31	°C
Daily total insolation factor	5.08	kWh/m²/day
Tank paint colour	Aluminum/Specular	NA
Tank paint solar absorbance	0.39	NA
FINAL OUTPUT:	Result	Unit
Breathing losses:	0.68 kg/month	
Working losses:	0.09 kg/month	
TOTAL LOSSES (Total TVOC Emissions for the month):	0.78 kg/month	
*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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9. Air quality improvements initiatives and public education and awareness campaigns

No awareness campaign was conducted for March 2026.

10. Complaints Register

TABLE 10: COMPLAINTS FOR THE MONTH OF MARCH 2026

Name/ Source Code	Air pollution complaints received	Calculation of Impacts/ emissions associated with the incident	Date of complaint and date of response by the license holder	Results of investigation	Action taken to resolve the complaint
	No complains were received				

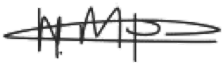
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Compiled By: Thabo Khoza
Senior Advisor
Environmental Management

 Date: 25/05/2026

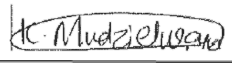
Verified by: Malose Langa
System Engineer Boiler

 Date: 2026/05/27

Verified by: Shu Mpangase
System Engineer C&I

 Date: 27/05/2026

Supported by: Mokgadi Dikgale
Environmental Manager

 Date: 27/05/2026

Supported by: Khathu Mudzielwana
Engineering Group Manager
(Acting)

 Date: 2026/05/28

I Thozama Gangi, declares that the information provided in this report is accurate and correct.

Yours sincerely

 Thozama Gangi
GENERAL MANAGER: MEDUPI POWER STATION

Date: 01/07/2026