

	Medupi Power Station Monthly Emissions Report		Template Identifier	240-43921804	Rev 7
			Document Identifier	240-88543153	Rev 2
			Effective Date	February 2025	
			Review Date	February 2027	

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Date: 2025/10/30
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Ref: H16/1/13-AEL/M1/R1 – Sept2025

Dear Mr Koenaitse

MEDUPI POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF SEP 2025

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 Sep 2025 only.

1. Raw Materials and Products

TABLE 1: QUANTITY OF RAW MATERIALS AND PRODUCTS CONSUMPTION IN SEP 2025

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Consumption – Sep 2025
	Coal	Tons/month	1 875 000	
	Fuel Oil	Tons/month	20 000	
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Production Rate in Month of Sep 2025
	Energy	GWh	3 571.2	
	Ash Emitted	Tons/month	not specified	
				1 998.69
				166.73



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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-Sep	24.0	0.0	24.0	0.0	24.0	24.0	29290	682	0	586	212	498	665
02-Sep	24.0	0.0	24.0	13.2	24.0	24.0	28351	593	0	530	559	514	500
03-Sep	24.0	0.0	24.0	24.0	24.0	24.0	30237	585	0	506	614	552	522
04-Sep	24.0	0.0	21.7	24.0	24.0	24.0	32731	659	0	456	655	585	599
05-Sep	24.0	0.0	0.0	24.0	24.0	24.0	26793	651	0	0	604	592	592
06-Sep	24.0	0.0	0.0	24.0	24.0	0.0	21787	728	0	0	627	593	0
07-Sep	24.0	0.0	0.0	24.0	24.0	0.0	20220	642	0	0	588	603	0
08-Sep	24.0	0.0	0.0	24.0	24.0	0.0	16646	545	0	0	518	579	21
09-Sep	24.0	0.0	0.0	24.0	24.0	1.3	22675	561	0	0	547	600	437
10-Sep	24.0	0.0	0.0	24.0	24.0	0.0	23635	689	0	0	601	665	236
11-Sep	24.0	0.0	0.0	24.0	24.0	5.1	25713	675	0	167	506	609	423
12-Sep	24.0	0.0	11.2	24.0	24.0	0.0	32265	701	0	483	603	632	537
13-Sep	24.0	0.0	24.0	24.0	24.0	22.6	32939	688	0	500	645	657	620
14-Sep	24.0	0.0	24.0	24.0	24.0	24.0	32777	670	0	492	613	625	617
15-Sep	24.0	0.0	24.0	24.0	24.0	24.0	30743	672	0	494	529	507	518
16-Sep	24.0	0.0	24.0	24.0	24.0	24.0	30235	637	0	500	505	492	518
17-Sep	24.0	0.0	24.0	24.0	24.0	24.0	31455	688	0	481	521	556	563
18-Sep	24.0	0.0	24.0	24.0	24.0	5.3	33618	731	0	500	642	689	492
19-Sep	24.0	0.0	24.0	24.0	24.0	13.4	36247	734	0	500	671	708	743
20-Sep	24.0	0.0	24.0	24.0	24.0	24.0	36054	749	0	491	672	695	709
21-Sep	24.0	0.0	24.0	24.0	24.0	24.0	34113	715	0	487	624	642	656
22-Sep	24.0	0.0	24.0	24.0	24.0	24.0	32221	684	0	489	574	565	596
23-Sep	24.0	0.0	24.0	24.0	24.0	24.0	35492	775	0	500	629	645	658
24-Sep	24.0	0.0	24.0	24.0	24.0	24.0	32966	779	0	500	582	563	582
25-Sep	24.0	0.0	24.0	24.0	24.0	24.0	35620	777	0	500	649	687	694
26-Sep	24.0	0.0	24.0	24.0	24.0	24.0	35016	771	0	500	619	654	665
27-Sep	24.0	0.0	24.0	24.0	24.0	24.0	36143	774	0	491	666	685	736
28-Sep	24.0	0.0	24.0	24.0	24.0	24.0	33976	661	0	486	647	664	667
29-Sep	24.0	0.0	24.0	24.0	24.0	24.0	32494	706	0	491	545	523	669
30-Sep	24.0	0.0	24.0	24.0	24.0	24.0	31091	626	0	492	507	518	534

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 SEP 2025

Associated Unit/Stack	Technology Type	Efficiency	FFP Utilization
Unit 1	Fabric Filter Plant (FFP)	100.0%	100%
Unit 2	Fabric Filter Plant (FFP)	Off-line	Off-line
Unit 3	Fabric Filter Plant (FFP)	99.9%	100%
Unit 4	Fabric Filter Plant (FFP)	100.0%	100%
Unit 5	Fabric Filter Plant (FFP)	99.9%	100%
Unit 6	Fabric Filter Plant (FFP)	100.0%	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 SEP 2025

Characteristic	Stipulated Range (% by weight on a dry basis)	Monthly Average Content (% by weight on a dry basis)
Sulphur Content	1.3 - 2.2	Coal 1.5
Ash Content	35 - 39	35.8

TABLE 4: ENERGY SOURCE MATERIAL CHARACTERISTICS FOR THE MONTH OF SEP 2025

Characteristic	Stipulated Range (%)	Monthly Average Content (%)
Sulphur Content		Oil 2.0
Ash Content	0.02 - 0.1	0.010

4. Emissions Reporting

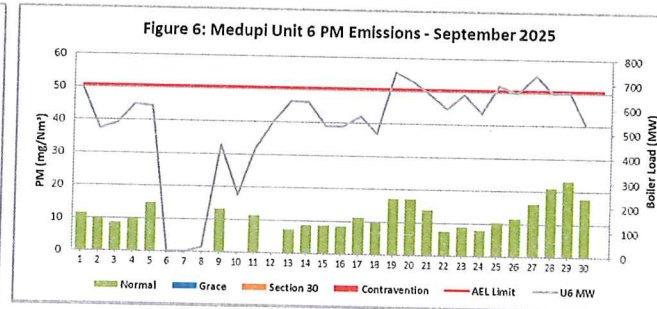
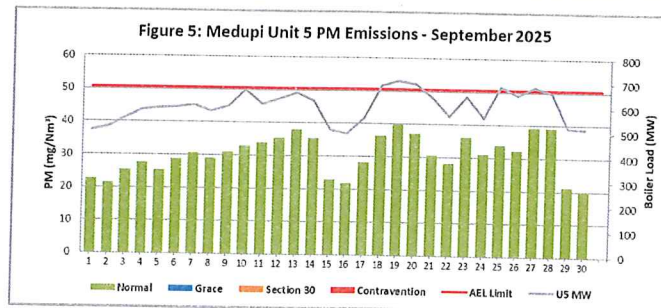
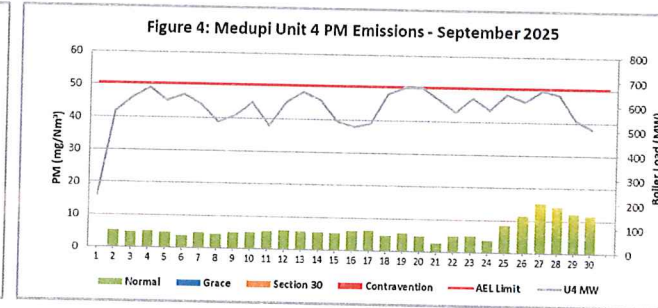
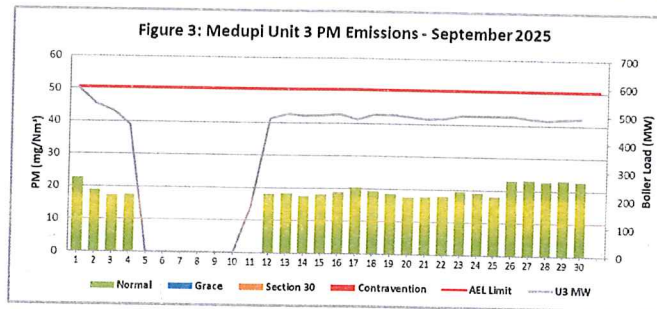
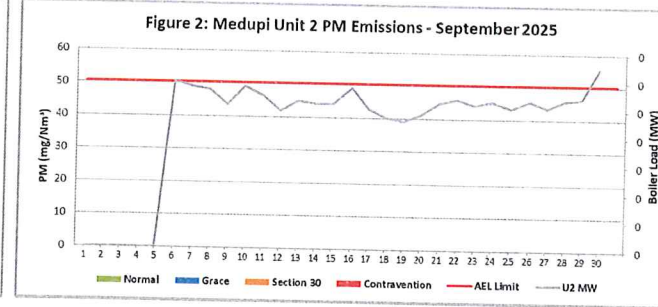
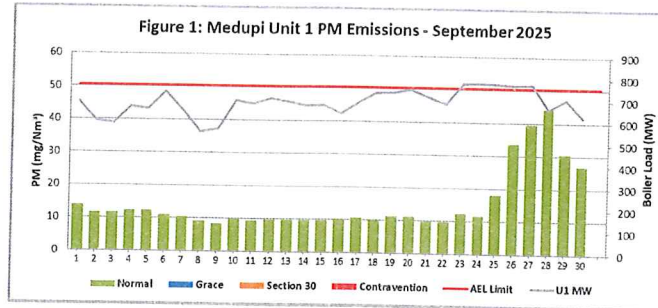
Medupi Power Station uses Continuous Emission Monitoring System which uses the extractive method for analysis.

The emission limits are as follows:

SO₂ Monthly = 3500 mg/Nm³ Dust Daily= 50 mg/Nm³ NO₂ Daily= 750 mg/Nm³

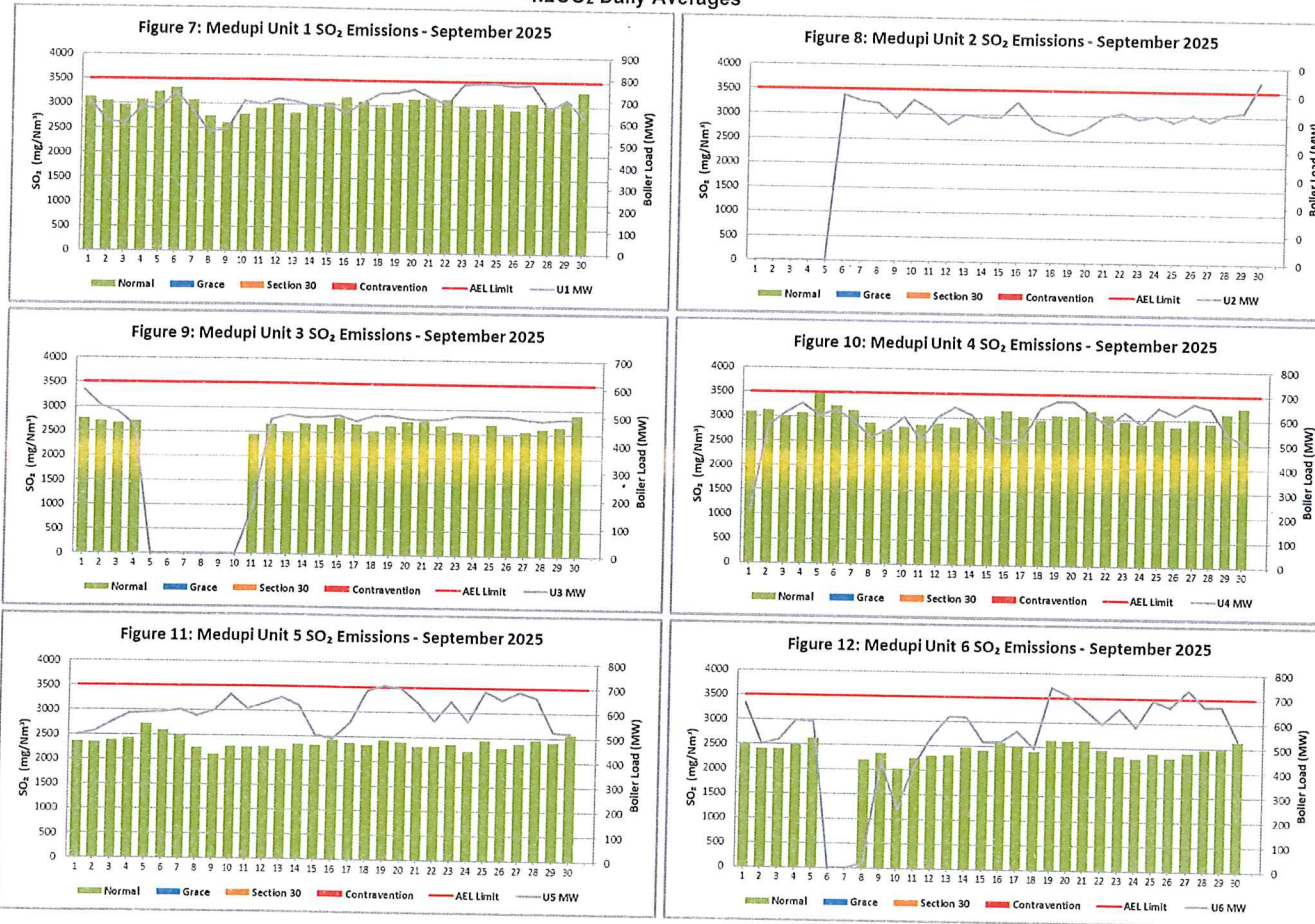
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4.1 PM Daily Averages



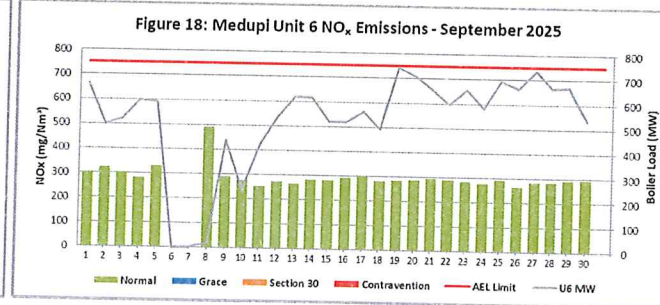
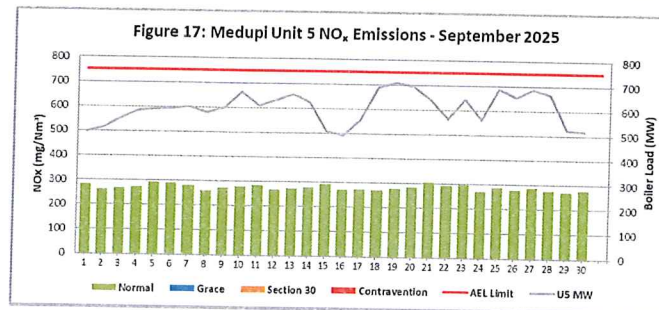
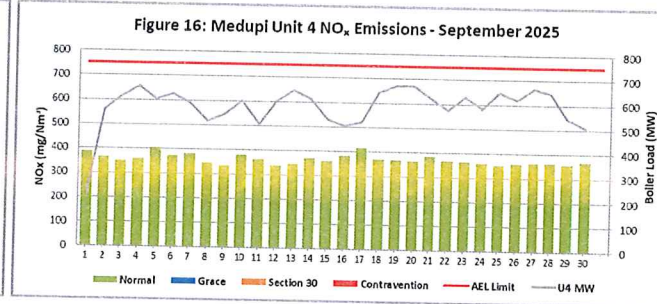
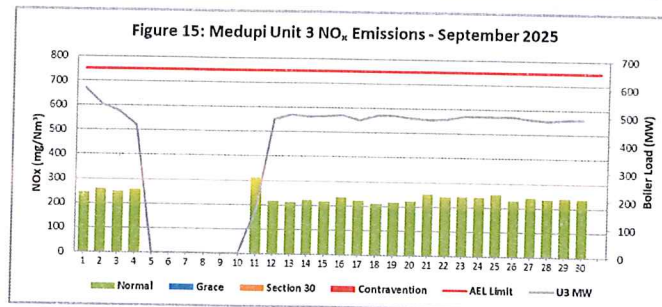
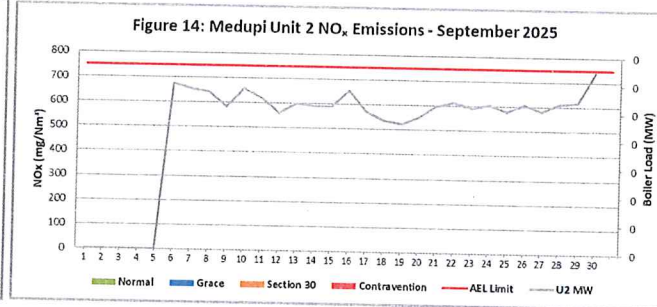
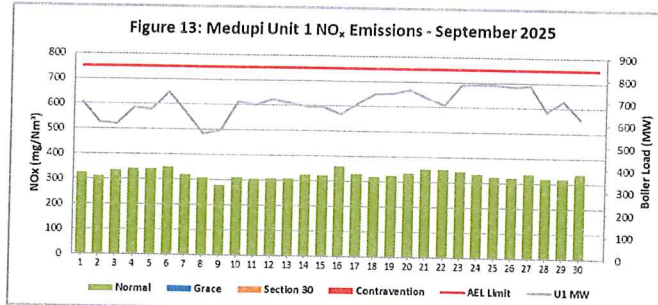
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4.2SO₂ Daily Averages



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4.3 NO_x Daily Averages



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TABLE 5: MONTHLY TONNAGES FOR THE MONTH OF SEP 2025

Associated Unit/Stack	PM	SO ₂	NO ₂
Unit 1	29.9	5 990	646
Unit 2	Off	Off	Off
Unit 3	23.0	3 230	286
Unit 4	17.7	8 459	1 020
Unit 5	72.8	5 449	643
Unit 6	23.4	5 262	615
SUM (Tons)	166.73	28 390	3 211

TABLE 6: MONTHLY AVERAGES FOR THE MONTH OF SEP 2025

Associated Unit/Stack	Average PM (mg/Nm³)	Average SO ₂ (mg/Nm³)	Average NOx (mg/Nm³)
Unit 1	14.9	3 027.7	326.8
Unit 2	Off	Off	Off
Unit 3	19.6	2 650.0	237.7
Unit 4	6.5	3 027.3	366.4
Unit 5	30.5	2 368.0	279.3
Unit 6	12.3	2 425.2	294.9

5. Continuous Emission Monitoring Systems (CEMS)

Unit 1, 2, 3, 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
NA	NA	NA

TABLE 8: CEMS MONITOR RELIABILITY PERCENTAGE (%)

Associated Unit/Stack	PM	SO ₂	NO ₂	O ₂
Unit 1	100.0	99.8	99.7	99.7
Unit 2	Off	Off	Off	Off
Unit 3	99.8	99.8	99.8	99.7
Unit 4	100.0	99.9	99.9	99.7
Unit 5	100.0	99.7	99.7	99.7
Unit 6	100.0	99.9	99.6	99.7

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6. CEMS Calibration certificates and equipment used for calibration.

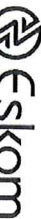
A service provider was appointed to calibrate CEMS equipment at Medupi Power Station, calibration certificates are in place and are made available upon request. Verification of the CEMS after calibration is conducted internally by Eskom.

7. Ambient Air Quality Monitoring Report

The Ambient Air Quality Monitoring report and Dust Fallout report for the month of Sep 2025 were submitted in Sep 2025.

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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9. Air quality improvements initiatives and public education and awareness campaigns

No awareness campaign was conducted for Sep 2025.

10. Complaints Register

TABLE 10: COMPLAINTS FOR THE MONTH OF SEP 2025

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
NA	NA	NA	NA	NA	NA



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Compiled By: Thabo Khoza Date: 27/11/2025
Senior Advisor
Environmental Management

Verified by: Malose Langa Date: 2025/10/27
System Engineer Boiler

Verified by: Shu Mpangase Date: 2025/10/27
System Engineer C&I

Supported by: Mokgadi Dikgale Date: 2025/10/27
Environmental Manager

Supported by: Sithokozile Hlongwa Date: 2025/10/29
Engineering Group Manager

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

Yours sincerely

Date: 30/10/2025

Thozama Gangi
GENERAL MANAGER (Acting): MEDUPI POWER STATION