	Medupi Power Station Monthly Emissions Report	Template Identifier	240-43921804	Rev	6
		Document Identifier	240-88543153	Rev	1
		Effective Date	January 2018		
		Review Date	January 2021		

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Ref: H16/1/13-AEL/M1/R1 – Jan 2021

Dear Mr Koenaitse

MEDUPI POWER STATION MONTHLY EMISSIONS REPORT FOR THE MONTH OF JANUARY 2021

This document serves as the monthly 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 is a reflection of Unit 2, 3, 4, 5 and 6 gaseous and particulate emissions performance against the AEL limit for the month of January 2021 only.

1. Raw Materials and Products

Table 1: Quantity of raw materials and products for Unit 2, 3, 4, 5 and 6 in January 2021

Raw Materials and Products used	Raw Material Type	Unit	Maximum Permitted Consumption/ Rate (Quantity)	Unit 2, 3, 4, 5 and 6 consumption January 2021
	Coal	Tons/month	1 875 000	647522
	Fuel Oil	Tons/month	20 000	3056
Production Rates	Product/ By-Product Name	Unit	Maximum Production Capacity Permitted (Quantity)	Unit 2, 3, 4, 5 and 6 Production Rate in Month of January 2021
	Energy	MW	4 800	2452
	Ash Emitted	Tons/month	not specified	190.1

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Table 2: Daily consumption and production rates

Date	Reportable hours of Operation					Coal usage	Production rate (MW)				
	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6		U2	U3	U4	U5	U6
01-January- 21	0.0	0.0	24.0	24.0	24.0	17878			669	543	562
02-January- 21	0.0	0.0	24.0	24.0	24.0	17229			609	520	548
03-January- 21	0.0	0.0	24.0	24.0	24.0	17167		201	605	402	520
04-January- 21	0.0	3.7	24.0	24.0	24.0	23577		713	607	465	529
05-January- 21	0.0	24.0	24.0	24.0	24.0	23451		713	580	410	504
06-January- 21	0.0	24.0	24.0	22.8	24.0	23217		656	494	527	501
07-January- 21	0.0	24.0	24.0	0.0	24.0	20575		691	615		616
08-January- 21	0.0	24.0	24.0	0.0	24.0	21339		675	725		595
09-January- 21	0.0	24.0	24.0	0.0	24.0	21492		669	662	422	489
10-January- 21	0.0	24.0	24.0	10.3	24.0	24319		650	610	482	527
11-January- 21	0.0	24.0	24.0	24.0	24.0	24012		654	615	463	561
12-January- 21	0.0	24.0	24.0	24.0	24.0	24574		669	661	481	506
13-January- 21	0.0	24.0	24.0	24.0	24.0	23363		649	632	445	479
14-January- 21	0.0	24.0	24.0	24.0	24.0	23581		663	546	472	488
15-January- 21	0.0	24.0	24.0	24.0	24.0	23954		659	677	459	404
16-January- 21	0.0	24.0	24.0	24.0	24.0	25289		652	687	445	505
17-January- 21	0.0	24.0	24.0	24.0	24.0	21468		594	568	469	409
18-January- 21	0.0	24.0	24.0	24.0	24.0	23256		649	559	461	526
19-January- 21	0.0	24.0	21.2	24.0	24.0	23473		650	577	468	511
21-January- 21	0.0	24.0	0.0	24.0	24.0	19969		679	321	469	486
21-January- 21	0.0	24.0	6.8	24.0	24.0	21216		680	384	486	490
22-January- 21	0.0	24.0	0.0	24.0	24.0	17640		616		472	570
23-January- 21	0.0	24.0	0.0	4.3	24.0	13663		681		470	536
24-January- 21	0.0	24.0	0.0	0.0	24.0	13534		652			570
25-January- 21	0.0	24.0	0.0	0.0	24.0	16951		596	489	287	471
26-January- 21	0.0	24.0	18.7	0.4	24.0	21854		609	580	445	514
27-January- 21	0.0	24.0	24.0	0.0	24.0	20362	154	664	580		510
28-January- 21	11.3	24.0	14.4	0.0	24.0	22699	371	500	473	205	521
29-January- 21	6.4	24.0	8.4	1.9	24.0	19418	397	429	331	461	540
30-January- 21	0.0	24.0	24.0	0.3	24.0	17643		425	510	360	540
31-January- 21	0.0	24.0	24.0	11.2	24.0	19363		427	580	410	540

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2. Abatement Technology

Table 3: Abatement Equipment Control Technology efficiency for month of January 2021

Associated Unit/Stack	Technology Type	Efficiency
Unit 1	Fabric Filter Plant (FFP)	-
Unit 2	Fabric Filter Plant (FFP)	99.992%
Unit 3	Fabric Filter Plant (FFP)	99.916%
Unit 4	Fabric Filter Plant (FFP)	99.893%
Unit 5	Fabric Filter Plant (FFP)	99.844%
Unit 6	Fabric Filter Plant (FFP)	99.882%

3. Energy Source Characteristics

Table 4: Energy Source Material Characteristics for the month of January 2021

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	1.37
Ash Content	35 - 39	32.9

Table 5: Energy Source Material Characteristics for the month of January 2021

Characteristic	Stipulated Range (%)	Monthly Average Content (%)
Oil		
Sulphur Content	0.5 - 3.5	2.1
Ash Content	0.02 - 0.1	0.01

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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Table 6: Daily averages emissions for the month of January 2021

Date	Final PM mg/Nm ³ (minus 24 hrs for tonnage calc.)						Velocity (m/s) to Gas Volume (Nm ³ /s)						Unit 2 Final CEM mg/Nm ³			Unit 2 Other CEMS Data				Unit 3 Final CEM mg/Nm ³			Unit 3 Other CEMS Data				
	U1	U2	U3	U4	U5	U6	U1	U2	U3	U4	U5	U6	SOx	NOx	CO	O ₂	°C	kPa	m/s	SOx	NOx	CO	O ₂	°C	kPa	m/s	
2021/01/01				43.4	41.9	23.0				336.6	547.3	324.0															
2021/01/02				48.0	42.6	26.5				316.9	517.4	334.1															
2021/01/03				44.8	24.0	25.4				435.7	288.8	416.2	325.7							2 218	273	34	9.0	119.8	83.5	13.2	
2021/01/04			36.2	53.2	28.7	26.7				673.8	279.1	453.8	329.5							2 926	278	90	7.7	134.5	83.4	17.6	
2021/01/05			42.5	51.8	17.3	29.3				756.3	282.9	396.6	310.3							2 707	302	102	6.4	134.5	83.2	17.6	
2021/01/06			38.8	25.7	47.2	27.8				703.5	247.7	542.9	305.5							2 764	257	70	6.7	134.1	83.2	16.8	
2021/01/07			43.1	40.4		47.1				733.4	217.8		386.4							2 763	252	54	6.4	136.9	83.3	17.1	
2021/01/08			38.8	68.0		47.8				721.6	223.3		371.4							2 837	239	14	6.3	137.3	83.3	16.7	
2021/01/09			36.4	47.2		20.8				731.7	271.6	508.9	306.5							2 809	245	17	6.2	137.6	83.2	16.8	
2021/01/10			32.7	58.9	42.6	26.0				703.8	243.5	490.5	326.5							2 816	249	27	6.5	136.1	83.1	16.5	
2021/01/11			30.8	66.2	49.2	48.9				641.1	253.6	465.6	346.9							2 918	247	20	7.1	135.0	83.2	15.8	
2021/01/12			39.5	77.1	49.3	26.5				721.7	272.7	487.2	315.3							2 900	261	27	6.5	135.5	83.4	17.0	
2021/01/13			38.1	58.9	50.8	20.8				686.0	258.3	449.9	291.8							2 962	279	35	6.9	135.0	83.3	16.6	
2021/01/14			36.6	23.6	63.3	24.3				724.0	288.5	476.6	290.9							3 108	272	29	6.4	138.7	83.2	17.0	
2021/01/15			28.5	51.6	53.4	17.9				687.3	337.4	469.1	234.6							3 137	278	36	6.6	136.3	83.1	16.3	
2021/01/16			31.3	52.5	52.9	21.2				716.8	317.4	458.7	301.4							2 967	265	32	6.4	137.8	83.0	16.9	
2021/01/17			25.2	27.6	61.2	14.9				647.4	247.7	493.4	240.5							2 915	264	22	7.1	134.6	83.0	16.0	
2021/01/18			32.5	24.8	61.5	21.8				698.7	245.1	490.7	316.0							2 939	268	27	6.7	136.6	83.2	16.8	
2021/01/19			38.5	27.3	63.2	22.9				673.0	232.0	499.1	304.4							2 997	284	18	7.2	137.8	83.3	16.9	
2021/01/20			41.1		57.4	26.2				719.3	238.8	500.1	291.8							3 110	301	21	6.7	140.6	83.3	17.4	
2021/01/21			45.4	9.9	48.1	17.2				723.7	261.2	519.3	296.0							2 720	273	29	6.6	137.1	83.4	17.2	
2021/01/22			40.4		64.3	23.9				646.6		511.3	354.2							2 589	285	33	7.3	133.2	83.4	16.1	
2021/01/23			51.9		64.2	21.9				664.1		506.4	326.2							3 303	341	30	7.5	138.9	83.2	17.2	
2021/01/24			49.0			20.6				658.3			350.2							2 664	285	25	7.4	136.9	82.9	16.9	
2021/01/25			35.7			19.2				587.7	286.2	344.6	278.2							2 888	309	17	8.2	131.8	83.1	16.0	
2021/01/26			34.1	17.7	31.8	15.7				553.4	288.9	502.4	317.3							3 081	360	32	8.9	129.5	83.3	15.9	
2021/01/27			40.8	21.9		23.5		735.8	640.8	276.9		310.0	2 790	352	17	9.6	127.6	88.9	20.9	2 784	324	23	7.9	132.7	83.2	17.0	
2021/01/28		6.4	23.9	19.8		15.4		905.0	471.7	261.7	324.7	322.1	3 474	410	14	8.1	126.3	89.1	21.9	3 056	293	15	9.3	125.7	83.2	14.1	
2021/01/29		6.7	24.1	6.1	44.0	14.4		861.9	402.8	239.8	524.9	336.4	3 214	388	14	8.3	126.7	89.3	21.1	2 928	318	17	10.2	121.9	83.4	13.3	
2021/01/30			18.3	11.1	34.2	14.7				360.8	273.0	437.6	337.0							3 146	377	68	10.9	124.2	83.4	12.8	
2021/01/31			18.6	15.9	23.5	17.1				366.1	283.7	462.1	348.6							2 977	493	34	10.4	122.1	83.2	12.2	

Unit 1 is not yet in commercial operation. There is no reportable for the area shaded purple due to the grace period on reporting.

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Date	Unit 4 Final CEM mg/Nm ³			Unit 4 Other CEMS Data				Unit 5 Final CEM mg/Nm ³			Unit 5 Other CEMS Data				Unit 6 Final CEM mg/Nm ³			Unit 6 Other CEMS Data			
	SOx	NOx	CO	O ₂	°C	kPa	m/s	SOx	NOx	CO	O ₂	°C	kPa	m/s	SOx	NOx	CO	O ₂	°C	kPa	m/s
2021/01/01	3 405	390	35	7.7	120.0	89.4	7.3	3 141	407	13	7.2	126.1	89.3	11.7	2 497	323	33	9.1	132.0	89.4	8.1
2021/01/02	3 698	452	11	9.1	120.0	89.9	7.7	3 331	510	9	7.7	127.4	89.7	11.4	2 661	366	56	9.5	130.7	89.8	8.6
2021/01/03	3 475	421	20	9.6	120.0	89.9	7.3	3 153	501	1	9.2	120.6	89.8	10.2	2 423	339	49	9.7	128.7	89.9	8.5
2021/01/04	3 681	441	19	9.8	120.0	89.6	7.2	3 160	440	5	8.3	123.6	89.5	10.5	2 498	296	28	9.7	127.3	89.6	8.6
2021/01/05	3 391	404	4	10.5	120.0	89.4	7.8	3 132	391	4	8.7	118.6	89.3	9.4	2 393	330	22	10.3	127.0	89.3	8.6
2021/01/06	3 219	438	5	11.8	120.0	89.3	7.8	3 092	392	33	7.5	129.5	89.2	12.0	2 363	308	19	10.2	129.1	89.2	8.5
2021/01/07	3 310	485	25	12.6	120.0	89.5	7.5							2 387	329	55	9.1	134.8	89.4	9.7	
2021/01/08	3 254	498	31	13.0	120.0	89.5	8.1							2 411	323	43	9.1	135.3	89.4	9.4	
2021/01/09	2 122	478	11	11.1	120.0	89.3	8.0	3 127	513	14	8.7	124.7	89.1	12.1	2 460	289	26	9.8	131.5	89.3	8.2
2021/01/10	3 156	466	25	12.1	120.0	89.3	7.9	3 167	467	6	7.9	128.5	89.2	11.1	2 448	264	126	9.3	131.5	89.2	8.4
2021/01/11	2 012	537	19	11.0	120.0	89.4	7.3	3 187	464	11	7.9	130.5	89.3	10.6	2 376	315	23	9.3	137.2	89.4	9.0
2021/01/12	1 670	469	4	11.0	120.0	89.6	7.9	3 280	457	11	7.9	129.3	89.5	11.1	2 418	295	18	9.6	132.8	89.5	8.3
2021/01/13	2 651	453	15	11.1	120.0	89.6	7.5	3 265	509	5	8.5	131.0	89.5	10.7	2 314	341	19	10.0	134.7	89.5	8.0
2021/01/14	3 722	405	19	10.3	120.0	89.5	7.8	3 293	528	6	7.8	133.0	89.4	10.9	2 358	355	23	10.0	134.5	89.4	8.0
2021/01/15	3 769	440	19	10.1	120.0	89.3	9.0	3 476	610	5	7.9	134.9	89.1	10.8	2 502	354	16	11.1	128.8	89.2	7.1
2021/01/16	3 698	433	28	10.7	120.0	89.0	9.0	3 339	562	7	8.1	131.5	88.9	10.7	2 470	321	19	9.7	135.1	89.0	8.1
2021/01/17	3 494	463	3	11.8	120.0	89.1	7.8	3 284	536	5	7.8	130.0	88.9	11.2	2 474	328	13	10.6	129.3	89.0	6.9
2021/01/18	3 473	474	2	11.9	120.0	89.4	7.8	3 275	529	3	8.1	129.0	89.2	11.3	2 415	301	20	9.5	134.2	89.3	8.3
2021/01/19	3 438	490	2	12.0	120.0	89.5	7.5	3 145	526	3	8.2	129.2	89.4	11.6	2 251	363	20	10.0	132.4	89.5	8.3
2021/01/20	3 469	624	6	12.1	120.0	89.5	7.8	3 457	569	3	7.8	131.4	89.4	11.3	2 454	414	20	10.1	135.9	89.5	8.1
2021/01/21	3 638	526	4	11.3	120.0	89.8	7.8	3 338	483	7	7.5	126.6	89.6	11.4	2 333	343	14	9.9	132.4	89.7	7.9
2021/01/22								3 094	453	6	7.6	125.9	89.5	11.2	2 326	299	21	8.8	134.8	89.6	8.7
2021/01/23								3 118	475	5	7.7	123.7	89.4	11.1	2 674	357	20	9.2	136.2	89.3	8.4
2021/01/24														2 508	331	19	8.8	132.4	88.8	8.7	
2021/01/25	3 591	470	21	10.3	120.0	89.1	7.8	3 315	639	15	10.1	126.9	89.2	9.3	2 590	389	17	10.2	128.3	89.0	7.7
2021/01/26	4 359	488	15	10.3	120.0	89.4	7.8	3 465	601	7	7.5	133.5	89.4	11.2	2 745	373	30	9.1	129.7	89.4	7.9
2021/01/27	3 974	463	18	10.7	120.0	89.3	7.8							2 744	313	17	9.4	132.9	89.2	8.0	
2021/01/28	3 904	463	16	11.3	120.0	89.4	7.8	2 939	553	35	11.0	128.7	89.3	9.7	2 853	290	12	9.0	130.7	89.3	8.0
2021/01/29	3 871	503	5	12.1	120.0	89.7	7.8	3 598	542	12	6.8	137.8	89.5	11.2	2 773	289	17	8.5	131.8	89.5	8.0
2021/01/30	4 161	474	16	10.9	120.0	89.6	7.8	3 390	499	15	8.6	126.2	89.4	10.4	2 872	285	22	8.4	131.7	89.5	8.0
2021/01/31	4 271	473	19	10.5	120.0	89.3	7.8	3 660	511	11	7.4	128.4	89.2	10.1	2 838	293	25	8.2	134.3	89.3	8.2

Note: There is no reportable data on areas shaded grey; this is a result of unit trip, outage and or grace period.

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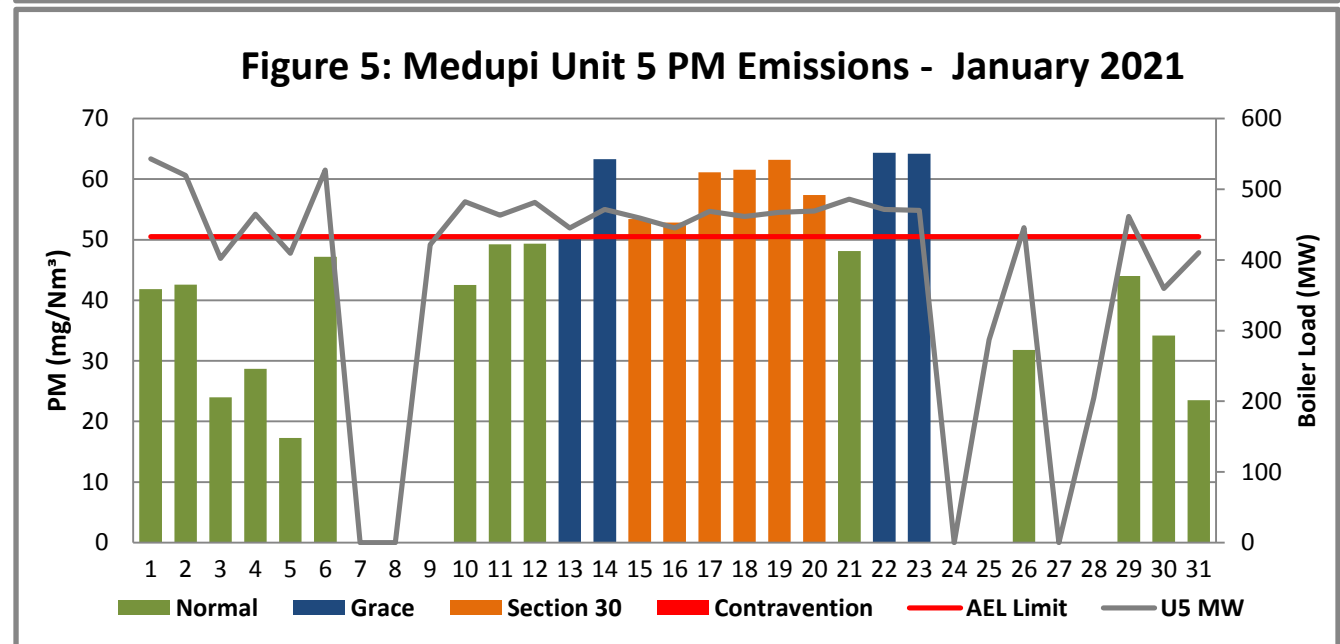
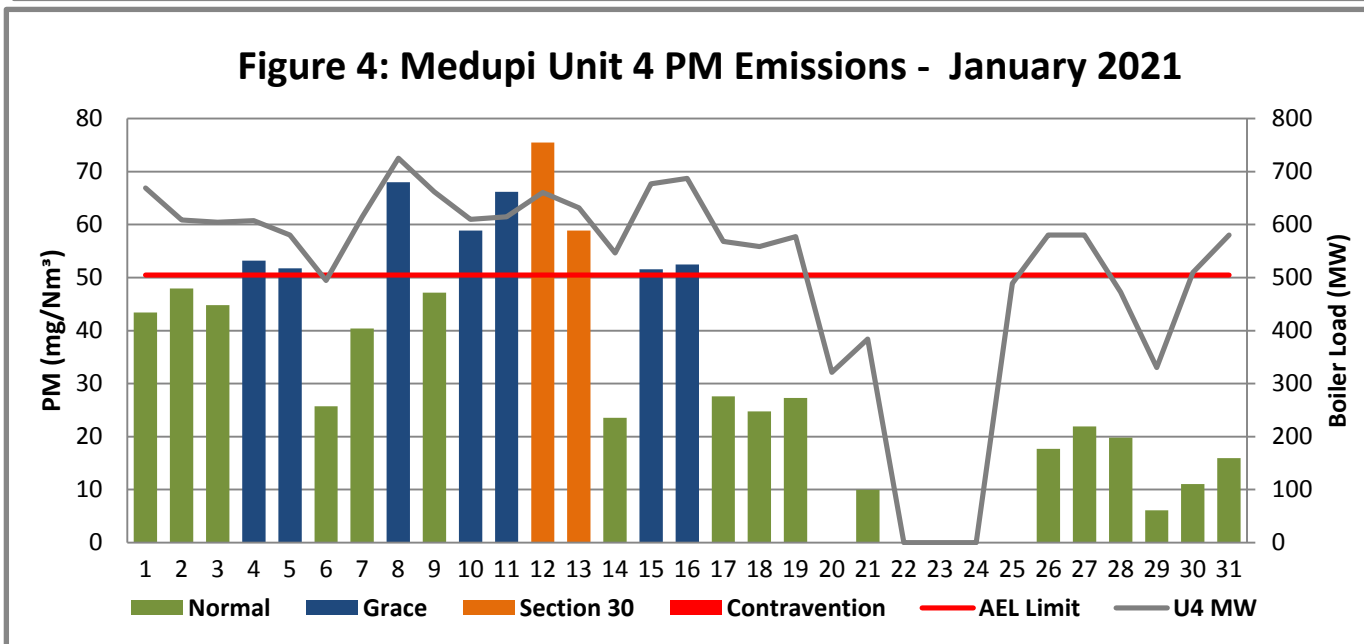
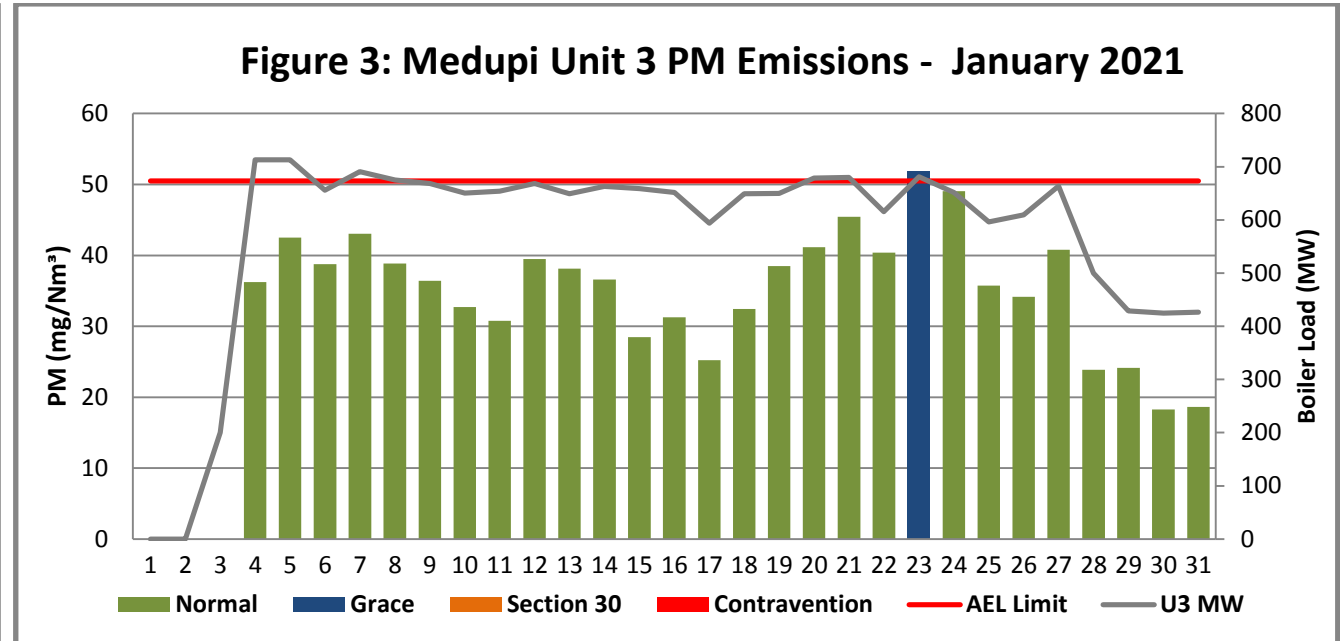
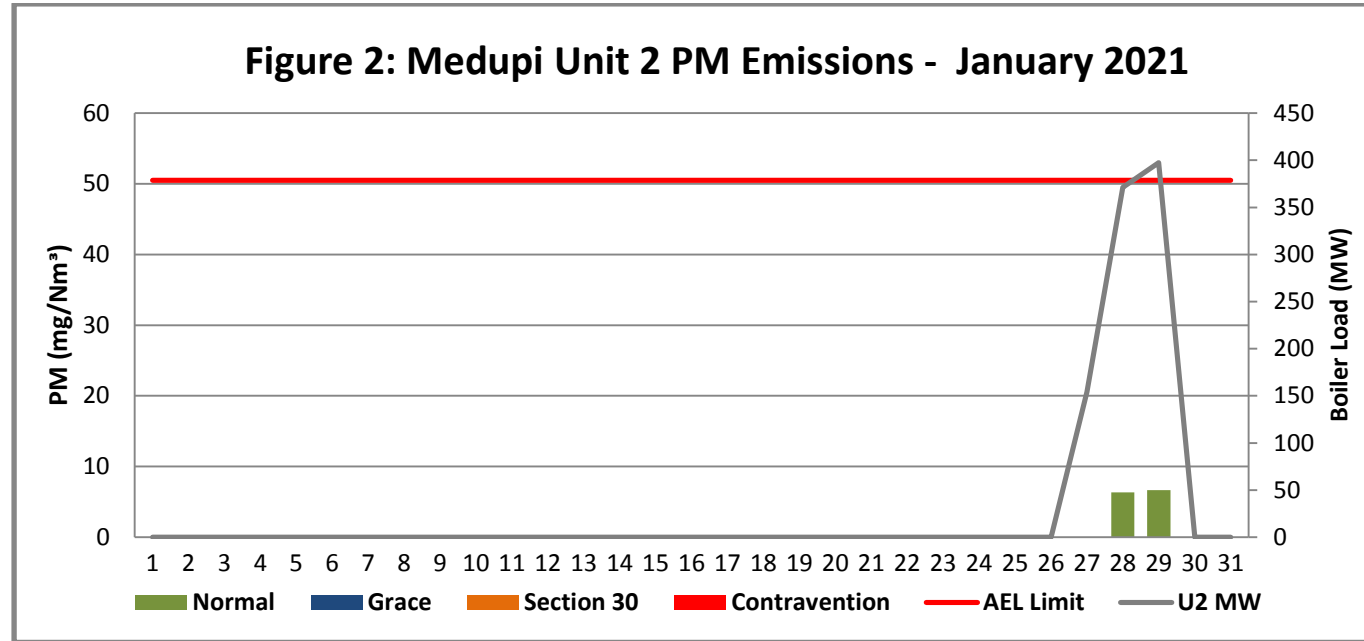
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Medupi Power Station graphical representation of the daily average emissions

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Figure 6: Medupi Unit 6 PM Emissions - January 2021

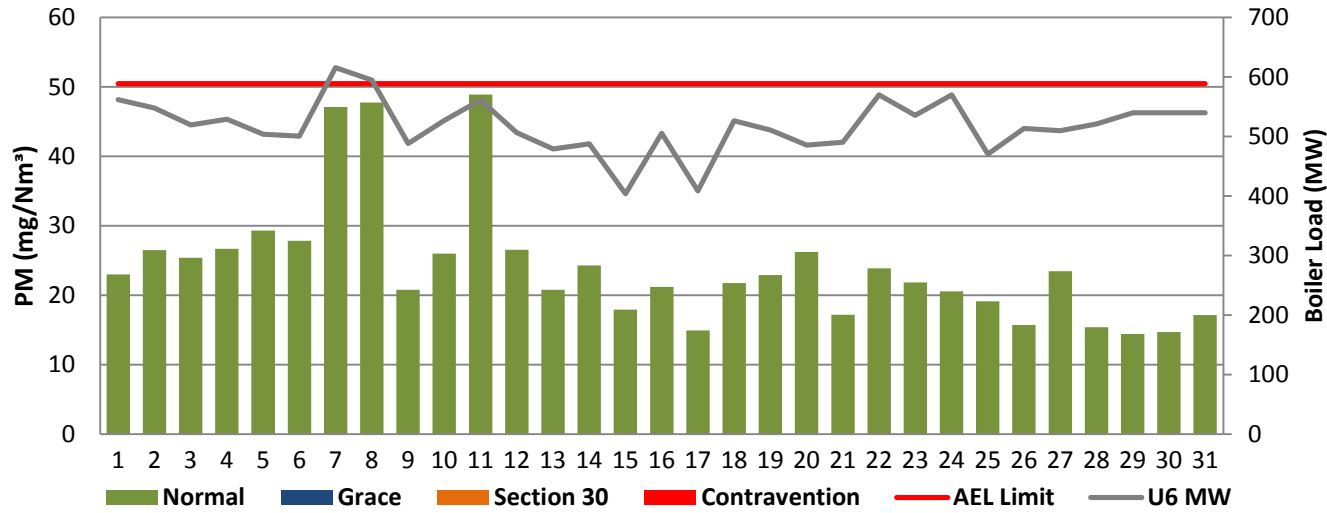


Figure 8: Medupi Unit 2 SOx Emissions - January 2021

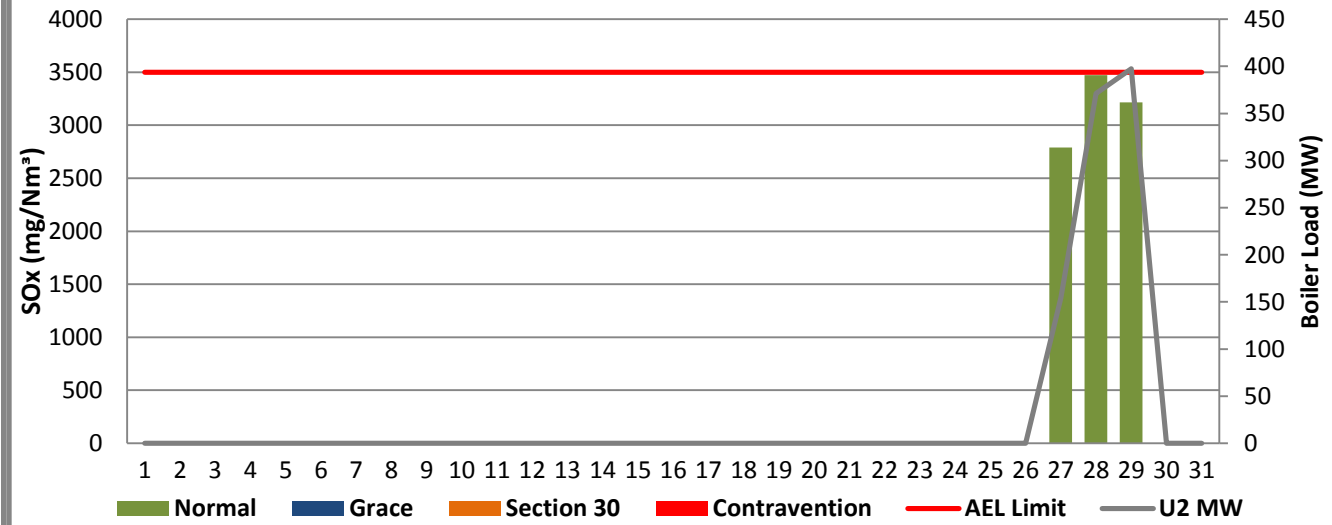
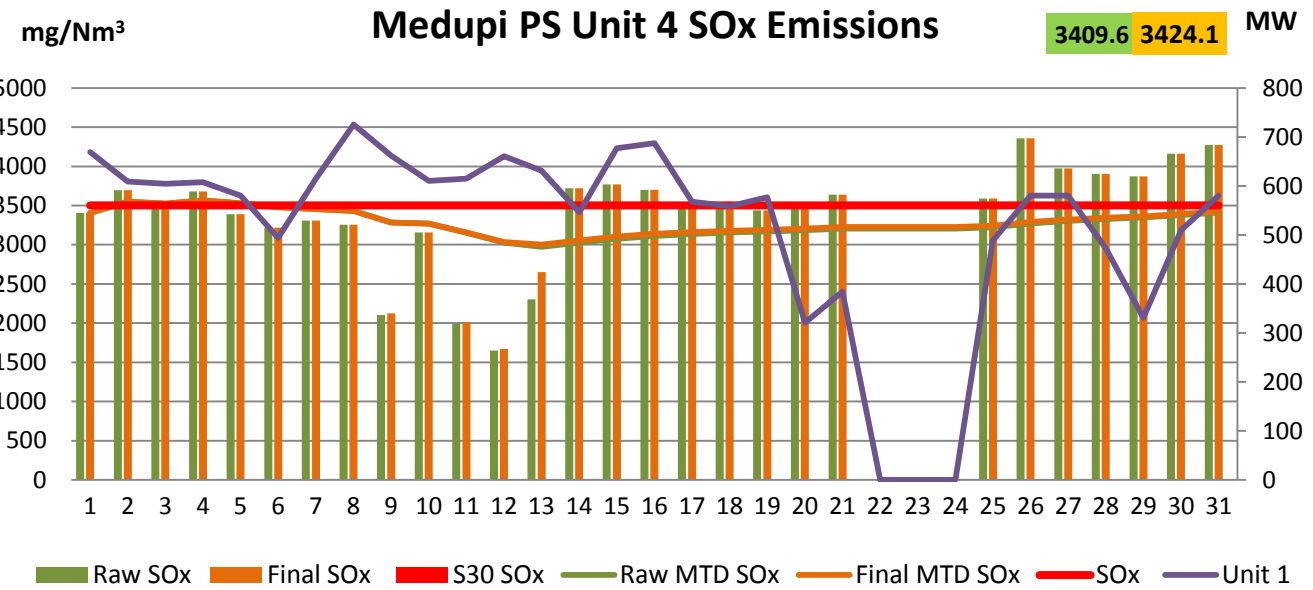
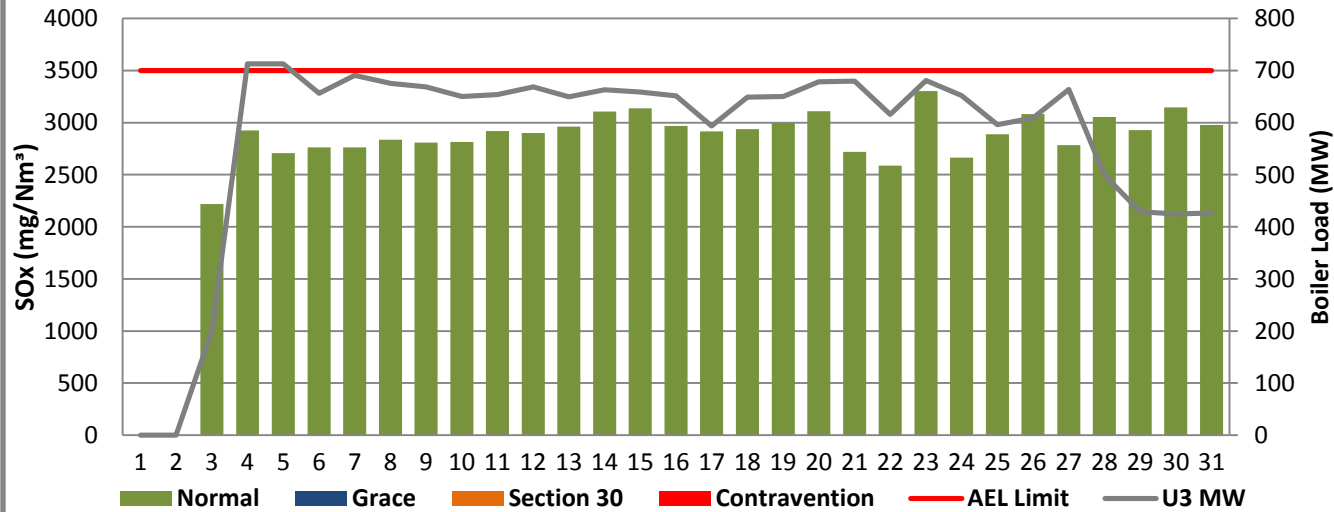


Figure 9: Medupi Unit 3 SOx Emissions - January 2021



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Figure 11: Medupi Unit 5 SOx Emissions - January 2021

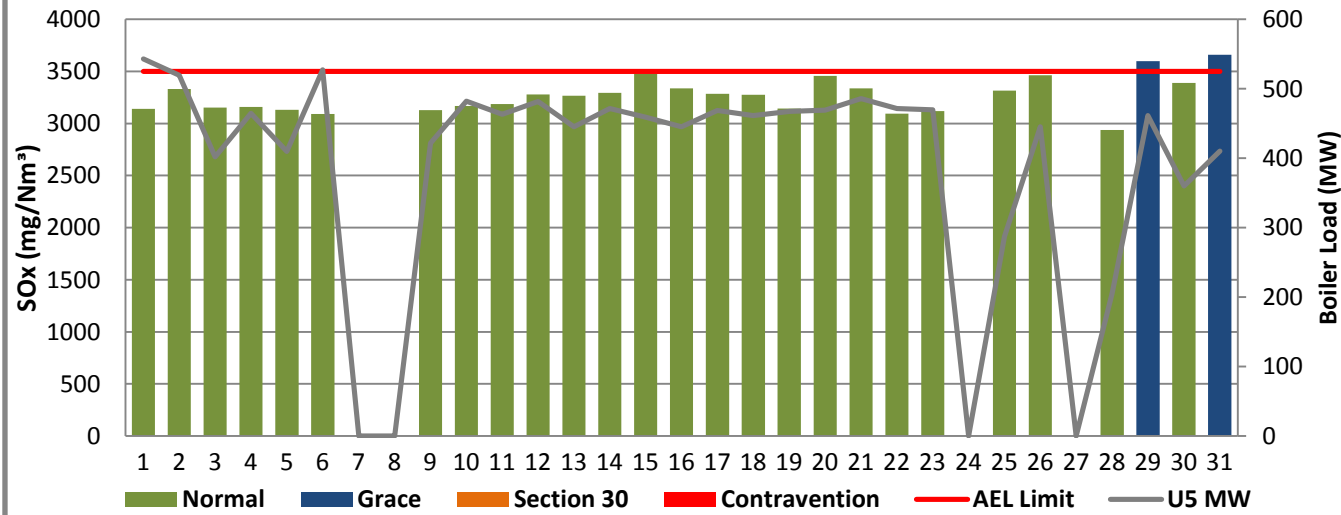


Figure 12: Medupi Unit 6 SOx Emissions - January 2021

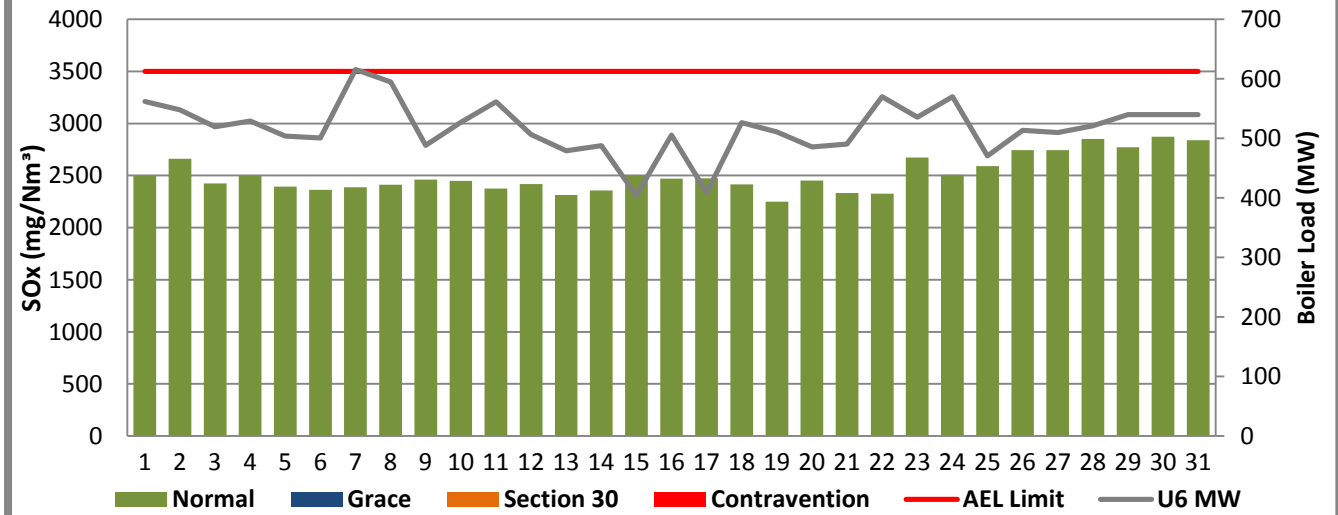


Figure 14: Medupi Unit 2 NOx Emissions - January 2021

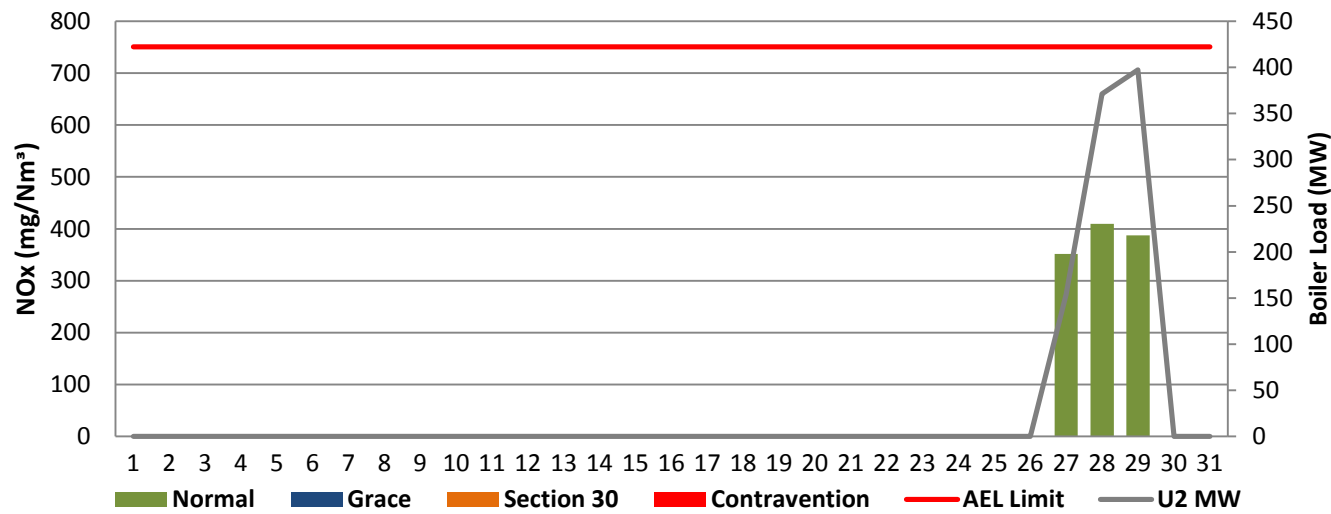
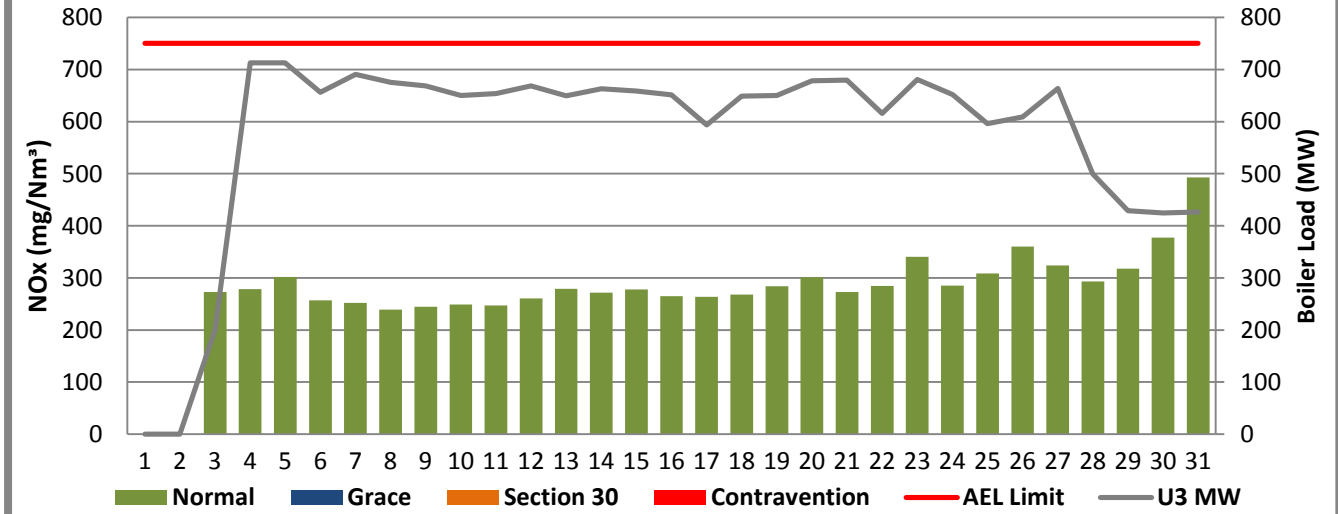


Figure 15: Medupi Unit 3 NOx Emissions - January 2021



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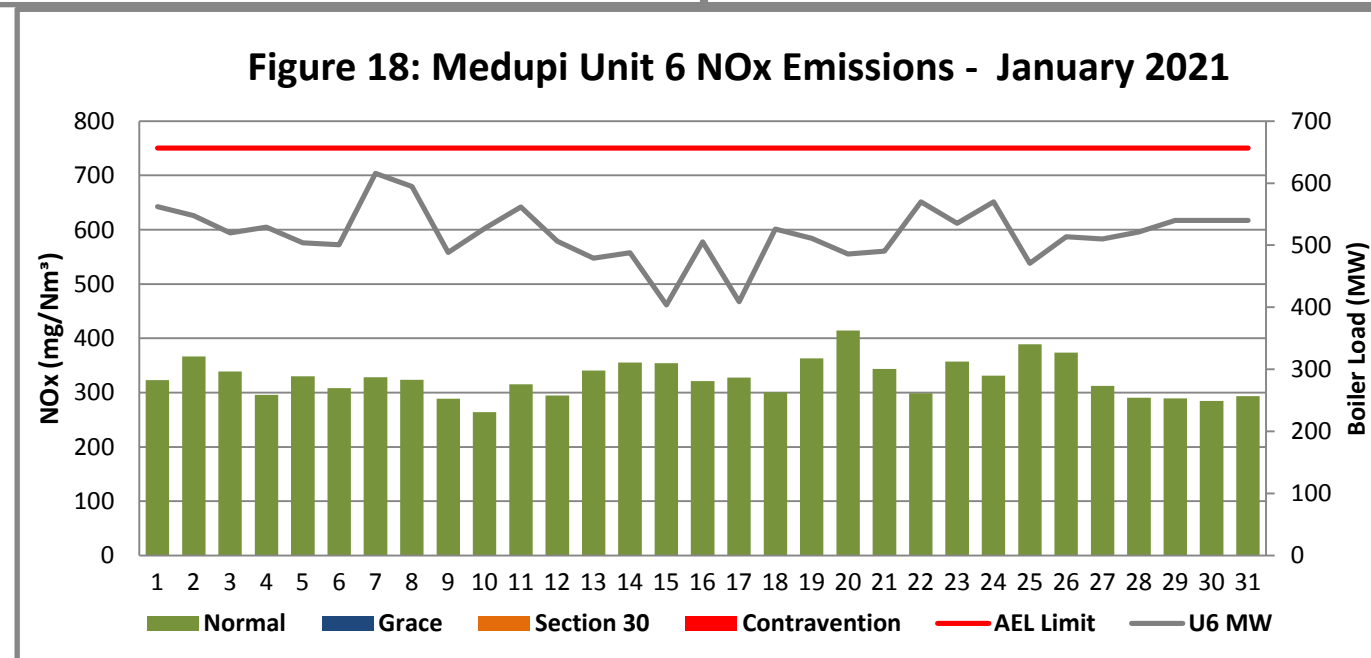
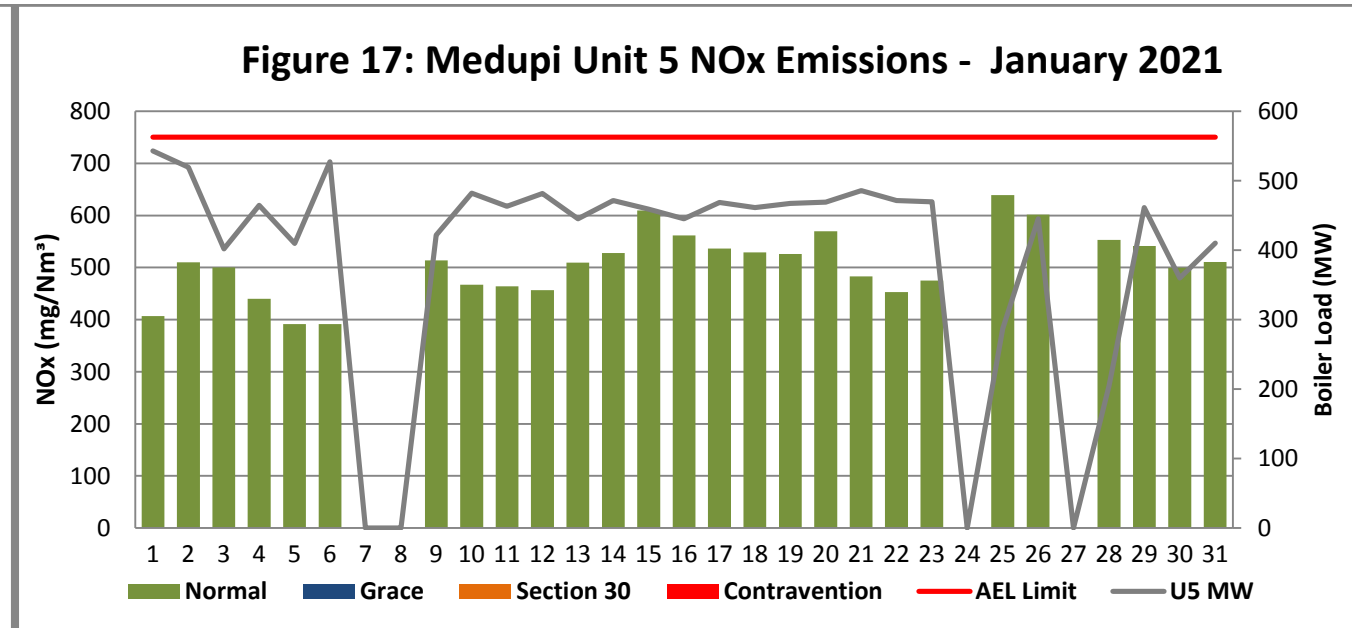
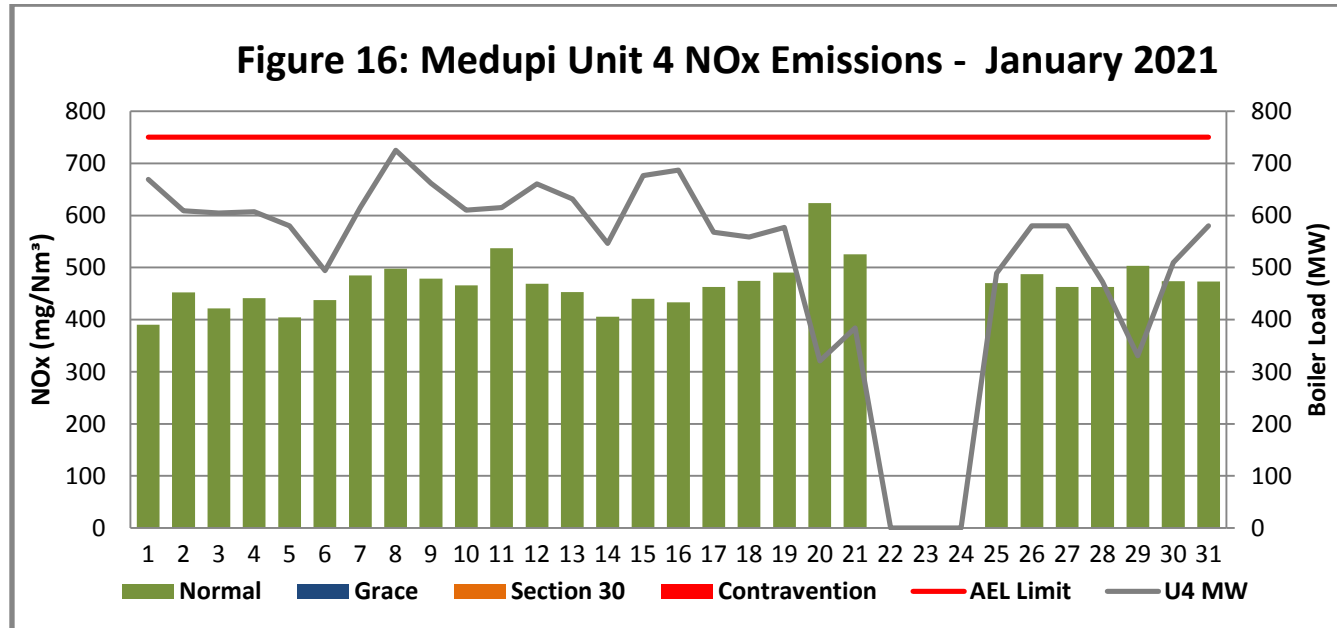
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Medupi Power Station graphical representation of the daily average emissions

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Table 7: Monthly tonnages for the month of January 2021

Unit	PM (tons)	SO ₂ (tons)	NO ₂ (tons)	CO (tons)
1	-	-	-	-
2	0.2	198	23	1
3	52.9	4 362	429	52
4	51.9	4 403	594	21
5	50.6	4 123	628	11
6	34.5	3 524	456	40
SUM	190.1	16 610	2 130	125

5. Shutdown/start-up information


Table 8: PM Start-up information for the month of January 2021

Unit No.	2		4		4		5	
Breaker Open (BO)	06:25 AM	2021/01/29	09:10 PM	2021/01/19	10:30 PM	2021/01/21	10:45 PM	2021/01/06
Draught Group (DG) Shut Down (SD)	06:25 AM	2021/01/29	09:25 PM	2021/01/19	03:35 PM	2021/01/22	10:50 PM	2021/01/06
BO to DG SD (duration)	00:00:00	DD:HH:MM	00:00:15	DD:HH:MM	00:17:05	DD:HH:MM	00:00:05	DD:HH:MM
Fires in time	03:55 AM	2021/01/31	11:15 PM	2021/01/19	08:50 PM	2021/01/24	02:45 AM	2021/01/07
Synch. to Grid (or BC)	03:10 AM	2021/02/01	03:35 PM	2021/01/20	05:15 AM	2021/01/25	01:35 PM	2021/01/09
Fires in to BC (duration)	00:23:15	DD:HH:MM	00:16:20	DD:HH:MM	00:08:25	DD:HH:MM	02:10:50	DD:HH:MM
Emissions below limit from BC (end date)	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit
Emissions below limit from BC (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM	n/a	DD:HH:MM	n/a	DD:HH:MM

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6. Comments on the performance and availability of each unit

Medupi Power station Unit 4 and 5 exceeded the daily average emissions limit for particulates; the incidents were reported in terms of NEMA section 30. Unit 6 particulate emissions exceedances fell within the grace period. There were no exceedances for NOx emissions in all the operating units. Unit 2 was on outage for most of January 2021.

7. Continuous Emission Monitoring Systems (CEMS)

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

Table 7: Periods during which CEMS was inoperative

Date	Time	CEMS status	Comments
N/A	N/A	N/A	N/A

Table 8: CEMS Monitor Reliability

Associated Unit/Stack	PM	SO ₂	NO	O ₂
Unit 1	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Unit 2	96.8	96.9	96.9	93.9
Unit 3	100.0	99.6	100.0	97.5
Unit 4	99.8	99.4	78.8	86.2
Unit 5	99.7	99.5	99.5	98.8
Unit 6	100.0	100.0	100.0	100.0


8. CEMS Calibration certificates and equipment used for calibration

See attached Appendix A

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9. Ambient Air Quality Monitoring Report

The Ambient Air Quality Monitoring and Dust fall-out report are emailed to the Licensing authority on a monthly basis.

10. Visual inspection of the exterior walls of the fuel oil tanks, fuel oil inventory data 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 January 2021

		
CALCULATION OF EMISSIONS OF TOTAL VOLATILE COMPOUNDS FROM FUEL OIL STORAGE TANKS*		
Date:	31 January 2021	
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 <i>blue cells</i> below Choose from a dropdown menu in the <i>green cells</i> The total VOC emissions for the month are in the <i>red cells</i> IMPORTANT: Do not change <i>any</i> other cells without consulting the AQ CoE		
MONTH:	January	
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:	3056	tons/month
Molecular weight of the fuel oil:	166.00	Lb/lb-mole
METEROLOGICAL DATA FOR THE MONTH	Data	Unit
Daily average ambient temperature	25.11	°C
Daily maximum ambient temperature	31.57	°C
Daily minimum ambient temperature	17.48	°C
Daily ambient temperature range	14.10	°C
Daily total insolation factor	5.87	kWh/m ² /day
Tank paint colour	Aluminum/Specular	NA
Tank paint solar absorbance	0.39	NA
FINAL OUTPUT:	Result	Unit
Breathing losses:	0.74	kg/month
Working losses:	0.09	kg/month
TOTAL LOSSES (Total TVOC Emissions for the month):	0.82	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, Trittech 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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11. Air quality improvements initiatives and public education and awareness campaigns

No awareness campaign.

12. Complaints Register


Table 10: Complaints for the month of January 2021

Source Code/ Name	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
N/A	No complaints received	N/A	N/A	N/A	N/A

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Compiled by: Lufuno Tshidzumba 
Senior Environmental Advisor

Verified by: Malose Langa 
System Engineer Boiler

Verified by: Petri De Kock 
System Engineer C&I

Supported by: Sithokozile Hlongwa 
Boiler Engineering Manager

Supported by: Rosetta Rammutla 
Environmental Manager

Supported by: Jabulani Mkhathswa 
Engineering Group Manager

I Wikus Janse Van Rensburg, declares that the information provided in this report is accurate and correct.

Yours sincerely




Wikus Janse Van Rensburg
GENERAL MANAGER: MEDUPI POWER STATION

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APPENDIX 1: CEMS Calibration certificates

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