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Date:
18 December 2024

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LRP01PLA000 _0432/20241211

Dear Mr. Mkhathshwa

LETHABO POWER STATION EMISSION MONTHLY REPORT FOR NOVEMBER 2024

Please find attached Lethabo Power Station emission report for the month of November 2024.

Also attached are the Ambient Air Quality Monitoring Report, Complaints Register and the Fugitive Dust Fallout Monitoring Report for November 2024.

For any additional information please do not hesitate to contact us.

Yours sincerely

Karabo Rakgolela
GENERAL MANAGER

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Eskom Holdings SOC Ltd Reg No 2002/015527/30

Report name: **Lethabo Power Station
November 2024
Emission Report**

Reference number: **LRP01PLA000 _0432/20241211**
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Date: 18/12/2024

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LETHABO POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License FDDM-MET-2011-08-P1


1. RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Nov 2024
	Coal	Tons	2 000 000	1 013 955
	Fuel Oil	Tons	1 700	788.070
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Indicative Production Rate Nov-2024
	Energy	GWh	2 743.200	1 397.397
	Ash	Tons	770 000	366 139.237
	RE Ash	kg/MWh	Not Specified	262.015

Note: Maximum energy rate is as per the maximum capacity stated in the AEL: $[3\,810\text{ MW}] \times 24\text{ hrs} \times \text{days in Month}/1000$ to convert to GWh.

2. ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.656 (Standard)	0.710
Ash Content	%	37.37 (Standard)	36.110

Note: The "standard" is not necessary a limit, but merely a optimum indication, it will fluctuate as the coal quality changes. The Stipulated Range are the Station acceptance test values.

3. EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO _x
Unit 1	100	3500	1100
Unit 2	100	3500	1100
Unit 3	100	3500	1100
Unit 4	100	3500	1100
Unit 5	100	3500	1100
Unit 6	100	3500	1100

4. ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Nov-2024	Technology Type	SO ₃ Utilization Nov-2024
Unit 1	Electrostatic Precipitator (ESP)	99.84%	SO ₃	100.0%
Unit 2	Electrostatic Precipitator (ESP)	99.78%	SO ₃	96.6%
Unit 3	Electrostatic Precipitator (ESP)	Unit Off-line	SO ₃	Off-line
Unit 4	Electrostatic Precipitator (ESP)	99.51%	SO ₃	99.2%
Unit 5	Electrostatic Precipitator (ESP)	99.66%	SO ₃	97.5%
Unit 6	Electrostatic Precipitator (ESP)	99.89%	SO ₃	99.2%

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

5. MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO
Unit 1	99.4	100.0	100.0
Unit 2	99.4	100.0	100.0
Unit 3	0.0	0.0	0.0
Unit 4	99.3	100.0	100.0
Unit 5	94.4	100.0	100.0
Unit 6	98.5	99.9	100.0

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

6. EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of November 2024

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	162.8	3 410	1 817
Unit 2	46.0	792	289
Unit 3	0.0	0	0
Unit 4	299.3	3 410	1 399
Unit 5	203.7	2837	1133
Unit 6	96.4	3 474	1 709
SUM	808.2	13 923	6 346

Table 6.2: Operating days in compliance to PM AEL Limit - November 2024

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average PM (mg/Nm³)
Unit 1	25	4	0	0	4	78.9
Unit 2	4	4	0	0	4	109.1
Unit 3	OFF	OFF	OFF	OFF	OFF	OFF
Unit 4	13	16	0	1	17	141.2
Unit 5	11	10	0	0	10	128.3
Unit 6	26	1	0	0	1	66.4
SUM	79	35	0	1	36	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - November 2024

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average SO ₂ (mg/Nm³)
Unit 1	30	0	0	0	0	1 578.2
Unit 2	9	0	0	0	0	1 675.5
Unit 3	0	0	0	0	0	
Unit 4	30	0	0	0	0	1 617.9
Unit 5	23	0	0	0	0	1 641.6
Unit 6	29	0	0	0	0	1 825.4
SUM	121	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - November 2024

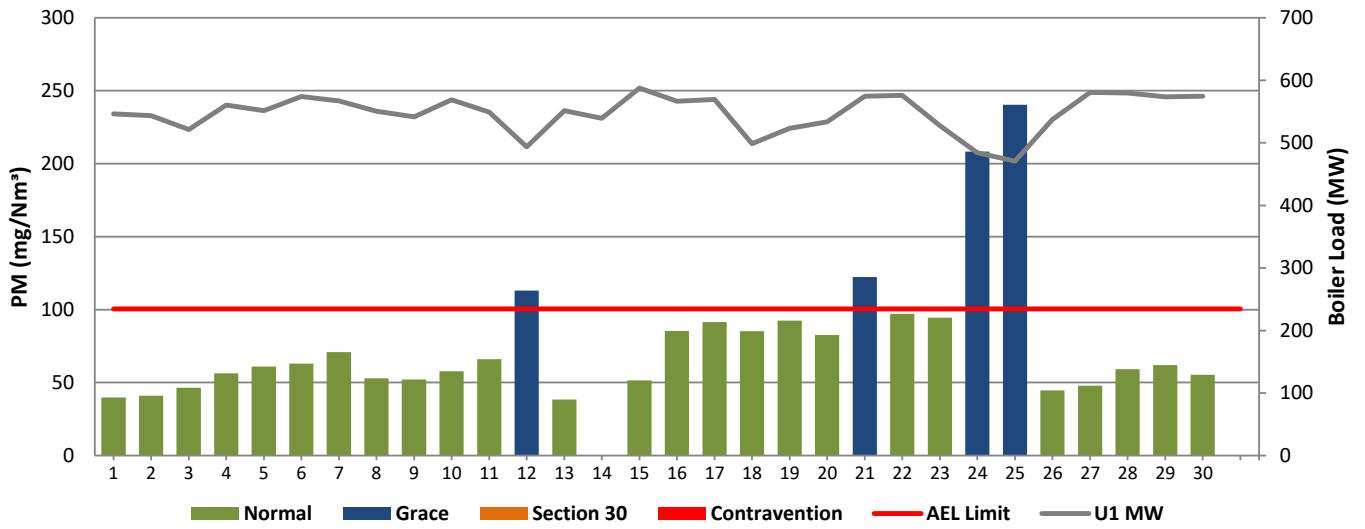
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Unit 1	30	0	0	0	0	838.4
Unit 2	9	0	0	0	0	605.4
Unit 3	0	0	0	0	0	
Unit 4	30	0	0	0	0	659.4
Unit 5	23	0	0	0	0	656.5
Unit 6	29	0	0	0	0	894.1
SUM	121	0	0	0	0	

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

Table 6.5: Legend Description

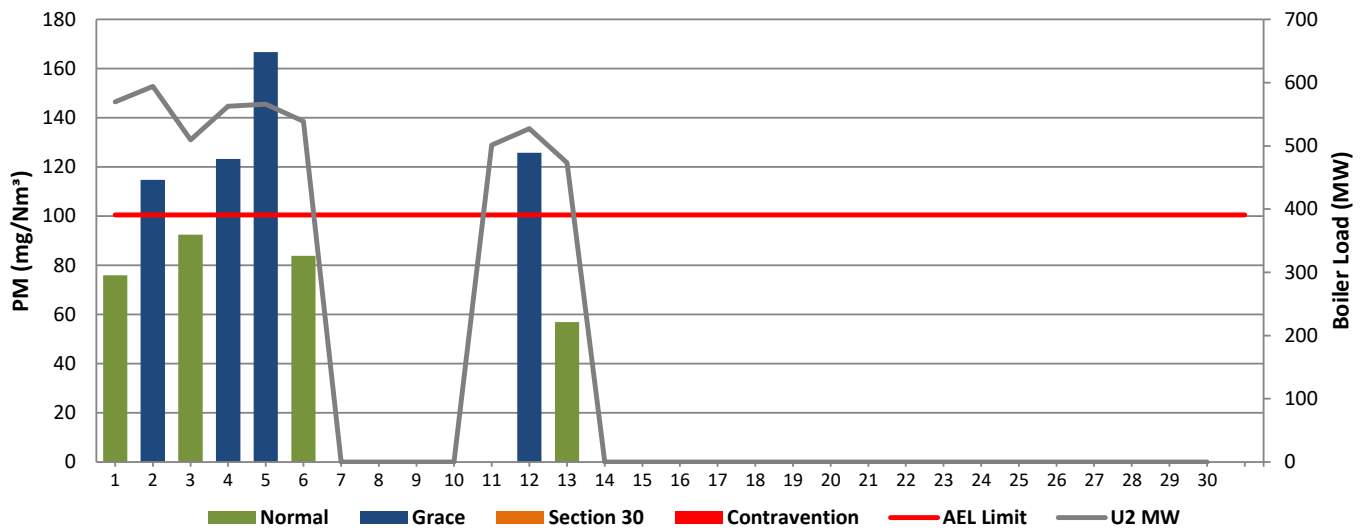
Condition	Colour	Description
Normal	GREEN	Emissions below Emission Limit Value (ELV)
Grace	BLUE	Emissions above the ELV during grace period
Section 30	ORANGE	Emissions above ELV during a NEMA S30 incident
Contravention	RED	Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Lethabo Unit 1 PM Emissions - November 2024



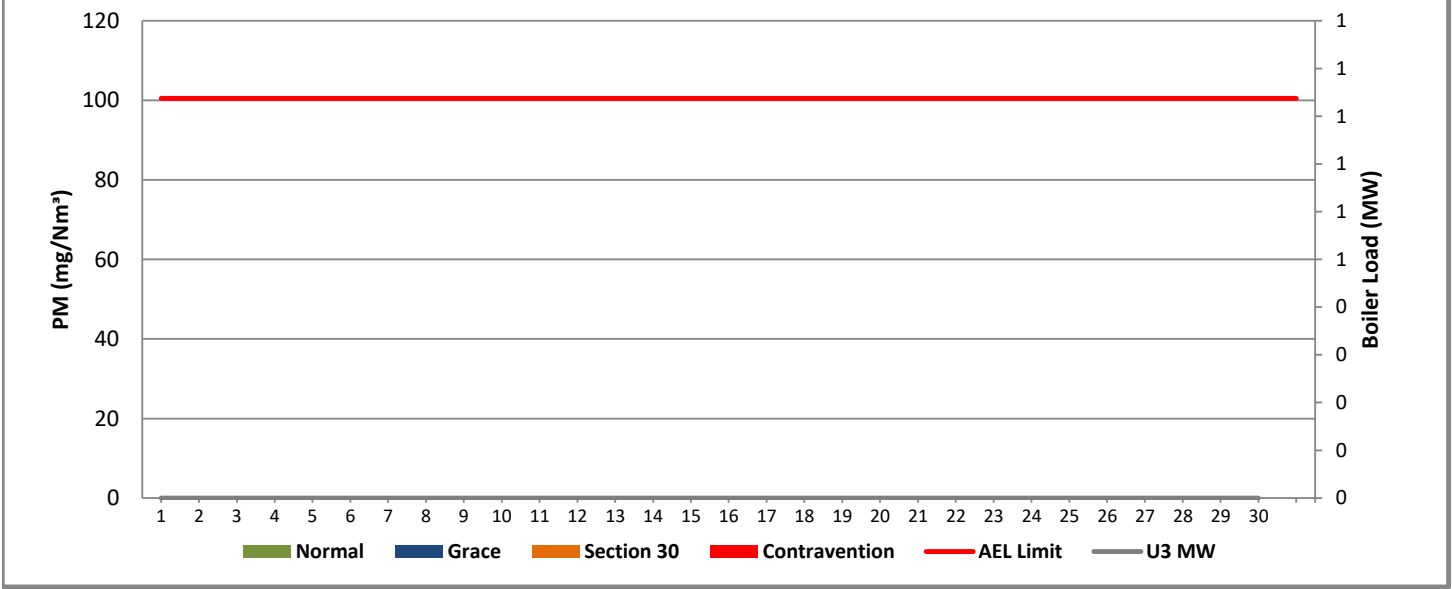
Reasons:	
Date	Description:
12-Nov	Routine manual rapping
21-Nov	Manual rapping done. Poor esp Casing performance (LHO/RHI).
24-Nov	LHO ESP casing outage
25-Nov	RHI ESP casing outage

Figure 2: Lethabo Unit 2 PM Emissions - November 2024



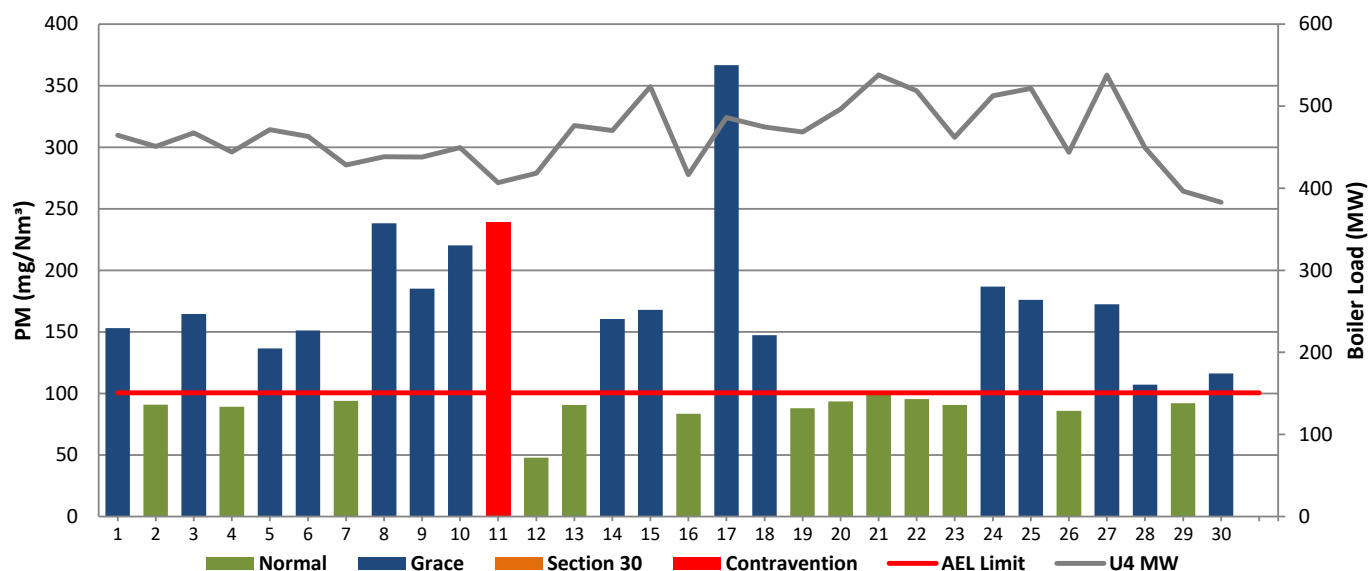
Reasons:	
Date	Description:
02-Nov	Poor ESP performance
04-Nov	Poor ESP performance
05-Nov	ESP poor performance.
12-Nov	Manual rapping done.

Figure 3: Lethabo Unit 3 PM Emissions - November 2024



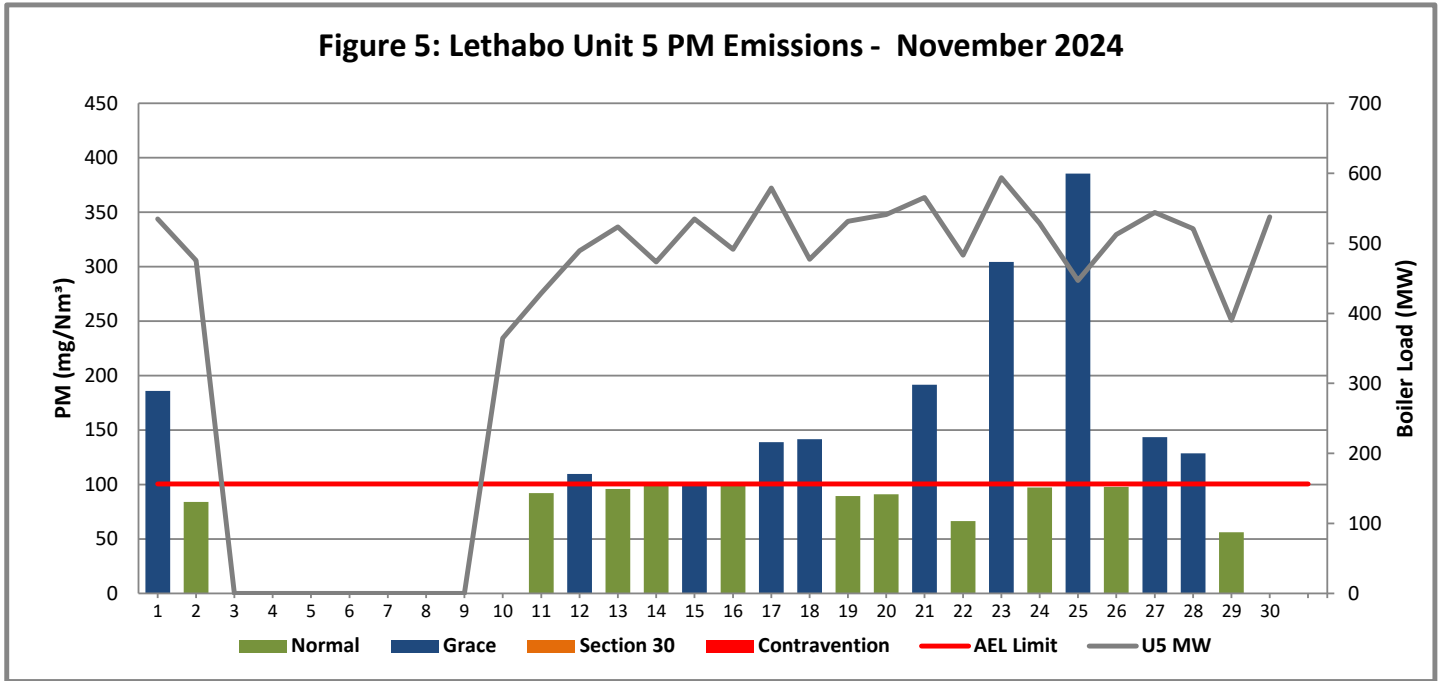
Reasons:	
Date	Description:

Figure 4: Lethabo Unit 4 PM Emissions - November 2024



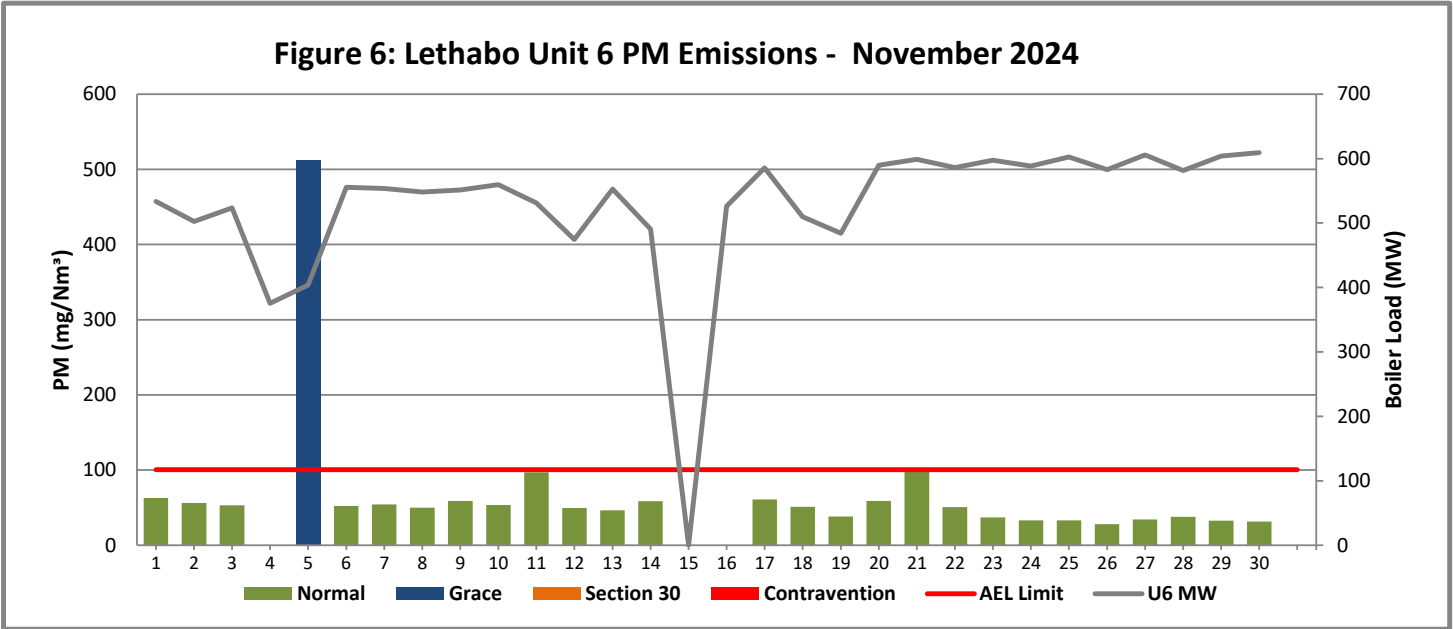
Reasons:	
Date	Description:
03-Nov	Poor ESP casing performance & Manual rapping done.
05-Nov	Poor ESP casing performance.
06-Nov	Poor ESP casing performance + Dust plant issues.
08-Nov	Poor ESP casing performance & RHO Casing Outage.
09-Nov	RHO Casing washing
10-Nov	RHO Casing washing
11-Nov	RHO Casing washing
14-Nov	Clean rapping brought forward & Poor ESP casing performance.
15-Nov	Poor ESP casing performance & Manual rapping done.
17-Nov	RHI casing outage
18-Nov	RHI casing outage + Manual rapping carried out and stopped due to Compartment 1 full of ash.
24-Nov	ESP casing poor performance & De-energise rapping done + B bucket elevator standing.
25-Nov	ESP poor casing performance & Clean rapping done + Faulty ESP rappers.
27-Nov	Poor ESP casing performance & Manual rapping done.
28-Nov	Poor ESP casing performance.
30-Nov	Manual rapping.

Figure 5: Lethabo Unit 5 PM Emissions - November 2024



Reasons:	
Date	Description:
12-Nov	Poor ESP casing performance (LHO).
15-Nov	Poor ESP casing performance (LHO).
17-Nov	Poor ESP casing performance.
18-Nov	ESP casing outage (LHO)
21-Nov	SO3 plant leak investigation & Poor ESP casing performance.
23-Nov	Poor ESP casing performance & Manual rapping done.
25-Nov	RHI ESP casing outage.
27-Nov	Poor ESP casing performance & Clean rapping brought forward.
28-Nov	Poor ESP casing performance (Unavailability of spares).

Figure 6: Lethabo Unit 6 PM Emissions - November 2024



Reasons:	
Date	Description:
2024/11/03	Light-up conditions.

Figure 7: Lethabo Unit 1 SO₂ Emissions - November 2024

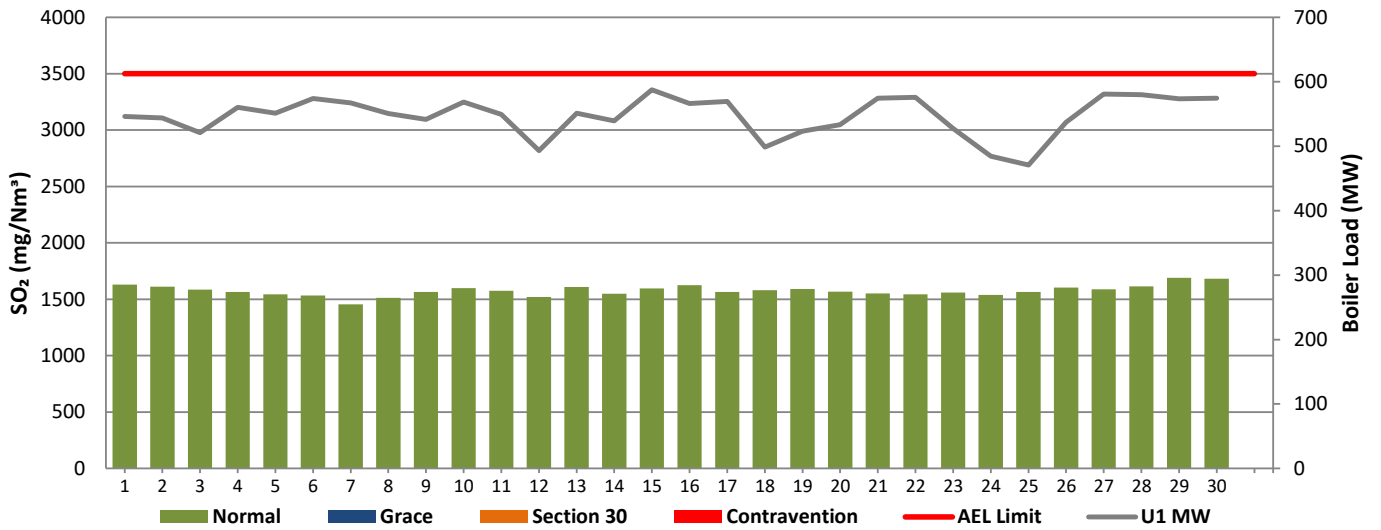


Figure 8: Lethabo Unit 2 SO₂ Emissions - November 2024

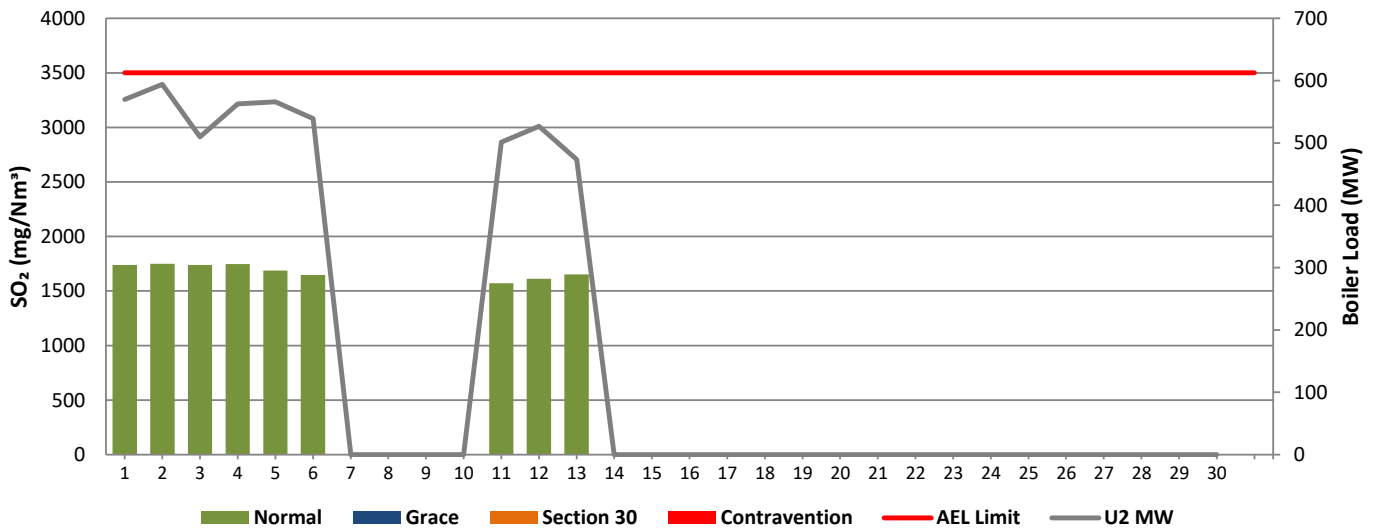


Figure 9: Lethabo Unit 3 SO₂ Emissions - November 2024

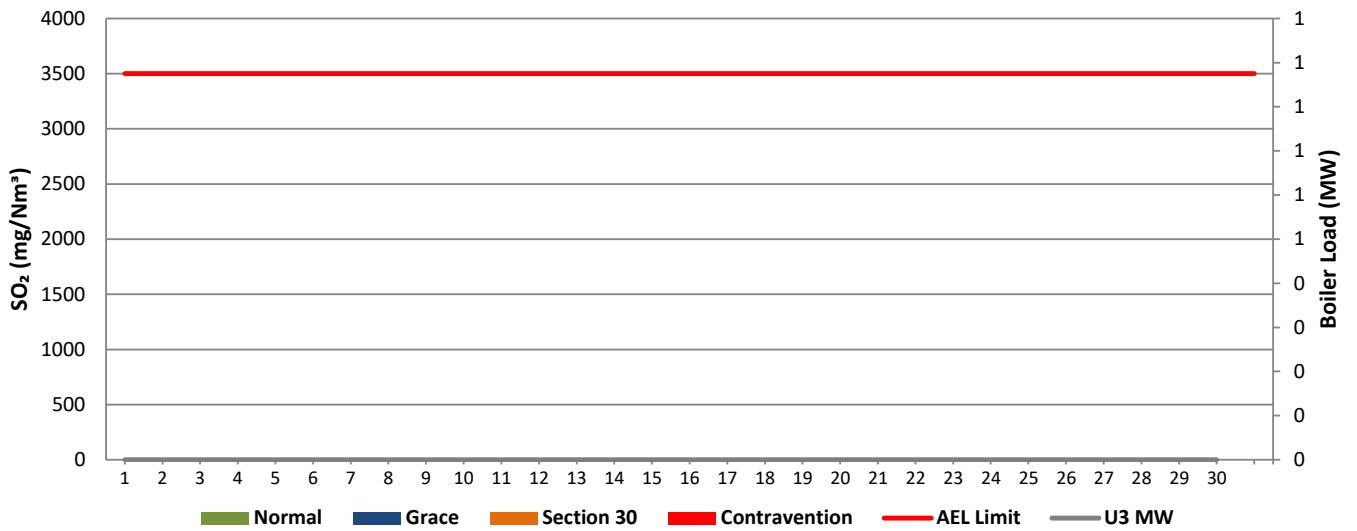


Figure 10: Lethabo Unit 4 SO₂ Emissions - November 2024

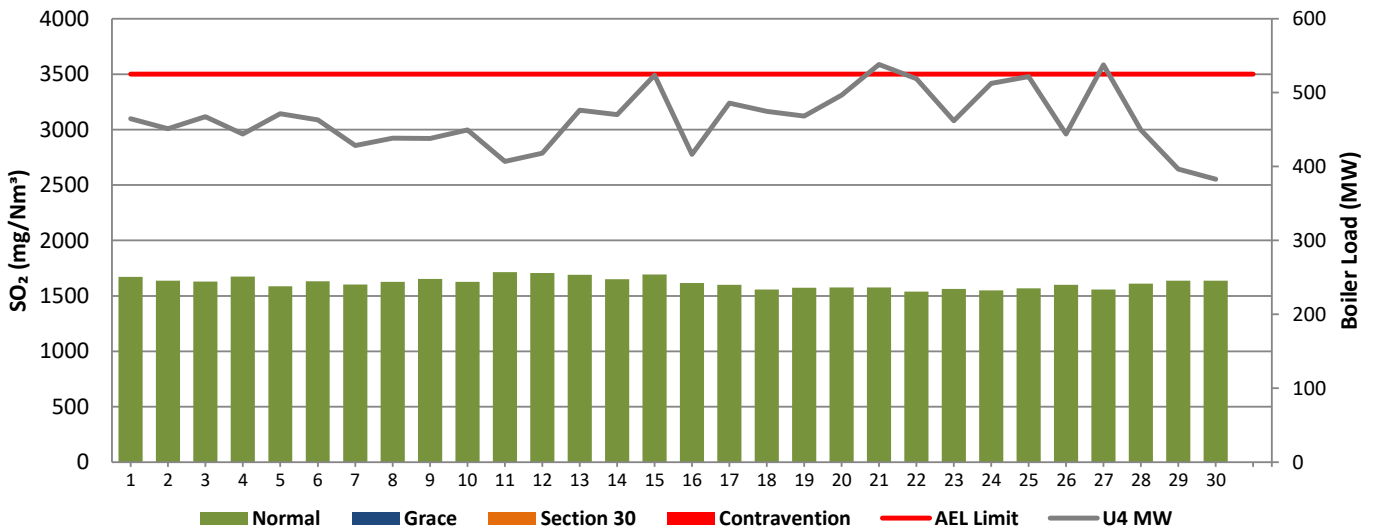


Figure 11: Lethabo Unit 5 SO₂ Emissions - November 2024

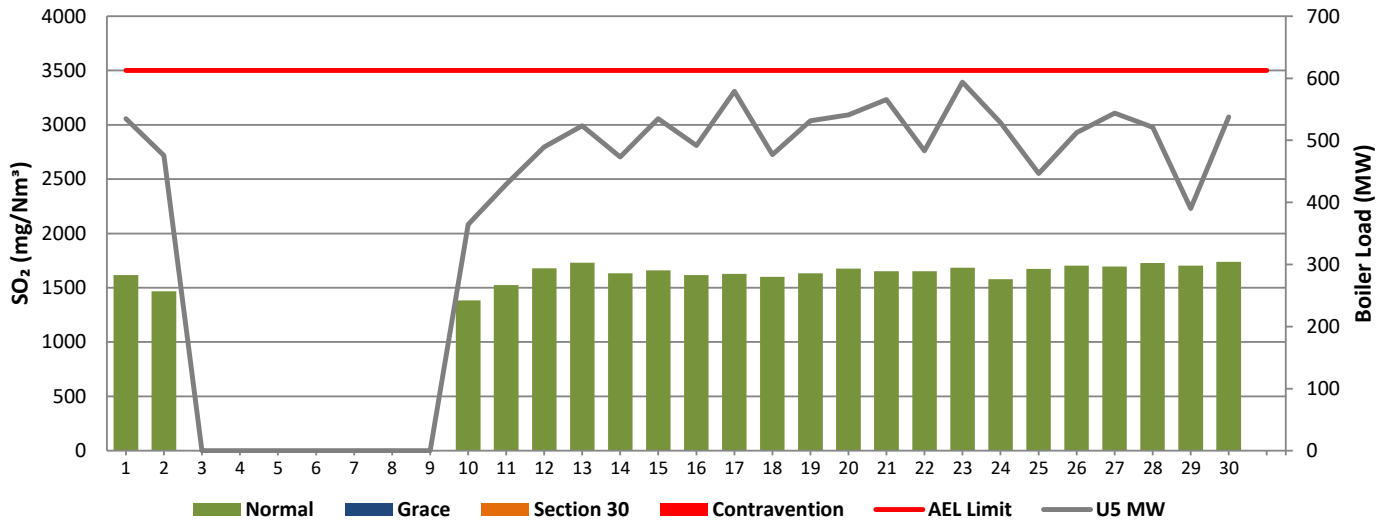


Figure 12: Lethabo Unit 6 SO₂ Emissions - November 2024

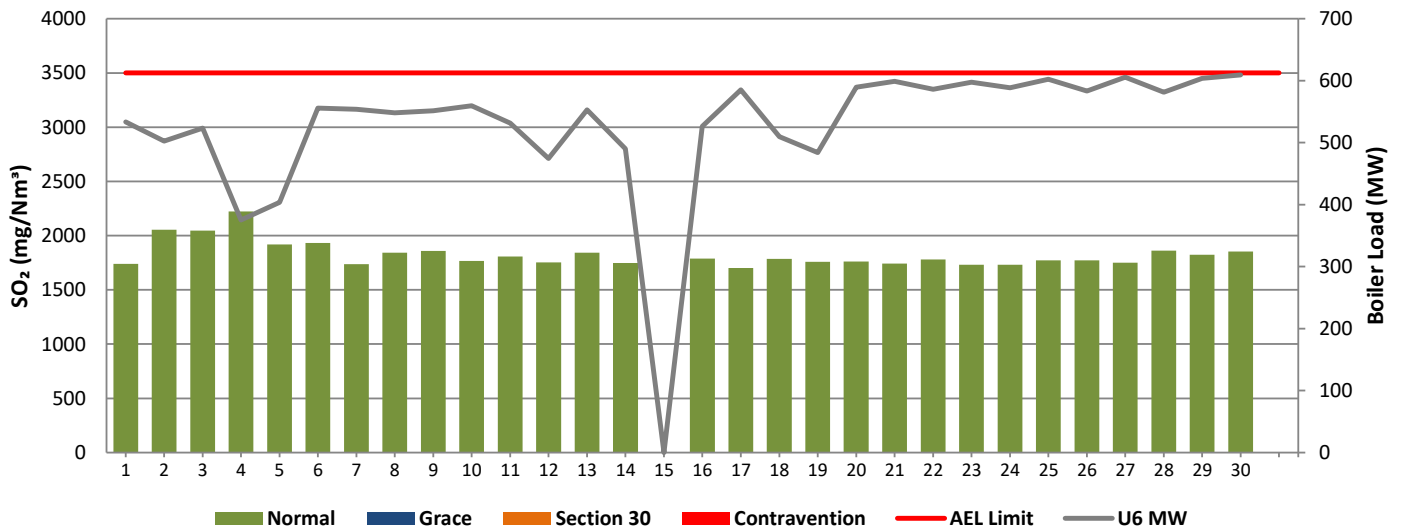


Figure 13: Lethabo Unit 1 NOx Emissions - November 2024

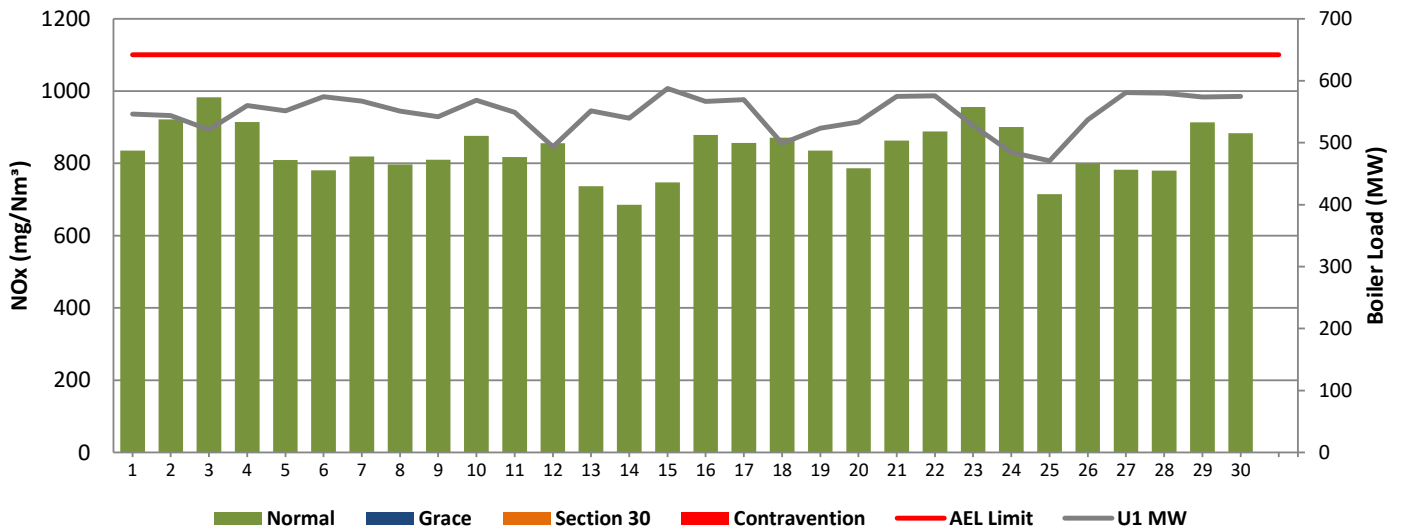


Figure 14: Lethabo Unit 2 NOx Emissions - November 2024

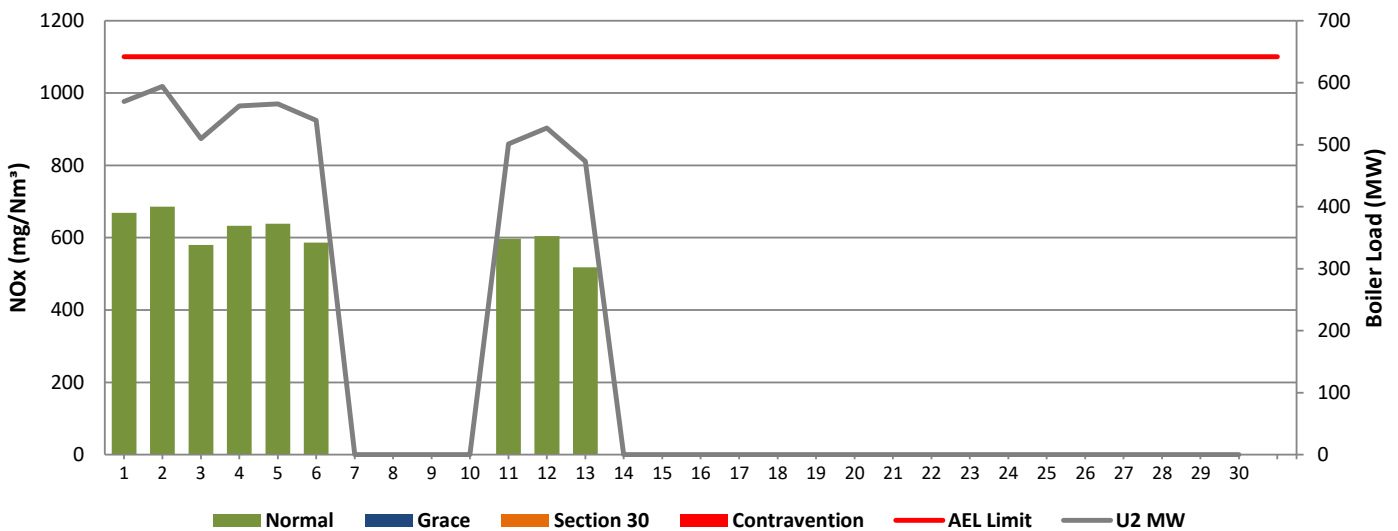


Figure 15: Lethabo Unit 3 NOx Emissions - November 2024

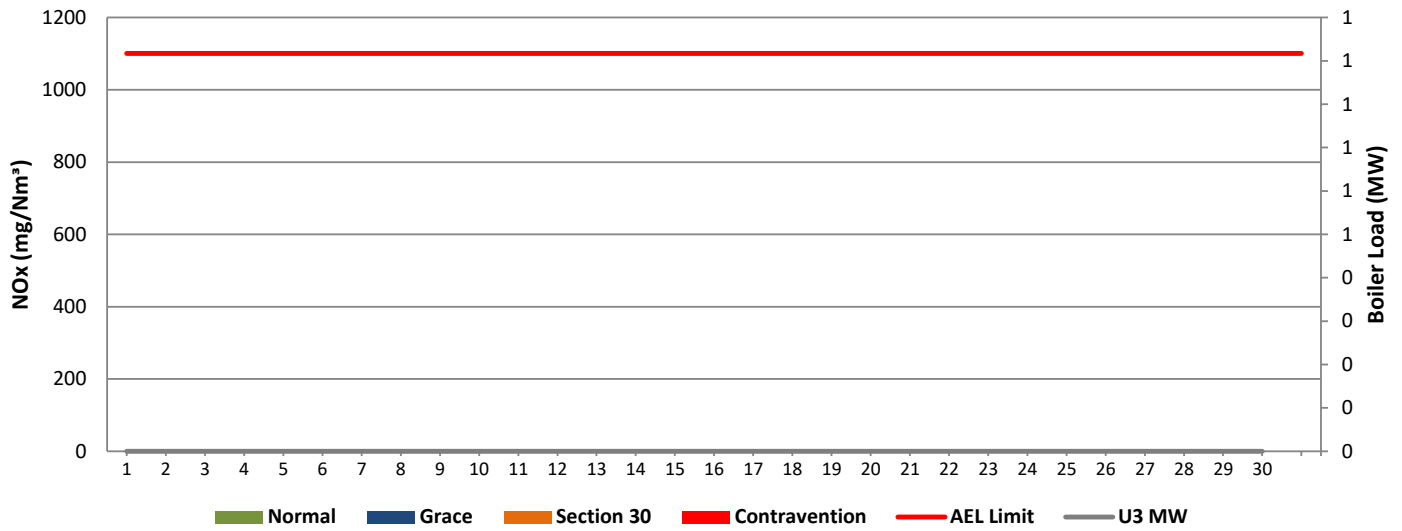


Figure 16: Lethabo Unit 4 NOx Emissions - November 2024

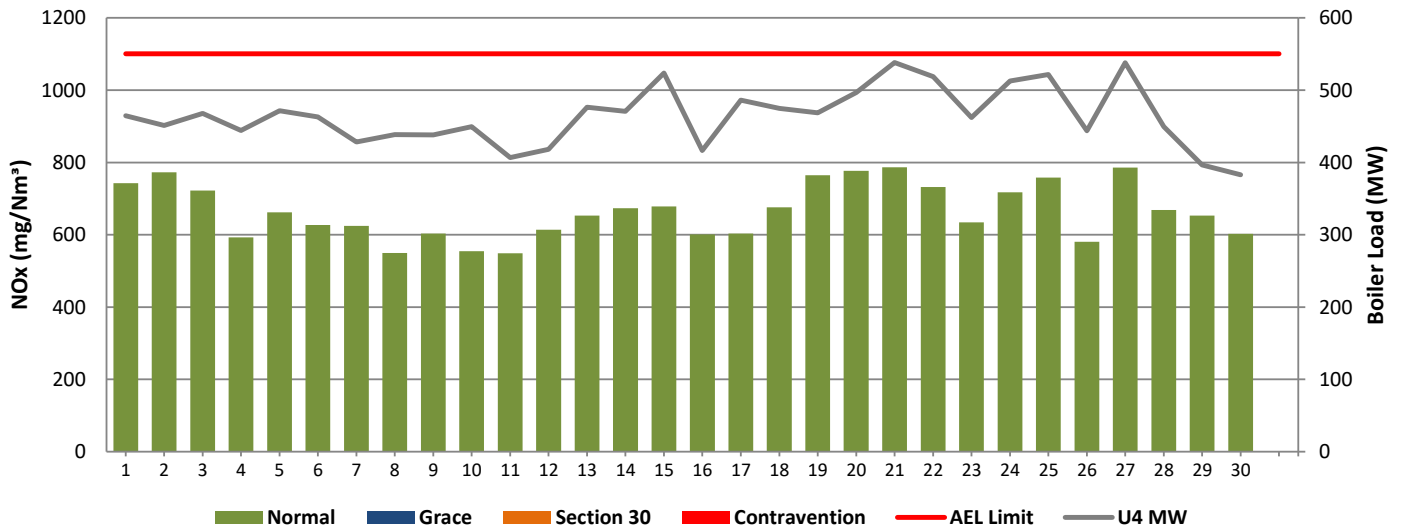


Figure 17: Lethabo Unit 5 NOx Emissions - November 2024

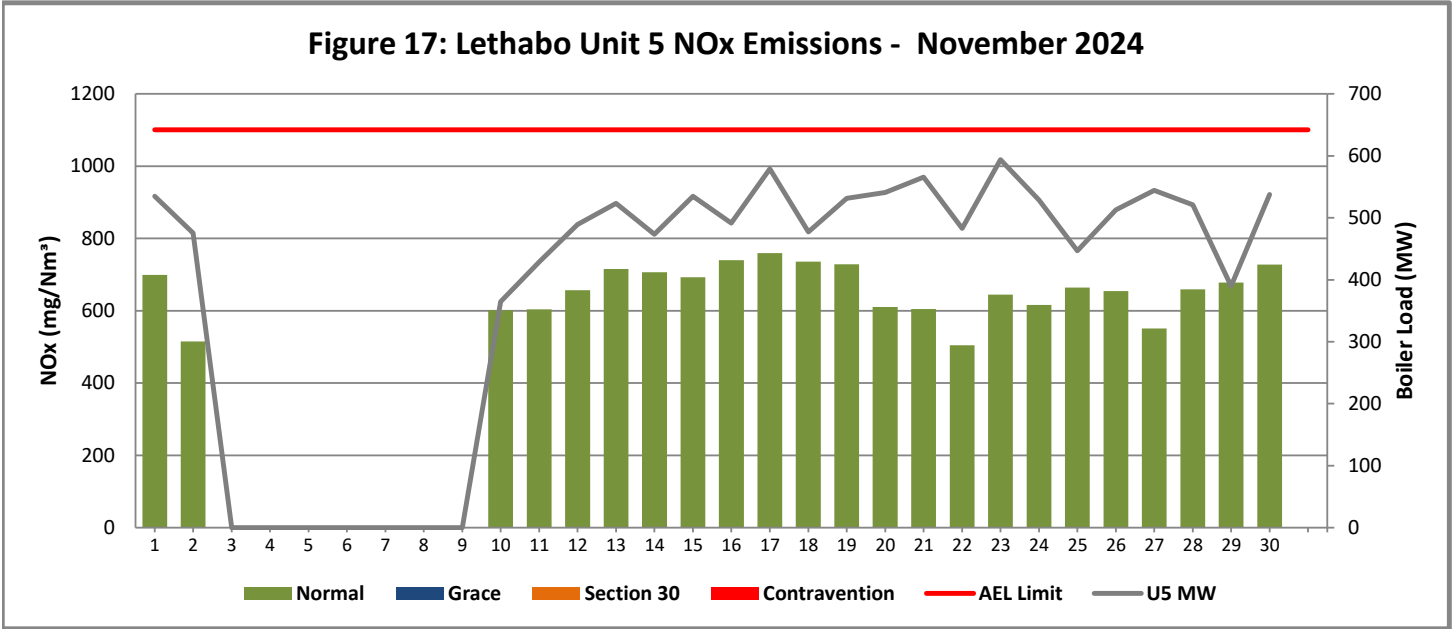
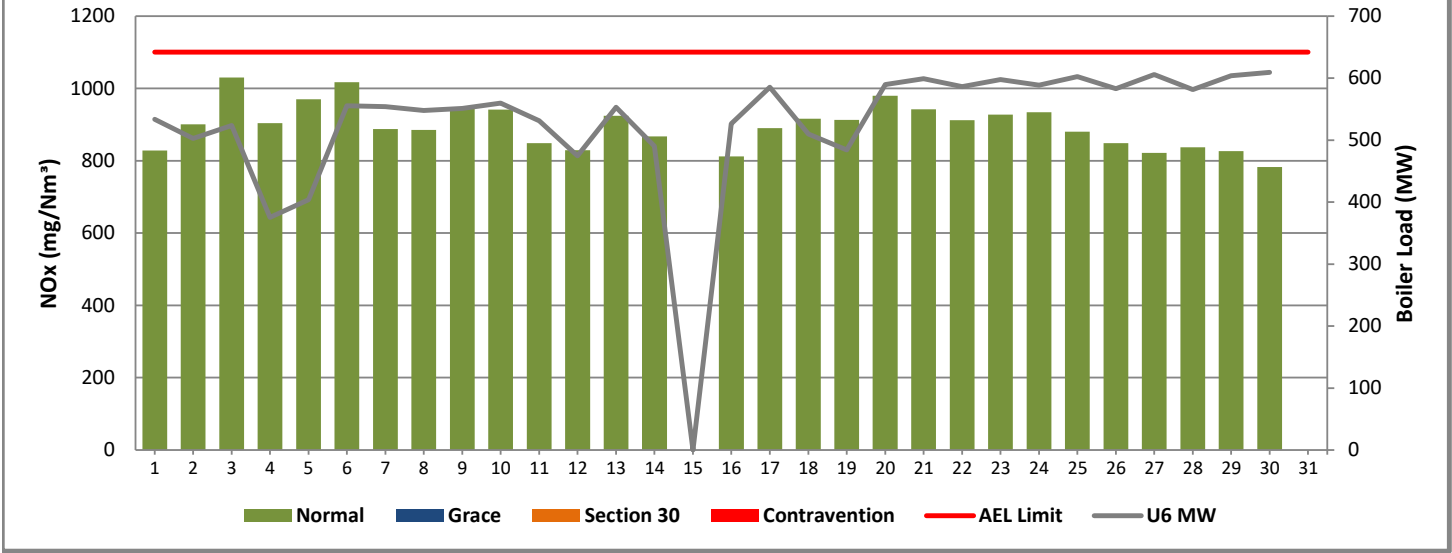


Figure 18: Lethabo Unit 6 NOx Emissions - November 2024



7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1: PM Start-up information for the month of November 2024

Unit No.1	SSC slope tile replacement.							
Breaker Open (BO)	8:59 pm	2024/11/12						
Draught Group (DG) Shut Down (SD)	10:31 pm	2024/11/12						
BO to DG SD (duration)	00:01:32	DD:HH:MM						
Fires in time	1:02 pm	2024/11/13						
Synch. to Grid (or BC)	1:45 pm	2024/11/13						
Fires in to BC (duration)	00:00:43	DD:HH:MM						
Emissions below limit from BC (end date)	12:00 pm	2024/11/15						
Emissions below limit from BC (duration)	01:22:15	DD:HH:MM						

Unit No.2	Boiler tube leak repairs + SO3 plant and safety v/v repairs + Unit 2 Tripped due to calculated condenser protection.		AM: generator rotor down to earth fault					
Breaker Open (BO)	8:55 pm	2024/11/05	1:00 pm	2024/11/12				
Draught Group (DG) Shut Down (SD)	7:47 am	2024/11/06	9:54 am	2024/11/14				
BO to DG SD (duration)	00:10:52	DD:HH:MM	01:20:54	DD:HH:MM				
Fires in time	5:10 am	2024/11/10						
Synch. to Grid (or BC)	7:13 am	2024/11/10						
Fires in to BC (duration)	00:02:03	DD:HH:MM		DD:HH:MM				
Emissions below limit from BC (end date)	12:00 am	2024/11/14						
Emissions below limit from BC (duration)	03:16:47	DD:HH:MM		DD:HH:MM				

Unit No.3	<i>Outage</i>							
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM						
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM						
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM						

Unit No.4	<i>0</i>							
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM						
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM						
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM						

Unit No.5	Boiler tube leak + System Generated Slip Event linked to PCLF Event: 1995798							
Breaker Open (BO)	10:41 pm	2024/11/01						
Draught Group (DG) Shut Down (SD)	12:02 pm	2024/11/02						
BO to DG SD (duration)	00:13:21	DD:HH:MM						
Fires in time	6:04 am	2024/11/09						
Synch. to Grid (or BC)	7:26 am	2024/11/09						
Fires in to BC (duration)	00:01:22	DD:HH:MM						
Emissions below limit from BC (end date)	12:00 am	2024/11/10						
Emissions below limit from BC (duration)	00:16:34	DD:HH:MM						

Unit No.6	Islanding test.				Unit tripped on seal oil pumps faulty			
Breaker Open (BO)	10:40 pm	2024/11/02			10:50 pm	2024/11/13		
Draught Group (DG) Shut Down (SD)	10:47 pm	2024/11/02			DG did not trip or SD	DG did not trip or SD		
BO to DG SD (duration)	00:00:07	DD:HH:MM			n/a	DD:HH:MM		DD:HH:MM
Fires in time	3:26 am	2024/11/03			12:01 am	2024/11/15		
Synch. to Grid (or BC)	5:41 am	2024/11/03			3:13 am	2024/11/15		
Fires in to BC (duration)	00:02:15	DD:HH:MM			00:03:12	DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)	2:00 am	2024/11/06			3:00 am	2024/11/17		
Emissions below limit from BC (duration)	02:20:19	DD:HH:MM			01:23:47	DD:HH:MM		DD:HH:MM

7.2: Point Source emissions released during start-up (fires-in) and Shut-down (SD) for the month of November 2024 in mg/Nm³

8. MAINTENANCE

Unit 1				
Beginning of	2024/11/22 23:59	2024/11/23 23:59		
Reason for Maintenance	LHO Precip casing repairs	RHI precip casing repairs.		
End (Time):	2024/11/23 23:59	2024/11/24 23:34		
Duration	24:00:00	23:35:00		

Unit 2				
Beginning of				
Reason for Maintenance				
End (Time):				
Duration	0:00:00			

Unit 3				
Beginning of				
Reason for Maintenance				
End (Time):				
Duration	0:00:00	0:00:00	0:00:00	

Unit 4				
Beginning of Maintenance (Time):	2024/11/16 00:17	2024/11/16 08:55		
Reason for Maintenance	AM: RHI Precip casing repairs	RH Inner precip casing repairs		
End (Time):	2024/11/16 08:55	2024/11/17 02:59		
Duration	8:38:00	18:04:00		

Unit 5				
Beginning of Maintenance (Time):	2024/11/17 00:02	2024/11/24 00:00		
Reason for Maintenance	AM: LHO Precip. casing repairs.	RHI Precip casing repairs		
End (Time):	2024/11/17 21:15	2024/11/24 22:09		
Duration	21:13:00	22:09:00		

Unit 6				
Beginning of				
Reason for Maintenance				
End (Time):				
Duration				

9. GENERAL

Unit 5 Monitor Reliability

16/11/2024: PM monitor Reliability low due to monitor max out.

Unit 4

Unit 4 incurred load loss due to RHO Casing washing. The activity was planned for internal washing and repairs for 3 days (2024-11-07 @ 00:00 to 2024-11-09 @ 23:59 and only completed on 2024-11-10 @ 17:07~Unit 4 incurred a legal contravention on 10 November 2024 for the PM Exceedance that occurred more than the 72 hour grace period. The incident occurred due to delays for returning the casing after casing washing and DHP challenges days prior to the incident. Investigation still in progress regarding the legal contravention.

CO2 and Velocity Monitors Low Reliability Units 1-6:

Due to correction of bad data as per internal emission data integrity review actions in 2021 and 2022. Bad Velocity data and Bad CO2 data were corrected/removed as per the review actions and findings.

ADDENDUM TO MONTHLY EMISSIONS REPORT

10. S30 INCIDENT OR LEGAL CONTRAVENTION REGISTER

To be completed in the case of a S30 incident or a legal contravention:

Unit no	Incident Start Date	Incident End Date	Incident Cause	Remedial action	S30 initial notification sent	Date S30 investigation report sent	Date DEA Acknowledgment	Date DEA Acceptable	Comments / Reference No.

11. PARTICULATE EMISSIONS

EMISSION RATE (ACTUAL EMISSION/MWh GENERATED - kg/MWh)

MONTH	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	STATION
Dec-23	0.53	0.87	0.88	1.25	0.93	0.71	0.85
Jan-24	0.53	0.98	0.85	0.87	0.75	0.78	0.79
Feb-24	0.55	0.81	0.89	0.63	0.48	OFF	0.68
Mar-24	0.86	0.58	0.97	0.69	0.84	OFF	0.79
Apr-24	0.27	0.66	0.55	0.69	0.68	OFF	0.58
May-24	0.25	0.91	0.56	1.10	0.81	OFF	0.75
Jun-24	0.30	1.03	0.45	0.68	0.54	OFF	0.60
Jul-24	0.43	2.04	0.55	0.75	0.68	1.28	0.87
Aug-24	0.48	0.91	0.69	0.47	0.53	0.18	0.54
Sep-24	0.61	0.70	0.69	0.67	0.76	0.24	0.60
Oct-24	0.34	0.62	OFF	0.61	0.78	0.33	0.57
Nov-24	0.42	0.50	OFF	0.90	0.75	0.26	0.56

ADDENDUM TO MONTHLY EMISSIONS REPORT

12. DAILY EMISSIONS FIGURES

Final Dust Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
31-Oct	40	76	OFF	153	186	63	100
01-Nov	41	115	OFF	91	84	56	100
02-Nov	46	93	OFF	165	OFF	53	100
03-Nov	56	123	OFF	89	OFF	OFF	100
04-Nov	61	167	OFF	137	OFF	513	100
05-Nov	63	84	OFF	151	OFF	52	100
06-Nov	71	OFF	OFF	94	OFF	54	100
07-Nov	53	OFF	OFF	238	OFF	50	100
08-Nov	52	OFF	OFF	185	OFF	59	100
09-Nov	58	OFF	OFF	220	OFF	54	100
10-Nov	66	OFF	OFF	276	92	97	100
11-Nov	113	126	OFF	48	110	50	100
12-Nov	38	57	OFF	91	96	46	100
13-Nov	OFF	OFF	OFF	160	100	59	100
14-Nov	52	OFF	OFF	168	101	OFF	100
15-Nov	85	OFF	OFF	83	100	OFF	100
16-Nov	91	OFF	OFF	367	139	61	100
17-Nov	85	OFF	OFF	147	141	51	100
18-Nov	92	OFF	OFF	88	89	38	100
19-Nov	83	OFF	OFF	94	91	59	100
20-Nov	122	OFF	OFF	100	192	99	100
21-Nov	97	OFF	OFF	95	66	51	100
22-Nov	95	OFF	OFF	91	304	37	100
23-Nov	208	OFF	OFF	187	97	33	100
24-Nov	240	OFF	OFF	176	386	33	100
25-Nov	45	OFF	OFF	86	98	28	100
26-Nov	48	OFF	OFF	172	143	34	100
27-Nov	59	OFF	OFF	107	129	38	100
28-Nov	62	OFF	OFF	92	56	33	100
29-Nov	55	OFF	OFF	116	OFF	31	100
30-Nov	49	OFF	OFF	124	81	23	100

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final SOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
31-Oct	1629	1738	OFF	1673	1618	1739	3500
01-Nov	1612	1749	OFF	1637	1467	2054	3500
02-Nov	1587	1738	OFF	1630	OFF	2047	3500
03-Nov	1565	1746	OFF	1673	OFF	2222	3500
04-Nov	1545	1687	OFF	1586	OFF	1918	3500
05-Nov	1533	1648	OFF	1632	OFF	1932	3500
06-Nov	1455	OFF	OFF	1603	OFF	1737	3500
07-Nov	1513	OFF	OFF	1626	OFF	1843	3500
08-Nov	1565	OFF	OFF	1654	OFF	1860	3500
09-Nov	1598	OFF	OFF	1628	1382	1766	3500
10-Nov	1576	1572	OFF	1713	1524	1807	3500
11-Nov	1521	1612	OFF	1706	1680	1755	3500
12-Nov	1610	1651	OFF	1691	1730	1843	3500
13-Nov	1549	OFF	OFF	1651	1632	1749	3500
14-Nov	1595	OFF	OFF	1693	1660	OFF	3500
15-Nov	1624	OFF	OFF	1615	1618	1788	3500
16-Nov	1564	OFF	OFF	1601	1627	1703	3500
17-Nov	1579	OFF	OFF	1557	1600	1785	3500
18-Nov	1591	OFF	OFF	1573	1634	1760	3500
19-Nov	1567	OFF	OFF	1577	1677	1762	3500
20-Nov	1551	OFF	OFF	1577	1652	1742	3500
21-Nov	1544	OFF	OFF	1539	1651	1780	3500
22-Nov	1558	OFF	OFF	1563	1683	1732	3500
23-Nov	1537	OFF	OFF	1551	1579	1731	3500
24-Nov	1565	OFF	OFF	1568	1673	1772	3500
25-Nov	1604	OFF	OFF	1600	1703	1772	3500
26-Nov	1587	OFF	OFF	1559	1694	1751	3500
27-Nov	1615	OFF	OFF	1611	1727	1861	3500
28-Nov	1691	OFF	OFF	1638	1703	1823	3500
29-Nov	1682	OFF	OFF	1638	1738	1854	3500
30-Nov	1662	OFF	OFF	1651	1722	1789	3500

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final NOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
31-Oct	836	669	OFF	743	699	829	1100
01-Nov	922	686	OFF	773	515	901	1100
02-Nov	983	580	OFF	722	OFF	1031	1100
03-Nov	914	633	OFF	592	OFF	904	1100
04-Nov	809	638	OFF	662	OFF	970	1100
05-Nov	781	586	OFF	627	OFF	1018	1100
06-Nov	819	OFF	OFF	625	OFF	888	1100
07-Nov	797	OFF	OFF	550	OFF	885	1100
08-Nov	810	OFF	OFF	604	OFF	943	1100
09-Nov	876	OFF	OFF	554	602	941	1100
10-Nov	818	597	OFF	549	604	848	1100
11-Nov	856	604	OFF	614	657	830	1100
12-Nov	737	518	OFF	653	715	924	1100
13-Nov	685	OFF	OFF	674	706	867	1100
14-Nov	747	OFF	OFF	678	693	OFF	1100
15-Nov	879	OFF	OFF	601	740	812	1100
16-Nov	856	OFF	OFF	603	759	891	1100
17-Nov	871	OFF	OFF	676	736	916	1100
18-Nov	835	OFF	OFF	764	728	913	1100
19-Nov	786	OFF	OFF	777	610	980	1100
20-Nov	863	OFF	OFF	786	605	942	1100
21-Nov	888	OFF	OFF	732	504	912	1100
22-Nov	956	OFF	OFF	634	645	928	1100
23-Nov	900	OFF	OFF	717	616	934	1100
24-Nov	714	OFF	OFF	758	664	881	1100
25-Nov	800	OFF	OFF	581	655	849	1100
26-Nov	782	OFF	OFF	785	551	821	1100
27-Nov	780	OFF	OFF	669	659	838	1100
28-Nov	914	OFF	OFF	653	678	827	1100
29-Nov	883	OFF	OFF	603	728	783	1100
30-Nov	888	OFF	OFF	566	731	751	1100

ADDENDUM TO MONTHLY EMISSIONS REPORT

13. AVAILABILITY

ESP utilisation

Availability												
Month	Unit 1	Days Affected	Unit 2	Days Affected	Unit 3	Days Affected	Unit 4	Days Affected	Unit 5	Days Affected	Unit 6	Days Affected
Dec-23	100.00%	0.0	97.95%	2.5	100.00%	0.0	98.62%	1.7	98.03%	2.4	97.91%	2.6
Jan-24	97.90%	2.6	98.73%	1.6	100.00%	0.0	100.00%	0.0	99.32%	0.8	100.00%	0.0
Feb-24	100.00%	0.0	99.34%	0.8	98.42%	1.8	99.89%	0.1	100.00%	0.0	Off-line	Off-line
Mar-24	100.00%	0.0	99.19%	1.0	100.00%	0.0	97.53%	3.1	99.19%	1.0	100.00%	0.00%
Apr-24	100.00%	0.0	100.00%	0.0	100.00%	0.0	99.89%	0.1	97.43%	3.1	100.00%	0.00%
May-24	100.00%	0.0	97.91%	2.6	100.00%	0.0	97.67%	2.9	99.38%	0.8	100.00%	0.00%
Jun-24	100.00%	0.00	99.17%	1.00	98.09%	2.29	98.32%	2.01	100.00%	0.00	100.00%	0.00
Jul-24	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.00%
Aug-24	98.59%	1.8	100.00%	0.0	99.21%	1.0	100.00%	0.0	99.84%	0.2	100.00%	0.00%
Sep-24	98.55%	1.74	99.84%	0.19	100.00%	0.00	99.12%	1.06	99.16%	1.01	100.00%	0.00
Oct-24	99.19%	1.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	97.67%	2.9	100.00%	0.00%
Nov-24	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00

SO₃ plant utilisation

Availability												
Month	Unit 1	Days Affected	Unit 2	Days Affected	Unit 3	Days Affected	Unit 4	Days Affected	Unit 5	Days Affected	Unit 6	Days Affected
Dec-23	92.47%	2.3	97.67%	0.7	81.25%	5.8	84.48%	4.8	93.82%	1.9	85.62%	4.5
Jan-24	95.73%	1.3	90.43%	3.0	69.76%	9.4	91.80%	2.5	89.78%	3.2	95.24%	1.5
Feb-24	99.92%	0.0	87.56%	3.6	98.85%	0.3	95.65%	1.3	88.10%	3.5	Off-line	Off-line
Mar-24	99.33%	0.21	93.76%	1.94	84.86%	4.69	100.00%	0.00	100.00%	0.00	Off-line	Off-line
Apr-24	99.46%	0.2	93.92%	1.8	99.58%	0.1	100.00%	0.0	100.00%	0.0	Off-line	Off-line
May-24	99.45%	0.2	99.87%	0.0	96.37%	1.1	99.87%	0.0	100.00%	0.0	Off-line	Off-line
Jun-24	97.08%	0.88	69.03%	9.29	100.00%	0.00	99.34%	0.20	99.77%	0.07	Off-line	Off-line
Jul-24	98.30%	0.5	41.43%	18.2	99.73%	0.1	99.58%	0.1	98.39%	0.5	53.66%	14.37
Aug-24	99.46%	0.2	91.70%	2.6	100.00%	0.0	97.98%	0.6	99.59%	0.1	96.68%	1.03
Sep-24	100.00%	0.0	89.45%	3.2	99.33%	0.2	99.84%	0.0	99.58%	0.1	99.92%	2.45%
Oct-24	99.85%	0.0	95.65%	1.3	Off-line	Off-line	98.92%	0.3	93.82%	1.9	99.59%	12.62%
Nov-24	99.99%	0.0	96.60%	1.0	Off-line	Off-line	99.17%	0.3	97.46%	0.8	99.21%	23.75%

ADDENDUM TO MONTHLY EMISSIONS REPORT

Particulate Emission Monitors

Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Dec-23	98.12%	92.68%	95.74%	90.32%	95.03%	97.85%
Jan-24	98.28%	85.65%	94.35%	90.76%	92.88%	97.82%
Feb-24	96.67%	93.82%	93.39%	96.10%	98.81%	OFF
Mar-24	94.09%	97.49%	96.46%	97.18%	95.83%	OFF
Apr-24	99.68%	92.71%	97.22%	94.03%	98.06%	OFF
May-24	98.93%	93.01%	97.45%	91.88%	95.47%	OFF
Jun-24	98%	87%	97%	97%	99%	OFF
Jul-24	90.95%	73.05%	97.04%	95.37%	98.85%	61.98%
Aug-24	95.70%	91.44%	99.38%	99.60%	98.95%	99.58%
Sep-24	98.11%	94.42%	100.00%	98.42%	96.20%	99.64%
Oct-24	99.65%	94.32%	OFF	98.75%	96.51%	98.18%
Nov-24	99.43%	99.40%	OFF	99.31%	94.41%	98.54%

Gaseous Emission Monitors

Availability												
Unit 1			Unit 2		Unit 3		Unit 4		Unit 5		Unit 6	
Month	SO _x	NO _x	SO _x	NO _x	SO _x	NO _x	SO _x	NO _x	SO _x	NO _x	SO _x	NO _x
Dec-23	100.00%	100.00%	100.00%	100.00%	100.00%	98.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Jan-24	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.87%	100.00%	100.00%	100.00%
Feb-24	98.08%	98.08%	99.78%	98.95%	98.28%	98.28%	97.83%	97.83%	97.73%	97.73%	OFF	OFF
Mar-24	99.73%	99.73%	100.00%	100.00%	99.62%	99.43%	99.73%	99.60%	99.73%	99.87%	OFF	OFF
Apr-24	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OFF	OFF
May-24	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.79%	98.79%	98.37%	98.37%	OFF	OFF
Jun-24	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OFF	OFF
Jul-24	99.75%	99.89%	100.00%	100.00%	100.00%	100.00%	99.46%	99.73%	100.00%	100.00%	73.40%	70.78%
Aug-24	99.87%	100.00%	99.80%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Sep-24	100.00%	100.00%	100.00%	99.68%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Oct-24	99.85%	100.00%	99.58%	99.72%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.65%	99.65%
Nov-24	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.86%	100.00%

Oxygen Monitor Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Dec-23	100.00%	99.83%	99.81%	99.72%	100.00%	99.46%
Jan-24	99.87%	99.86%	100.00%	100.00%	100.00%	98.10%
Feb-24	97.92%	99.78%	97.84%	97.67%	97.54%	OFF
Mar-24	99.73%	100.00%	99.24%	99.87%	99.87%	OFF
Apr-24	100.00%	100.00%	99.86%	100.00%	100.00%	OFF
May-24	99.97%	100.00%	99.98%	98.79%	98.31%	OFF
Jun-24	100.00%	100.00%	100.00%	99.55%	36.78%	OFF
Jul-24	99.89%	100.00%	100.00%	100.00%	99.84%	50.17%
Aug-24	99.87%	99.80%	99.87%	99.87%	100.00%	99.48%
Sep-24	100.00%	99.90%	100.00%	99.86%	99.72%	99.70%
Oct-24	99.23%	99.55%	0.00%	99.87%	94.89%	99.28%
Nov-24	100.00%	100.00%	0.00%	99.86%	84.89%	99.15%

ADDENDUM TO MONTHLY EMISSIONS REPORT

14. EFFICIENCY

ESP Efficiency (%)						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Dec-23	99.776%	99.585%	99.592%	99.414%	99.576%	99.667%
Jan-24	99.833%	99.641%	99.694%	99.692%	99.737%	99.721%
Feb-24	99.834%	99.719%	99.697%	99.788%	99.835%	Unit Off-line
Mar-24	99.519%	99.614%	99.393%	99.559%	99.474%	Unit Off-line
Apr-24	99.901%	99.698%	99.774%	99.704%	99.714%	Unit Off-line
May-24	99.906%	99.582%	99.771%	99.525%	99.654%	Unit Off-line
Jun-24	99.89%	99.55%	99.82%	99.62%	99.75%	Unit Off-line
Jul-24	99.848%	99.125%	99.796%	99.588%	99.735%	99.450%
Aug-24	99.845%	99.625%	99.749%	99.755%	99.769%	99.907%
Sep-24	99.789%	99.660%	99.775%	99.644%	99.675%	99.896%
Oct-24	99.866%	99.716%	Unit Off-line	99.669%	99.637%	99.856%
Nov-24	99.838%	99.782%	Unit Off-line	99.515%	99.662%	99.888%

15. REMARKS

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
1	18	AM: ID fans not coping - ducting damage.	2024/11/01 00:00:00	2024/11/12 20:59:00
1	113	Spinning Reserve	2024/11/11 05:09:00	2024/11/11 05:16:00
1	100	Spinning Reserve	2024/11/11 05:16:00	2024/11/11 05:39:00
1	63	Spinning Reserve	2024/11/11 05:39:00	2024/11/11 06:57:00
1	148	Spinning Reserve	2024/11/11 21:57:00	2024/11/11 23:31:00
1	593	SSC slope tile replacement	2024/11/12 20:59:00	2024/11/13 13:45:00
1	296	System Generated Ramp Event for Event id : 1999561	2024/11/13 13:45:00	2024/11/13 16:15:00
1	18	ID fans not coping due to ducting damaged.	2024/11/13 16:15:00	2024/11/30 23:59:59
1	99	AM: B mill feeders o/c	2024/11/15 21:14:00	2024/11/16 01:06:00
1	200	Manual rapping	2024/11/20 22:57:00	2024/11/21 00:27:00
1	96	EF: High stack emissions	2024/11/22 10:47:00	2024/11/22 23:59:00
1	100	LHO Precip casing repairs	2024/11/22 23:59:00	2024/11/23 23:59:00
1	100	RHI precip casing repairs.	2024/11/23 23:59:00	2024/11/24 23:34:00
1	100	E Mill ball loading hopper repairs	2024/11/27 00:30:00	2024/11/27 02:13:00
1	90	B Mill ball loading hopper repairs	2024/11/28 01:44:00	2024/11/28 04:43:00
2	25	AM: ID Fans not coping. Ducting flts.	2024/11/01 00:00:00	2024/11/02 08:07:00
2	18	AM: ID Fans not coping. Ducting flts.	2024/11/02 08:07:00	2024/11/05 09:21:00
2	199	Spinning Reserve	2024/11/02 09:44:00	2024/11/02 16:19:00
2	103	Spinning Reserve	2024/11/02 16:19:00	2024/11/02 19:38:00
2	198	Spinning Reserve	2024/11/02 21:56:00	2024/11/03 02:14:00
2	198	Spinning Reserve	2024/11/03 13:03:00	2024/11/03 15:32:00
2	100	Spinning Reserve	2024/11/03 15:32:00	2024/11/03 17:58:00
2	98	Spinning Reserve	2024/11/05 07:09:00	2024/11/05 08:09:00
2	198	Spinning Reserve	2024/11/05 08:09:00	2024/11/05 09:21:00
2	19	AM: ID Fans not coping. Ducting flts.	2024/11/05 09:21:00	2024/11/05 10:35:00
2	18	AM: ID Fans not coping. Ducting flts.	2024/11/05 10:35:00	2024/11/05 20:55:00
2	96	Boiler tube leak	2024/11/05 15:48:00	2024/11/05 16:16:00
2	151	Boiler tube leak	2024/11/05 16:16:00	2024/11/05 20:55:00
2	593	Boiler tube leak repairs.	2024/11/05 20:55:00	2024/11/08 21:29:00
2	593	SO3 plant and safety v/v repairs	2024/11/08 21:29:00	2024/11/10 06:07:00
2	573	System Generated Ramp Event for Event id : 1997319 (Recalculated)	2024/11/10 06:07:00	2024/11/10 06:16:00
2	593	Unit 2 Tripped due to calculated condenser protection	2024/11/10 06:16:00	2024/11/10 07:13:00
2	297	System Generated Ramp Event for Event id : 1998679	2024/11/10 07:13:00	2024/11/10 08:43:00
2	163	Boiler pressure restriction.	2024/11/10 10:13:00	2024/11/10 10:52:00
2	145	Mill availability.	2024/11/10 10:52:00	2024/11/10 12:14:00
2	136	Mill availability.	2024/11/10 12:14:00	2024/11/10 13:08:00
2	126	Mill and feeder availability.	2024/11/10 13:08:00	2024/11/10 13:59:00
2	95	Mill and feeder availability	2024/11/10 13:59:00	2024/11/10 14:22:00
2	28	ID fans not coping	2024/11/10 14:22:00	2024/11/10 14:44:00
2	18	ID fans not coping	2024/11/10 14:44:00	2024/11/12 13:00:00
2	95	Spinning Reserve	2024/11/10 20:12:00	2024/11/11 05:54:00
2	98	Spinning Reserve	2024/11/11 07:08:00	2024/11/11 11:27:00
2	198	High stack emissions.	2024/11/12 03:18:00	2024/11/12 07:42:00
2	102	High stack emissions	2024/11/12 07:42:00	2024/11/12 08:38:00
2	96	Spinning Reserve	2024/11/12 10:37:00	2024/11/12 13:00:00
2	593	AM: generator rotor down to earth fault	2024/11/12 13:00:00	2024/11/30 23:59:59
3	593	IR ESP & S03 PLANT	2024/11/01 00:00:00	2024/11/30 23:59:59
4	118	D mill PF leak repairs	2024/11/01 00:00:00	2024/11/13 18:45:00
4	14	Spinning Reserve	2024/11/01 10:29:00	2024/11/01 12:17:00
4	95	EF: High stack emissions.	2024/11/03 16:33:00	2024/11/04 00:11:00

4	102	Spinning Reserve	2024/11/05 06:57:00	2024/11/05 10:07:00
4	100	AM: High stack emissions.	2024/11/06 00:24:00	2024/11/06 04:35:00
4	48	High stack emissions	2024/11/06 15:34:00	2024/11/07 01:27:00
4	55	EF: ID fans not coping	2024/11/07 04:58:00	2024/11/08 05:40:00
4	50	AM: SSC slope repairs	2024/11/07 21:04:00	2024/11/08 05:43:00
4	27	AM: B mill RH feeder on PTW for cleaning.	2024/11/08 05:40:00	2024/11/08 05:57:00
4	50	AM: B mill short feeder on PTW for cleaning.	2024/11/08 05:57:00	2024/11/08 11:02:00
4	50	ID fans not coping	2024/11/08 11:02:00	2024/11/11 16:35:00
4	43	EF: High stack emissions	2024/11/10 00:15:00	2024/11/11 16:35:00
4	68	AM: D mill tripped on Trunnion bearing temp.	2024/11/12 15:06:00	2024/11/12 15:28:00
4	91	Coal constraints.-S14 A & B Converyor belt	2024/11/13 04:40:00	2024/11/13 13:36:00
4	40	ID fans not coping	2024/11/13 18:45:00	2024/11/14 16:14:00
4	80	ID fans not coping due to ducting wear.	2024/11/14 16:14:00	2024/11/16 03:35:00
4	131	Manual rapping.	2024/11/14 20:40:00	2024/11/15 00:28:00
4	120	High stack emissions	2024/11/15 00:28:00	2024/11/16 00:17:00
4	48	AM: RHI Precip casing repairs	2024/11/16 00:17:00	2024/11/16 08:55:00
4	96	ID fans not coping due to ducting wear.	2024/11/16 03:35:00	2024/11/16 03:45:00
4	100	ID fans not coping due to ducting wear.	2024/11/16 03:45:00	2024/11/16 08:55:00
4	10	ID Fans not coping due to ducting wear	2024/11/16 08:55:00	2024/11/17 20:02:00
4	118	RH Inner precip casing repairs	2024/11/16 08:55:00	2024/11/17 02:59:00
4	108	Spinning Reserve	2024/11/17 02:59:00	2024/11/17 05:17:00
4	188	Spinning Reserve	2024/11/17 05:17:00	2024/11/17 16:27:00
4	108	Spinning Reserve	2024/11/17 16:27:00	2024/11/17 18:27:00
4	20	Spinning Reserve	2024/11/17 18:27:00	2024/11/17 18:43:00
4	104	Spinning Reserve	2024/11/17 18:43:00	2024/11/17 20:02:00
4	68	ID fans not coping due to ducting damaged	2024/11/17 20:02:00	2024/11/18 04:14:00
4	50	Spinning Reserve	2024/11/18 00:27:00	2024/11/18 04:14:00
4	58	ID fans not coping due to ducting damaged	2024/11/18 04:14:00	2024/11/19 11:16:00
4	60	Spinning Reserve	2024/11/18 05:28:00	2024/11/18 07:23:00
4	159	Spinning Reserve	2024/11/18 07:23:00	2024/11/18 15:18:00
4	107	High stack emissions	2024/11/18 15:17:00	2024/11/18 17:00:00
4	63	High stack emissions	2024/11/18 17:00:00	2024/11/18 17:11:00
4	60	High stack emissions	2024/11/18 17:11:00	2024/11/18 19:41:00
4	164	High stack emissions.	2024/11/18 19:41:00	2024/11/18 20:28:00
4	60	High stack emissions	2024/11/18 20:28:00	2024/11/19 00:04:00
4	60	E-mill programme faulty	2024/11/19 00:04:00	2024/11/19 11:04:00
4	38	ID fans not coping mainly due to air ingress.	2024/11/19 11:16:00	2024/11/19 11:24:00
4	58	ID fans not coping due to ducting damaged.	2024/11/19 11:24:00	2024/11/19 11:45:00
4	38	ID fans not coping due to ducting damaged.	2024/11/19 11:45:00	2024/11/20 08:14:00
4	79	E mill repairs.	2024/11/19 12:25:00	2024/11/20 08:14:00
4	28	ID fans not coping due to ducting damaged.	2024/11/20 08:14:00	2024/11/23 13:49:00
4	86	High stack emissions	2024/11/20 21:18:00	2024/11/21 00:06:00
4	86	Spinning Reserve	2024/11/21 20:18:00	2024/11/22 00:02:00
4	90	Dust plant standing	2024/11/22 04:00:00	2024/11/22 04:23:00
4	185	Dust plant standing	2024/11/22 04:23:00	2024/11/22 15:23:00
4	107	AM: C Mill byoass damper S045 & A Mill seal air damper faulty	2024/11/22 15:23:00	2024/11/22 19:06:00
4	115	AM: C Mill bypass damper S045 & A Mill seal air damper faulty	2024/11/22 19:06:00	2024/11/23 13:49:00
4	48	EF: ID fans not coping due to ducting damaged.	2024/11/23 13:49:00	2024/11/26 19:45:00
4	44	AM: Low O2's	2024/11/24 09:15:00	2024/11/24 16:40:00
4	126	Spinning Reserve	2024/11/24 10:48:00	2024/11/24 13:11:00
4	26	Spinning Reserve	2024/11/24 13:11:00	2024/11/24 13:42:00
4	12	Spinning Reserve	2024/11/24 13:42:00	2024/11/24 14:24:00
4	9	Spinning Reserve	2024/11/24 14:24:00	2024/11/24 14:57:00
4	16	Spinning Reserve	2024/11/24 14:57:00	2024/11/24 15:35:00
4	129	Spinning Reserve	2024/11/24 15:35:00	2024/11/24 16:40:00
4	170	High stack emissions	2024/11/25 00:24:00	2024/11/25 07:32:00
4	164	Spinning Reserve	2024/11/25 07:32:00	2024/11/25 10:10:00
4	169	EF: High stack emissions.	2024/11/25 13:40:00	2024/11/25 16:05:00
4	120	EF: High stack emissions	2024/11/25 16:05:00	2024/11/25 17:19:00
4	80	EF: High stack emissions.	2024/11/25 17:19:00	2024/11/26 02:21:00
4	78	ID Fans not coping due to ducting damaged	2024/11/26 19:45:00	2024/11/27 17:10:00
4	140	Manual raping	2024/11/27 00:01:00	2024/11/27 06:05:00
4	140	Clinkers in SSC	2024/11/27 06:05:00	2024/11/27 10:37:00
4	41	High stack emissions.	2024/11/27 10:37:00	2024/11/27 14:34:00
4	90	ID fans not coping due to ducting damaged	2024/11/27 14:35:00	2024/11/27 17:03:00
4	59	ID fans not coping due to ducting damaged	2024/11/27 17:10:00	2024/11/27 17:17:00

4	52	ID fans not coping due to ducting damaged	2024/11/27 17:17:00	2024/11/27 17:29:00
4	46	ID fans not coping due to ducting damaged	2024/11/27 17:29:00	2024/11/27 19:15:00
4	64	ID fans not coping due to ducting damaged	2024/11/27 19:15:00	2024/11/29 19:36:00
4	150	SSC standing.	2024/11/27 21:04:00	2024/11/28 00:00:00
4	150	EF:High stack emissions	2024/11/28 00:00:00	2024/11/29 00:00:00
4	174	SSC repairs	2024/11/29 00:00:00	2024/11/29 19:36:00
4	68	ID Fans not coping due to ducting damaged	2024/11/29 19:36:00	2024/11/30 23:59:59
4	150	EF:High stack emissions	2024/11/29 19:36:00	2024/11/30 23:59:59
4	19	Spinning Reserve	2024/11/30 15:37:00	2024/11/30 19:19:00
5	106	EF: ID Fans not coping - ducting flts.	2024/11/01 00:00:00	2024/11/01 00:14:00
5	112	Manual rapping	2024/11/01 00:00:00	2024/11/01 00:14:00
5	100	AM: Boiler tube leak	2024/11/01 00:14:00	2024/11/01 10:33:00
5	18	EF: ID fans not coping due to ducting wear	2024/11/01 00:14:00	2024/11/01 22:41:00
5	130	AM:Boiler tube leak.	2024/11/01 10:33:00	2024/11/01 22:41:00
5	593	Boiler tube leak	2024/11/01 22:41:00	2024/11/06 22:41:00
5	593	System Generated Slip Event linked to PCLF Event : 1995798	2024/11/06 22:41:00	2024/11/09 07:26:00
5	297	System Generated Ramp Event for Event id : 1995798	2024/11/09 07:26:00	2024/11/09 10:26:00
5	259	A,B&E mills not available.	2024/11/09 10:26:00	2024/11/09 15:05:00
5	176	A&B mills not available	2024/11/09 15:05:00	2024/11/09 16:52:00
5	95	B&E mills not available	2024/11/09 16:52:00	2024/11/09 17:26:00
5	245	A,B&E mills not available.	2024/11/09 17:26:00	2024/11/10 10:45:00
5	118	no 5th mill available.	2024/11/10 10:45:00	2024/11/10 18:11:00
5	117	Spinning Reserve	2024/11/10 18:11:00	2024/11/10 20:13:00
5	208	Spinning Reserve	2024/11/10 20:13:00	2024/11/11 05:28:00
5	117	Spinning Reserve	2024/11/11 05:28:00	2024/11/11 06:13:00
5	118	Spinning Reserve	2024/11/11 23:44:00	2024/11/12 00:28:00
5	118	EF: High stack emissions	2024/11/12 19:27:00	2024/11/13 04:47:00
5	217	Coal constraints.S14 A& B Converyor belt	2024/11/13 04:47:00	2024/11/13 14:45:00
5	118	EF: High stack emissions	2024/11/13 19:42:00	2024/11/13 22:20:00
5	215	EF: High stack emissions	2024/11/13 22:21:00	2024/11/14 04:46:00
5	218	EF: High stack emissions	2024/11/14 21:01:00	2024/11/15 05:07:00
5	118	High stack emissions	2024/11/15 09:48:00	2024/11/15 16:42:00
5	116	EF: High stack emissions.	2024/11/15 19:10:00	2024/11/15 21:23:00
5	216	EF: High stack emissions	2024/11/15 21:23:00	2024/11/15 21:57:00
5	234	EF: High stack emissions	2024/11/15 21:57:00	2024/11/16 00:43:00
5	116	AM: LHO Precip. casing repairs.	2024/11/17 00:02:00	2024/11/17 21:15:00
5	58	ID fans not coping due to ducting damaged.	2024/11/18 04:16:00	2024/11/18 08:06:00
5	18	ID Fans not coping due to ducting wear	2024/11/18 08:06:00	2024/11/28 23:20:00
5	199	Manual rapping	2024/11/20 21:43:00	2024/11/21 00:01:00
5	197	High stack emissions	2024/11/21 00:01:00	2024/11/21 07:50:00
5	100	EF: High stack emissions	2024/11/21 07:50:00	2024/11/21 17:29:00
5	97	Spinning Reserve	2024/11/21 07:50:00	2024/11/21 09:24:00
5	143	EF: High stack emissions	2024/11/23 11:16:00	2024/11/23 12:08:00
5	148	EF: High stack emissions	2024/11/23 12:08:00	2024/11/23 16:53:00
5	150	High stack emissions.	2024/11/23 19:35:00	2024/11/24 00:00:00
5	48	High stack emissions.	2024/11/24 00:00:00	2024/11/24 00:15:00
5	100	RHI Precip casing repairs	2024/11/24 00:00:00	2024/11/24 22:09:00
5	146	High stack emissions	2024/11/25 22:13:00	2024/11/26 00:35:00
5	99	High stack emissions	2024/11/26 04:00:00	2024/11/26 14:00:00
5	200	Manual rapping	2024/11/27 00:18:00	2024/11/27 03:40:00
5	100	High stack emissions	2024/11/27 12:26:00	2024/11/27 17:02:00
5	100	H2 pressure low	2024/11/27 17:59:00	2024/11/28 00:57:00
5	197	EF:High stack emissions	2024/11/28 00:57:00	2024/11/28 12:41:00
5	33	Main turbine HP and IP control valves 1,2,3 closed).	2024/11/28 10:49:00	2024/11/28 23:20:00
5	167	EF:High stack emissions	2024/11/28 12:41:00	2024/11/28 23:20:00
5	593	HP/IP Control valves card module replacement	2024/11/28 23:20:00	2024/11/29 02:11:00
5	297	System Generated Ramp Event for Event id : 2004209	2024/11/29 02:11:00	2024/11/29 03:41:00
6	136	Safety valve lifting	2024/11/01 00:00:00	2024/11/01 05:38:00
6	121	A Mill breaker faulty	2024/11/01 05:38:00	2024/11/01 19:29:00
6	118	AM: 5th Mill not available.	2024/11/01 19:29:00	2024/11/01 22:06:00
6	18	EF: Safety v/v lifting.	2024/11/01 23:35:00	2024/11/02 18:55:00
6	200	Spinning Reserve	2024/11/02 10:19:00	2024/11/02 15:49:00
6	120	Spinning Reserve	2024/11/02 15:49:00	2024/11/02 18:55:00
6	21	EF: Safety v/v lifting.	2024/11/02 18:55:00	2024/11/02 22:40:00
6	593	Islanding test	2024/11/02 22:40:00	2024/11/03 05:41:00
6	297	System Generated Ramp Event for Event id : 1996099	2024/11/03 05:41:00	2024/11/03 07:11:00

6	397	AM: LH Draught group due to LH ID fan lub oil pump coupling faulty.	2024/11/03 07:11:00	2024/11/03 12:26:00
6	218	Spinning Reserve	2024/11/03 12:16:00	2024/11/03 15:27:00
6	137	Spinning Reserve	2024/11/03 15:27:00	2024/11/03 17:43:00
6	171	Suspected tube leak.	2024/11/03 17:43:00	2024/11/03 17:59:00
6	136	Blowdown vessel isolating v/v leaking.	2024/11/03 17:59:00	2024/11/04 13:34:00
6	593	Unit trip due to Gen Seal oil AC Aux pump fault.	2024/11/04 13:34:00	2024/11/04 18:49:00
6	297	System Generated Ramp Event for Event id : 1996916	2024/11/04 18:49:00	2024/11/04 20:19:00
6	38	AM: Blowdown vessel isolating v/v leaking	2024/11/04 20:19:00	2024/11/04 21:48:00
6	58	AM: Blowdown vessel isolating v/v leaking	2024/11/04 21:48:00	2024/11/05 07:51:00
6	58	Spinning Reserve	2024/11/05 07:11:00	2024/11/05 07:51:00
6	62	AM: Blowdown vessel isolating v/v leaking	2024/11/05 07:51:00	2024/11/07 04:16:00
6	56	Spinning Reserve	2024/11/06 07:18:00	2024/11/06 08:23:00
6	55	Spinning Reserve	2024/11/06 23:43:00	2024/11/07 04:16:00
6	58	AM: Blowdown vessel isolating v/v leaking	2024/11/07 04:16:00	2024/11/11 16:46:00
6	60	Spinning Reserve	2024/11/07 23:49:00	2024/11/08 03:27:00
6	66	Spinning Reserve	2024/11/10 12:39:00	2024/11/11 03:45:00
6	60	Spinning Reserve	2024/11/11 07:31:00	2024/11/11 12:30:00
6	193	Spinning Reserve	2024/11/11 12:30:00	2024/11/11 16:46:00
6	59	AM: Blowdown vessel isolating v/v leaking	2024/11/11 16:46:00	2024/11/13 22:50:00
6	158	Spinning Reserve	2024/11/11 20:07:00	2024/11/11 23:52:00
6	60	Spinning Reserve	2024/11/11 23:52:00	2024/11/12 01:49:00
6	157	Coal constraints.- S14 A& B Converyor belt	2024/11/13 04:46:00	2024/11/13 13:32:00
6	60	B&F mills not available	2024/11/13 13:32:00	2024/11/13 15:30:00
6	593	Unit tripped on seal oil pumps faulty	2024/11/13 22:50:00	2024/11/15 03:13:00
6	296	System Generated Ramp Event for Event id : 1999974	2024/11/15 03:13:00	2024/11/15 05:43:00
6	223	E Mill lube oil pressure low & F Mill breaker faulty	2024/11/15 05:43:00	2024/11/15 06:08:00
6	119	E Mill lube oil pressure low & F Mill breaker faulty	2024/11/15 06:08:00	2024/11/15 11:40:00
6	61	Poor condenser vacuum	2024/11/15 11:40:00	2024/11/15 15:52:00
6	38	Spinning Reserve	2024/11/16 00:30:00	2024/11/16 02:10:00
6	35	AM: Mills C&E feeders o/c.	2024/11/16 02:10:00	2024/11/16 20:45:00
6	116	Spinning Reserve	2024/11/17 05:22:00	2024/11/17 06:01:00
6	217	Spinning Reserve	2024/11/17 06:01:00	2024/11/17 16:31:00
6	118	Spinning Reserve	2024/11/17 16:31:00	2024/11/17 18:24:00
6	28	Spinning Reserve	2024/11/17 18:24:00	2024/11/17 18:25:00
6	10	Spinning Reserve	2024/11/17 18:30:00	2024/11/17 18:54:00
6	115	Spinning Reserve	2024/11/17 18:54:00	2024/11/17 19:21:00
6	117	Spinning Reserve	2024/11/18 00:38:00	2024/11/18 04:13:00
6	116	Spinning Reserve	2024/11/18 05:39:00	2024/11/18 07:21:00
6	212	Spinning Reserve	2024/11/18 07:21:00	2024/11/18 15:16:00
6	120	Spinning Reserve	2024/11/18 15:16:00	2024/11/18 23:52:00
6	68	Spinning Reserve	2024/11/18 23:52:00	2024/11/19 03:46:00
6	98	F-mill both feeders defective	2024/11/20 03:29:00	2024/11/20 04:19:00
6	20	F-mill short feeder not available	2024/11/20 04:19:00	2024/11/20 07:59:00
6	62	STEP loading test.	2024/11/20 07:59:00	2024/11/20 08:28:00
6	68	High stack emissions	2024/11/20 22:06:00	2024/11/20 22:47:00
6	118	High stack emissions.	2024/11/20 22:47:00	2024/11/21 00:12:00
6	124	STEP loading test	2024/11/21 00:12:00	2024/11/21 04:58:00
6	51	EFP B thrust bearing temperature spiking	2024/11/21 04:58:00	2024/11/21 05:03:00
6	62	STEP loading test	2024/11/22 00:09:00	2024/11/22 04:17:00
6	62	A-mill long feeder and F-mill short feeder defective	2024/11/22 04:17:00	2024/11/22 04:34:00
6	58	A-mill long feeder and F-mill short feeder defective	2024/11/22 04:34:00	2024/11/22 06:12:00
6	19	F-mill short feeder defective	2024/11/22 06:12:00	2024/11/22 08:27:00
6	109	B-mill both feeders tripped	2024/11/23 00:20:00	2024/11/23 03:42:00
6	19	B-mill long feeder defective.	2024/11/23 03:42:00	2024/11/23 04:58:00
6	20	AM: Super-heater safety v/v D lifting.	2024/11/23 07:25:00	2024/11/23 11:13:00
6	8	AM: Super-heater safety v/v D leg lifting.	2024/11/23 11:13:00	2024/11/23 12:07:00
6	18	AM: Super-heater safety v/v lifting.	2024/11/23 13:19:00	2024/11/24 07:15:00
6	61	Spinning Reserve	2024/11/24 12:16:00	2024/11/24 12:50:00
6	118	Spinning Reserve	2024/11/24 22:28:00	2024/11/25 00:35:00
6	118	Spinning Reserve	2024/11/25 06:39:00	2024/11/26 02:28:00
6	26	Spinning Reserve	2024/11/26 19:09:00	2024/11/27 10:39:00
6	18	D-mill short feeder blocked.	2024/11/27 10:50:00	2024/11/27 21:16:00
6	124	A,C&D mills feeders defective.	2024/11/27 21:16:00	2024/11/28 01:30:00
6	218	Spinning Reserve	2024/11/30 07:31:00	2024/11/30 14:55:00
6	118	Spinning Reserve	2024/11/30 15:40:00	2024/11/30 17:26:00
6	218	Spinning Reserve	2024/11/30 17:26:00	2024/11/30 19:15:00

6	116	Spinning Reserve	2024/11/30 19:15:00	2024/11/30 19:46:00
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PM Exceedances		
U1.	Routine manual rapping	12-Nov
	Manual rapping done.	
U1.	Poor esp Casing performance (LHO/RHI).	21-Nov
U1.	LHO ESP casing outage	24-Nov
U1.	RHI ESP casing outage	25-Nov
U1.	Routine manual rapping	12-Nov
	Manual rapping done.	
U1.	Poor esp Casing performance (LHO/RHI).	21-Nov
U1.	LHO ESP casing outage	24-Nov
U1.	RHI ESP casing outage	25-Nov
U1.	Routine manual rapping	12-Nov
	Manual rapping done.	
U1.	Poor esp Casing performance (LHO/RHI).	21-Nov
U1.	LHO ESP casing outage	24-Nov
U1.	RHI ESP casing outage	25-Nov
U2.	Poor ESP performance	02-Nov
U2.	Poor ESP performance	04-Nov
	ESP poor performance.	
	Manual rapping done.	
U2.	SO3 plant tripped.	05-Nov
U2.	Manual rapping done.	12-Nov
U2.	Poor ESP performance	02-Nov
U2.	Poor ESP performance	04-Nov
	ESP poor performance.	
	Manual rapping done.	
U2.	SO3 plant tripped.	05-Nov
U2.	Manual rapping done.	12-Nov
U2.	Poor ESP performance	02-Nov
U2.	Poor ESP performance	04-Nov
	ESP poor performance.	
	Manual rapping done.	
U2.	SO3 plant tripped.	05-Nov
U2.	Manual rapping done.	12-Nov

PM Exceedances		
U4.	Poor ESP casing performance. Manual rapping done.	03-Nov
U4.	Poor ESP casing performance.	05-Nov
U4.	Poor ESP casing performance. Dust plant issues.	06-Nov
U4.	Poor ESP casing performance. RHO Casing Outage.	08-Nov
U4.	RHO Casing washing	09-Nov
U4.	RHO Casing washing	10-Nov
U4.	RHO Casing washing	11-Nov
U4.	Clean rapping brought forward. Poor ESP casing performance.	14-Nov
U4.	Poor ESP casing performance. Manual rapping done.	15-Nov
U4.	RHI casing outage	17-Nov
U4.	RHI casing outage Manual rapping carried out and stopped due to Compartment 1 full of ash.	18-Nov
U4.	ESP casing poor performance. De - energise rapping done. B bucket elevator standing.	24-Nov
U4.	ESP poor casing performance. Clean rapping done. Faulty ESP rappers.	25-Nov
U4.	Poor ESP casing performance. Manual rapping done.	27-Nov
U4.	Poor ESP casing performance.	28-Nov

PM Exceedances		
U5.	Poor ESP casing performance (LHO).	12-Nov
U5.	Poor ESP casing performance (LHO).	15-Nov
U5.	Poor ESP casing performance.	17-Nov
U5.	ESP casing outage (LHO)	18-Nov
	SO3 plant leak investigation.	
U5.	Poor ESP casing performance.	21-Nov
	Poor ESP casing performance.	
U5.	Manual rapping done.	23-Nov
U5.	RHI ESP casing outage.	25-Nov
	Poor ESP casing performance.	
U5.	Clean rapping brought forward.	27-Nov
U5.	Poor ESP casing performance (Unavailability of spares.	28-Nov
U5.	Poor ESP casing performance (LHO).	12-Nov
U5.	Poor ESP casing performance (LHO).	15-Nov
U5.	Poor ESP casing performance.	17-Nov
U5.	ESP casing outage (LHO)	18-Nov
	SO3 plant leak investigation.	
U5.	Poor ESP casing performance.	21-Nov
	Poor ESP casing performance.	
U5.	Manual rapping done.	23-Nov
U5.	RHI ESP casing outage.	25-Nov
	Poor ESP casing performance.	
U5.	Clean rapping brought forward.	27-Nov
U5.	Poor ESP casing performance (Unavailability of spares.	28-Nov