



Mr. Mcebo Mkhathswa
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Date:
31 March 2025

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LRP01PLA000 _0441/20250313

Dear Mr. Mkhathswa

LETHABO POWER STATION EMISSION MONTHLY REPORT FOR FEBRUARY 2025

Please find attached Lethabo Power Station emission report for the month of February 2025.

Also attached are the Ambient Air Quality Monitoring Report, Complaints Register and the Fugitive Dust Fallout Monitoring Report for February 2025.

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

Lethabo Power Station

Report name: **Lethabo Power Station
February 2025
Emission Report**

Reference number: **LRP01PLA000 _0441/20250313**
Document Type: **Report**
Area of Applicability: **Environment**
Report Date: **March-2025**
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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 Feb-2025
	Coal	Tons	2 000 000	1 100 278
	Fuel Oil	Tons	1 700	3444.330
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Indicative Production Rate Feb-2025
	Energy	GWh	2 560.320	1 470.234
	Ash	Tons	770 000	436 700.191
	RE Ash	kg/MWh	Not Specified	297.028

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)	0.740
Ash Content	%	37.37 (Standard)	39.690

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 Feb-2025	Technology Type	SO ₃ Utilization Feb-2025
Unit 1	Electrostatic Precipitator (ESP)	99.46%	SO ₃	91.4%
Unit 2	Electrostatic Precipitator (ESP)	99.76%	SO ₃	95.3%
Unit 3	Electrostatic Precipitator (ESP)	97.78%	SO ₃	67.4%
Unit 4	Electrostatic Precipitator (ESP)	99.80%	SO ₃	95.5%
Unit 5	Electrostatic Precipitator (ESP)	99.27%	SO ₃	91.3%
Unit 6	Electrostatic Precipitator (ESP)	99.79%	SO ₃	97.8%

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	97.0	98.2	100.0
Unit 2	97.7	100.0	99.6
Unit 3	85.6	86.1	85.2
Unit 4	99.6	96.0	96.0
Unit 5	93.5	94.6	94.6
Unit 6	98.7	96.2	96.2

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 February 2025

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	509.2	3 174	1 516
Unit 2	136.7	2 429	819
Unit 3	766.4	1 309	426
Unit 4	129.8	2 734	1 240
Unit 5	554.5	3217	1114
Unit 6	142.2	2 837	1 210
SUM	2 238.7	15 699	6 326

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average PM (mg/Nm³)
Unit 1	18	10	0	0	10	278.2
Unit 2	7	11	0	0	11	124.8
Unit 3	5	7	0	0	7	1 797.9
Unit 4	16	6	0	0	6	86.7
Unit 5	7	16	0	0	16	335.4
Unit 6	20	2	0	0	2	149.1
SUM	73	52	0	0	52	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average SO ₂ (mg/Nm³)
Unit 1	28	0	0	0	0	1 639.1
Unit 2	22	0	0	0	0	1 895.4
Unit 3	14	0	0	0	0	1 878.2
Unit 4	23	0	0	0	0	1 723.9
Unit 5	26	0	0	0	0	1 834.4
Unit 6	24	0	0	0	0	2 023.9
SUM	137	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - February 2025

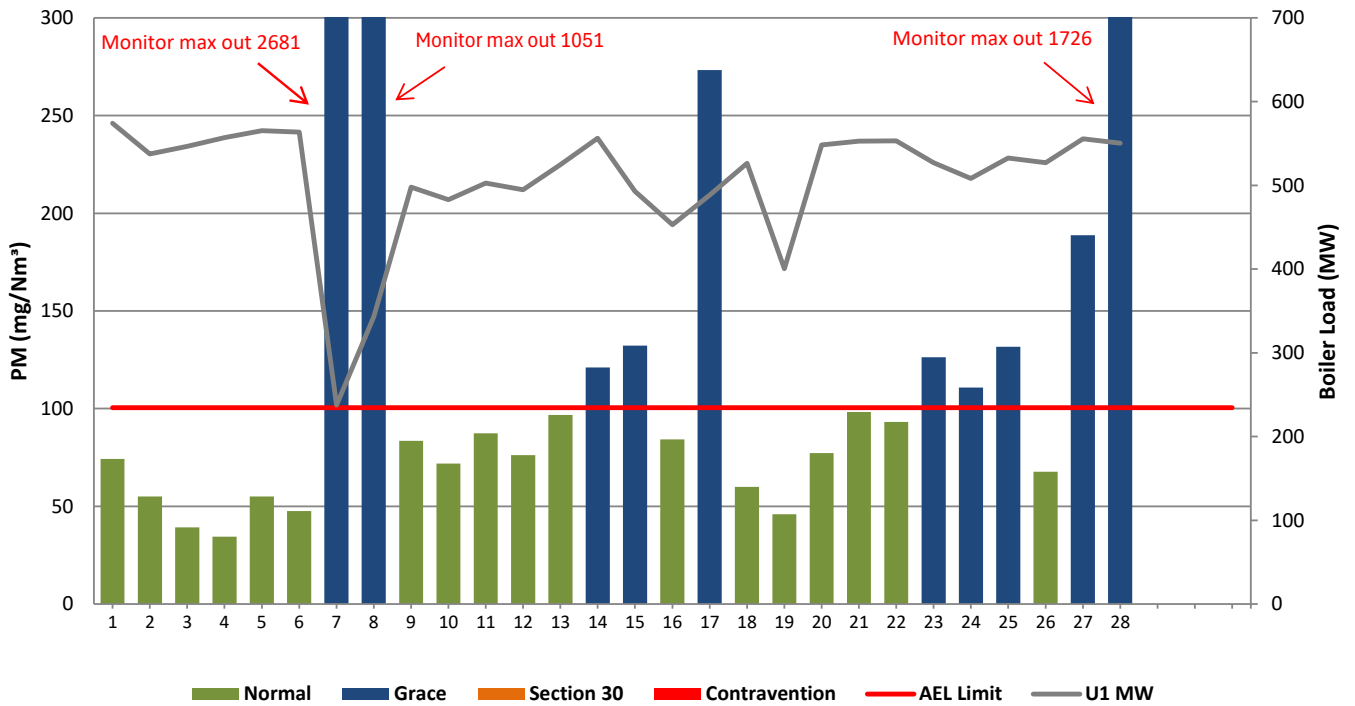
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm³)
Unit 1	28	0	0	0	0	777.0
Unit 2	22	0	0	0	0	630.5
Unit 3	14	0	0	0	0	602.9
Unit 4	23	0	0	0	0	761.0
Unit 5	26	0	0	0	0	627.3
Unit 6	24	0	0	0	0	848.5
SUM	137	0	0	0	0	

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

Table 6.5: Legend Description

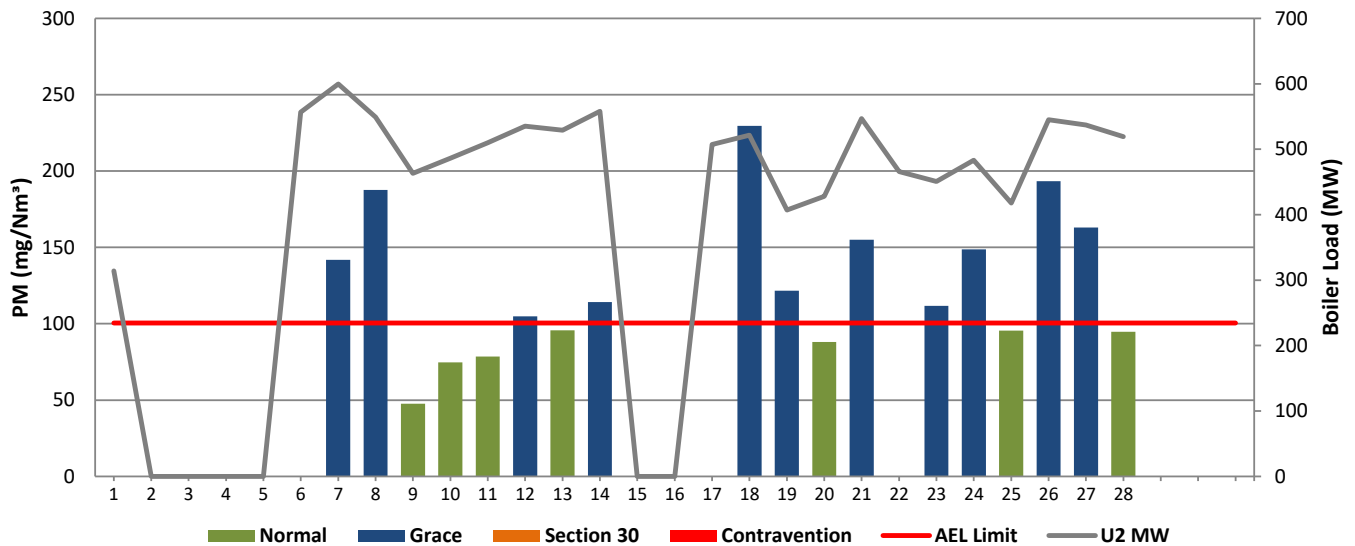
Condition	Colour	Description
Normal	GREEN	Emissions below Emission Limit Value (ELV)
Grace	BLUE	Emissions above the ELV during grace period
Section 30	ORANGE	Emissions above ELV during a NEMA S30 incident
Contravention	RED	Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Lethabo Unit 1 PM Emissions - February 2025



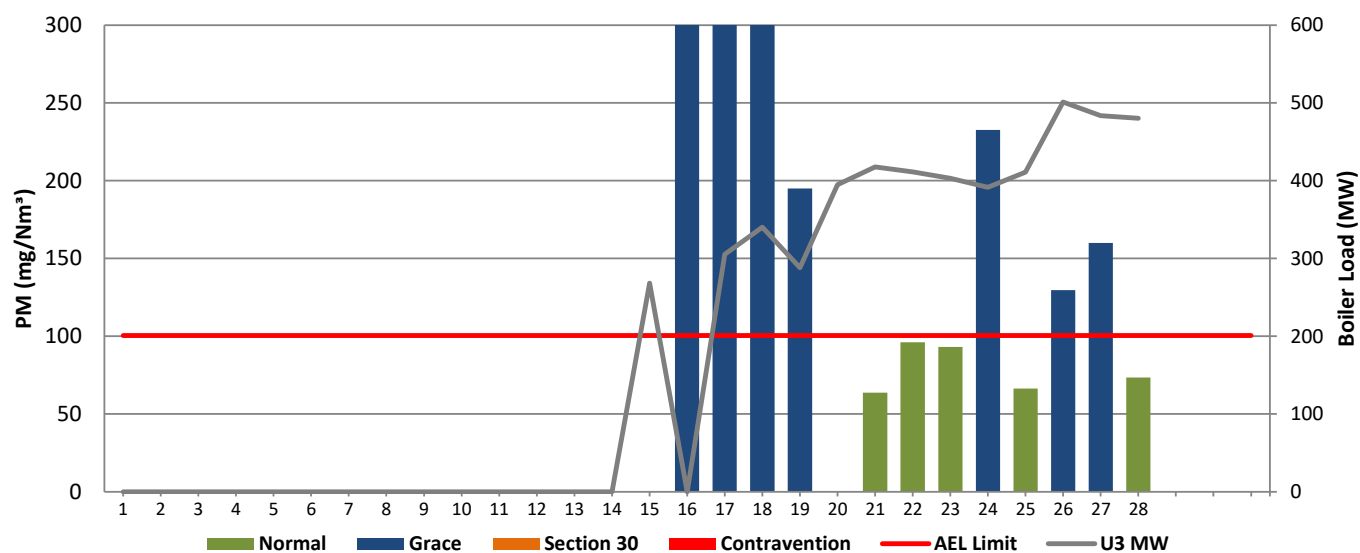
Reasons:	
Date	Description:
07-Feb	Unit 1 draught group tripped on LH side. No sulphur flow.
08-Feb	Unit 1 draught group tripped on LH side. No sulphur flow.
14-Feb	Poor ESP Casing performance.
15-Feb	Poor ESP Casing performance. SO3 Plant tripped due to air blower fault.
17-Feb	LHI ESP Casing outage.
23-Feb	Poor casing Performance (LHO & LHI)
24-Feb	Poor casing Performance LHI
25-Feb	Poor casing Performance LHI
27-Feb	High Hopper levels , Poor Casing Performance (LHI&LHO)
28-Feb	Poor ESP casing performance.

Figure 2: Lethabo Unit 2 PM Emissions - February 2025



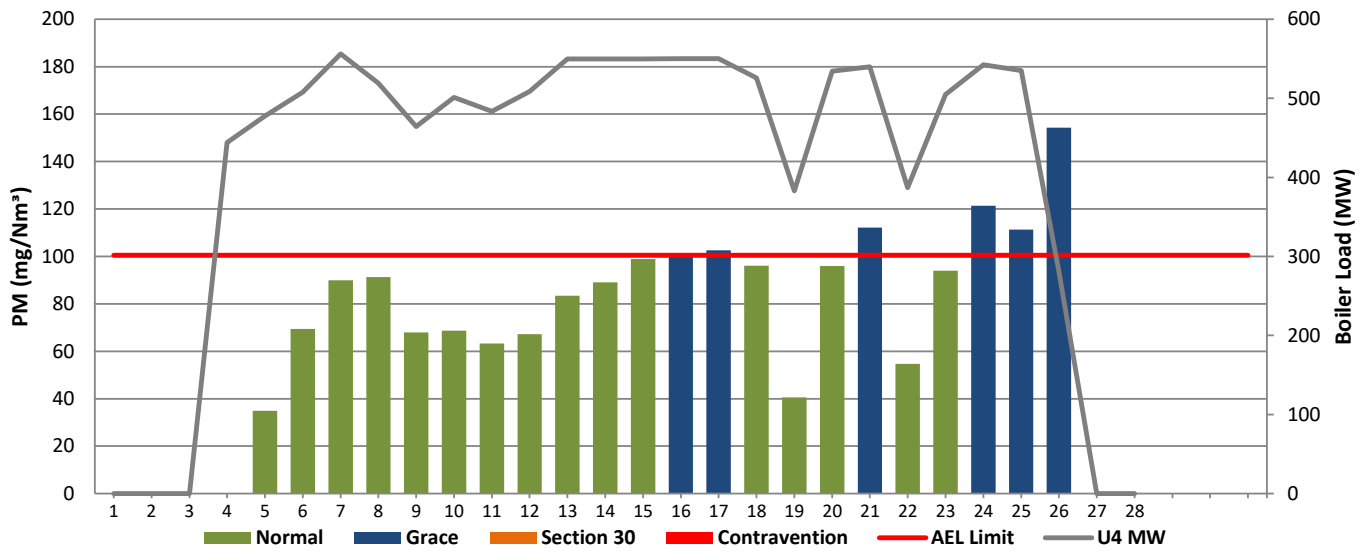
Reasons:	
Date	Description:
07-Feb	No sulphur flow due to burnt cables on sulphur flowmeter.
08-Feb	No sulphur flow due to burnt cables on sulphur flowmeter.
12-Feb	Oppr ESP casing performance.
14-Feb	Unit 2 shutdown for BTL.
18-Feb	Unit 2 start up condiditions.
19-Feb	Unit 2 start up condiditions. SO3 plant air inlet faulty. Clean rapping brought forward.
21-Feb	Unit tripped & unit start up
23-Feb	Poor casing Performance RHI
26-Feb	Clean rapping brought forward from 20H00 to 22H30
27-Feb	No sulphur flow due to burnt cables on sulphur flowmeter.

Figure 3: Lethabo Unit 3 PM Emissions - February 2025



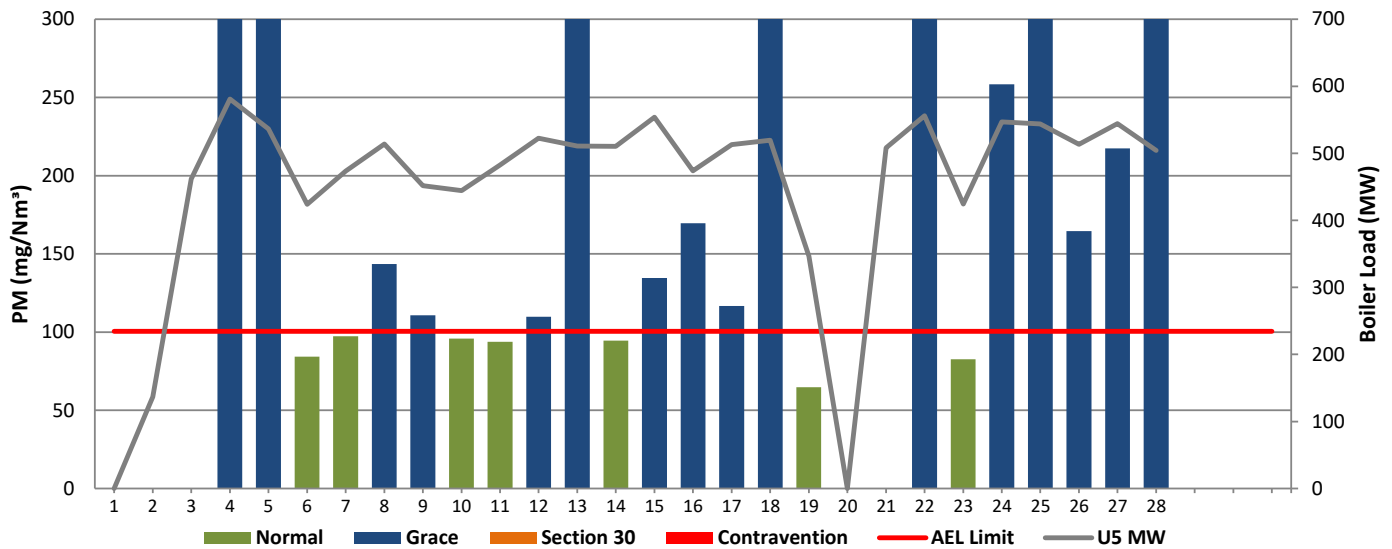
Reasons:	
Date	Description:
16-Feb	Light-up conditions (Monitor max out 1337)
17-Feb	Light-up conditions (Monitor max out 15936)
18-Feb	DHP issues. SO3 Plant on hold.
19-Feb	DHP issues,not a contravention as the 16th Feb the unit was off.
24-Feb	Unit light up
26-Feb	Poor casing Performance
27-Feb	Poor Casing Poerformance RHI

Figure 4: Lethabo Unit 4 PM Emissions - February 2025



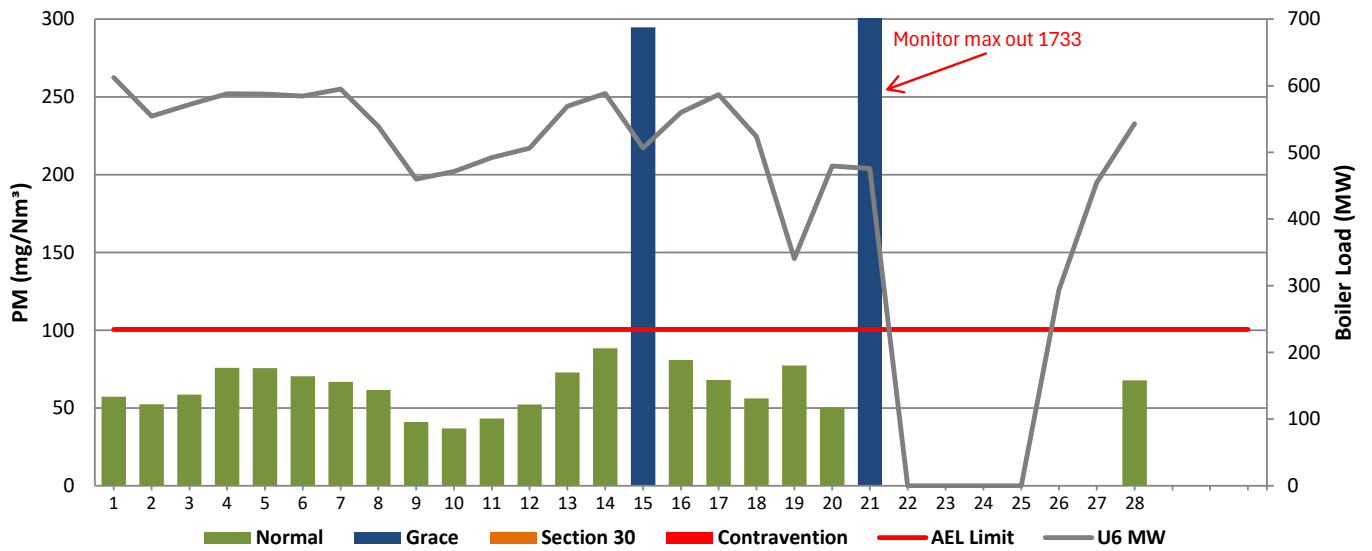
Reasons:	
Date	Description:
21-Feb	Poor ESP casings performance. High hopper levels. DHP issues.
24-Feb	Poor Casing Performance
25-Feb	Poor Casing performamnce
26-Feb	Unit shutdown for BTL

Figure 5: Lethabo Unit 5 PM Emissions - February 2025



Reasons:	
Date	Description:
04-Feb	The unit synchronised on 2025/02/03 @ 00:05, emission need to be below by 2025/02/06 @ 00:05 and remain below the limit until 2025/02/07 @ 23:59 (Monitor max out 668).
05-Feb	The unit synchronised on 2025/02/03 @ 00:05, emission need to be below by 2025/02/06 @ 00:05 and remain below the limit until 2025/02/07 @ 23:59 (Monitor max out 828).
08-Feb	Poor ESP casing performance.
09-Feb	Poor ESP casing performance.
12-Feb	Poor ESP casing performance (No spares).
13-Feb	Poor ESP casing performance (No spares). Manual rapping done. (Monitor max out 535)
15-Feb	ESP Casing poor performance.
16-Feb	Daily and monthly reports have a final PM value of 96 mg/Nm3 which is not an exceedance.
17-Feb	Poor ESP casing performance.
18-Feb	ESP casing poor performance. (Monitor max out 946), not a legal contravention as the unit was below on the 16th.
19-Feb	Unit shutdown for coal constraints.
22-Feb	Poor casing Performance (Monitor max out 1104).
24-Feb	High hopper levels. DP issues. Poor ESP casing performance.
25-Feb	Unit tripped (Monitor max out 494).
26-Feb	Light Up conditions
27-Feb	Light Up Conditions
28-Feb	Light Up Conditions (Monitor max out 1063).

Figure 6: Lethabo Unit 6 PM Emissions - February 2025



Reasons:	
Date	Description:
15-Feb	RHI ESP casing outage.
21-Feb	Unit shutdown

Figure 7: Lethabo Unit 1 SO₂ Emissions - February 2025

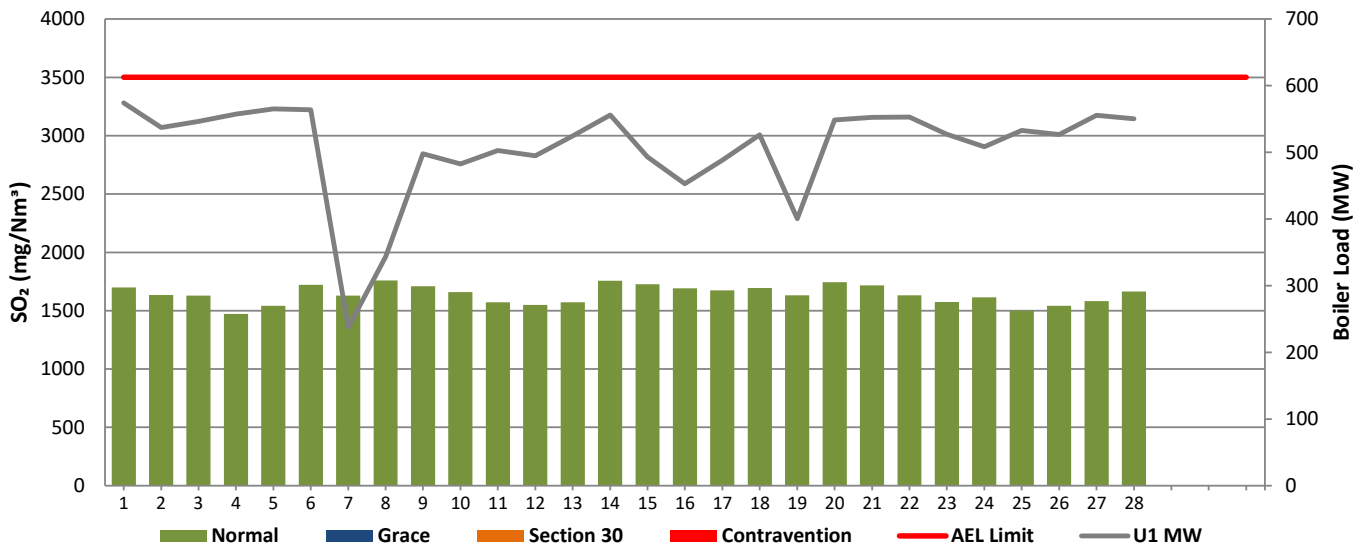


Figure 8: Lethabo Unit 2 SO₂ Emissions - February 2025

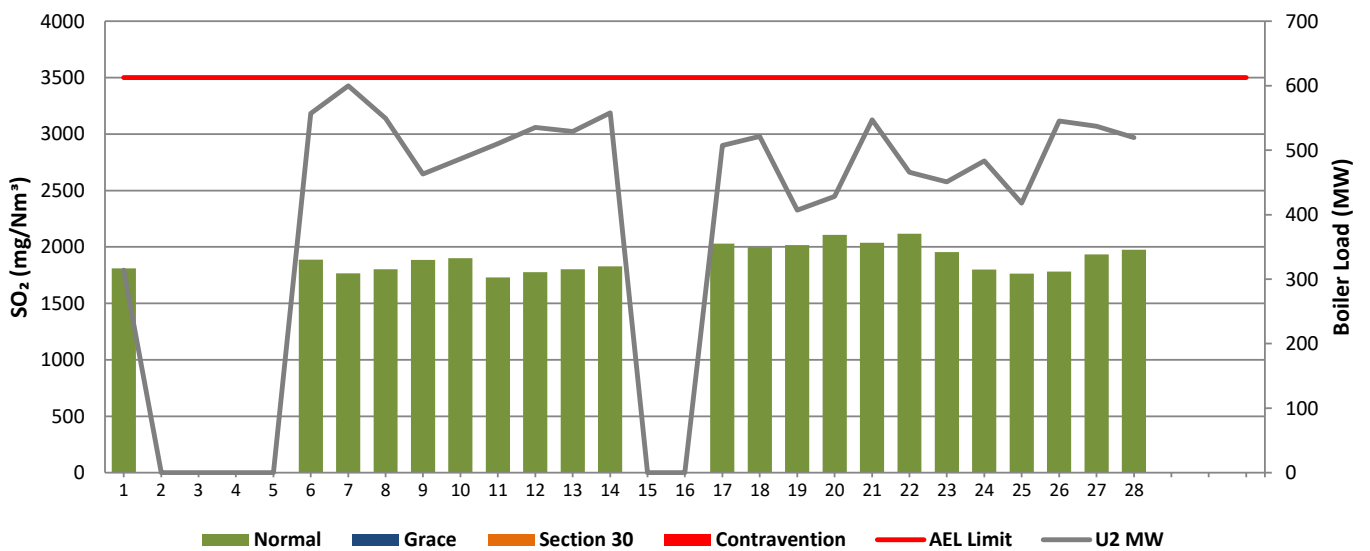


Figure 9: Lethabo Unit 3 SO₂ Emissions - February 2025

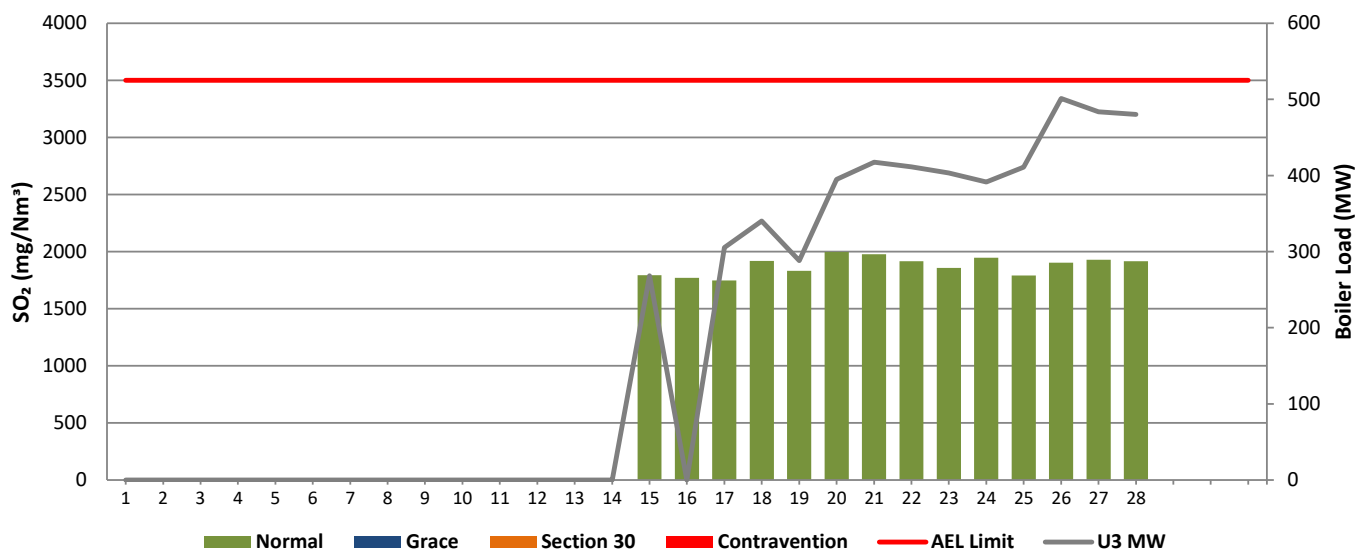


Figure 10: Lethabo Unit 4 SO₂ Emissions - February 2025

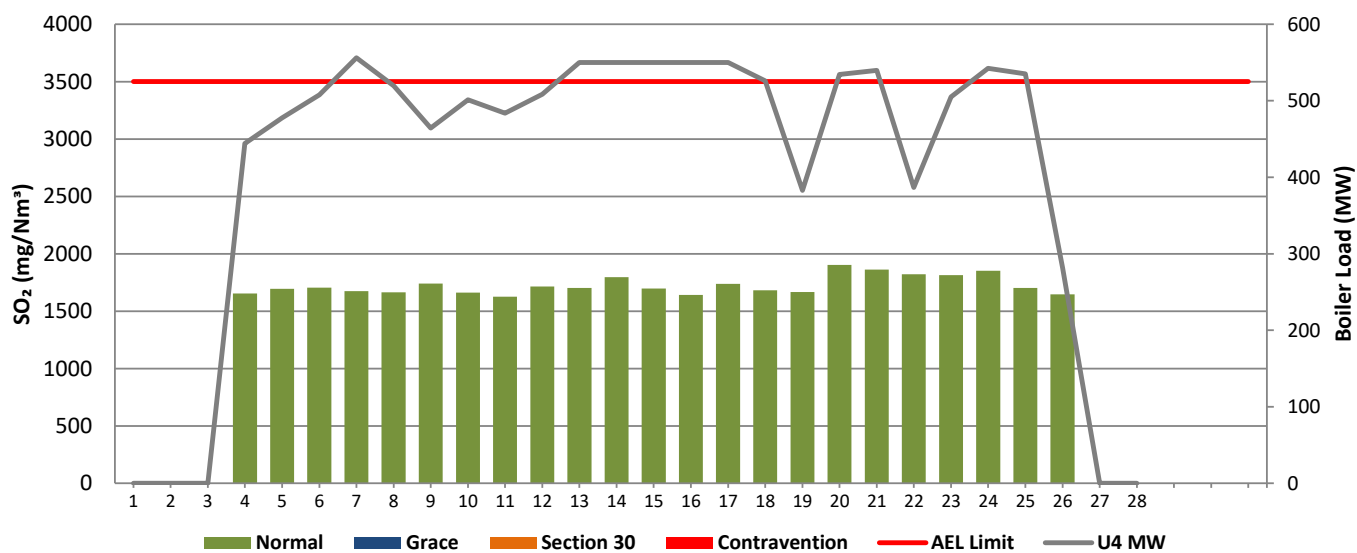


Figure 11: Lethabo Unit 5 SO₂ Emissions - February 2025

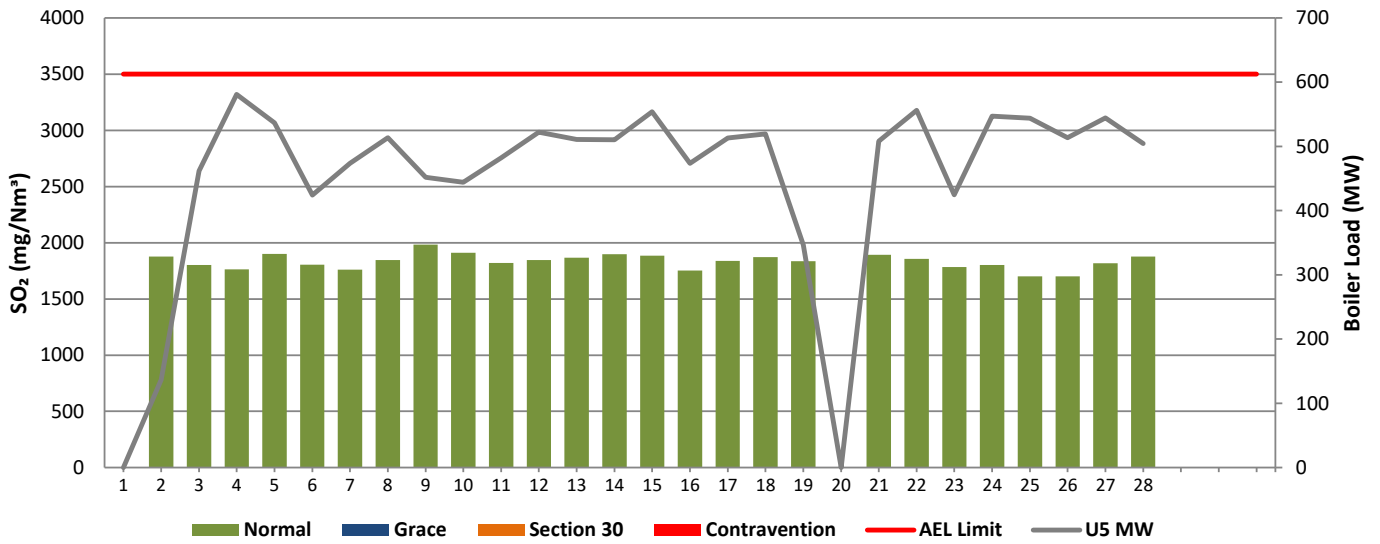


Figure 12: Lethabo Unit 6 SO₂ Emissions - February 2025

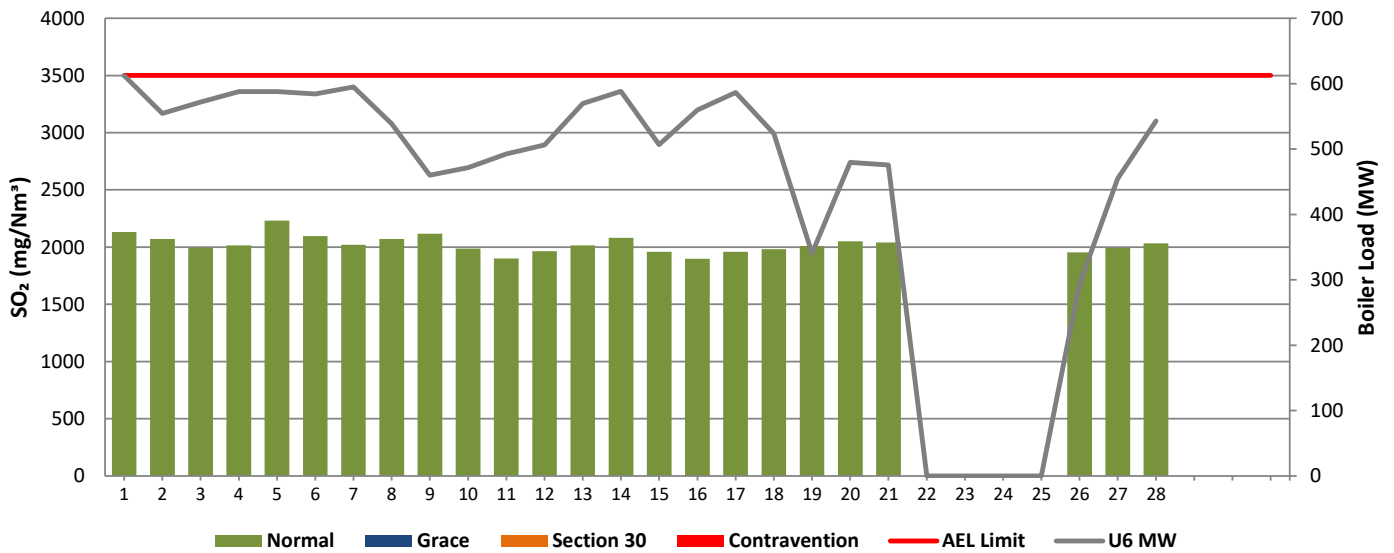


Figure 13: Lethabo Unit 1 NOx Emissions - February 2025

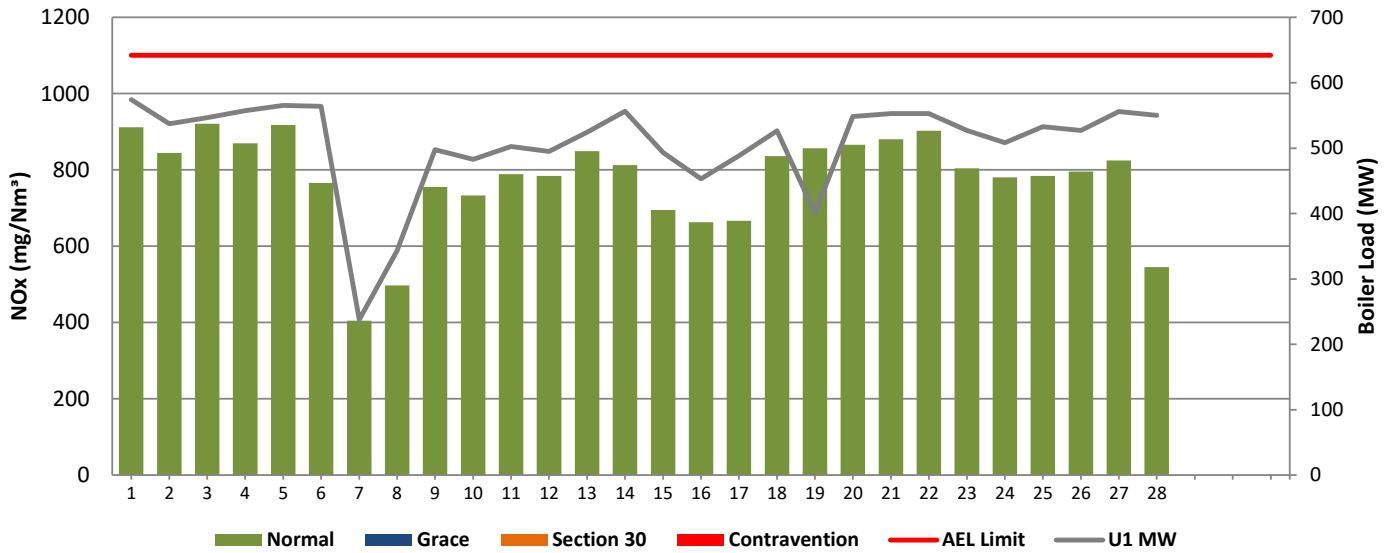


Figure 14: Lethabo Unit 2 NOx Emissions - February 2025

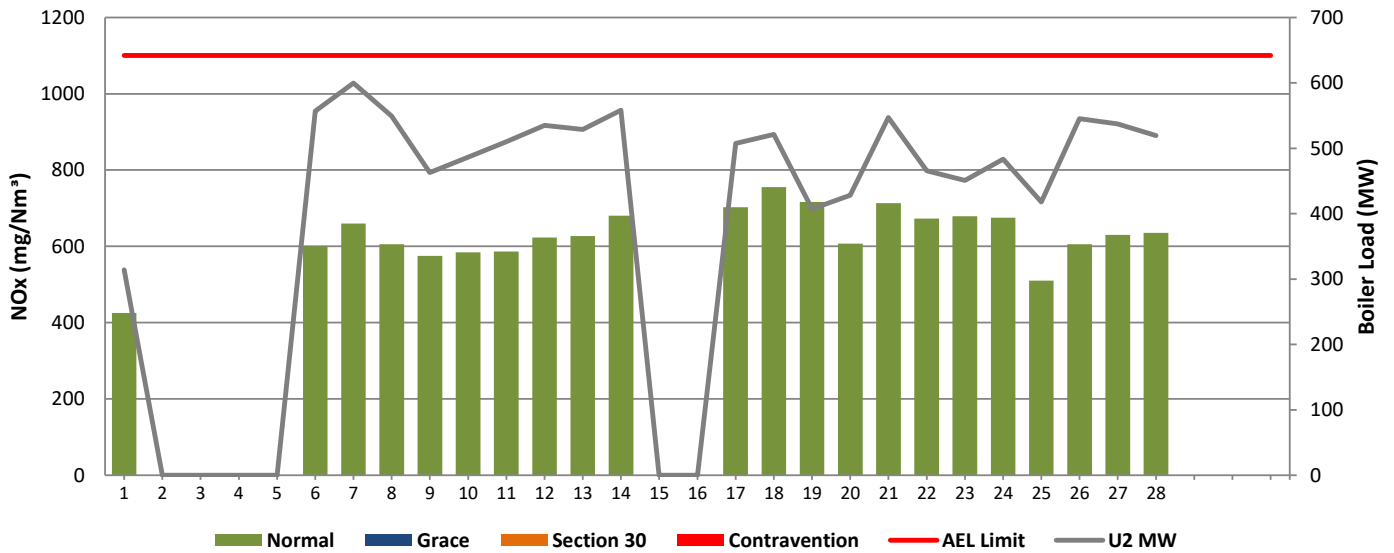


Figure 15: Lethabo Unit 3 NOx Emissions - February 2025

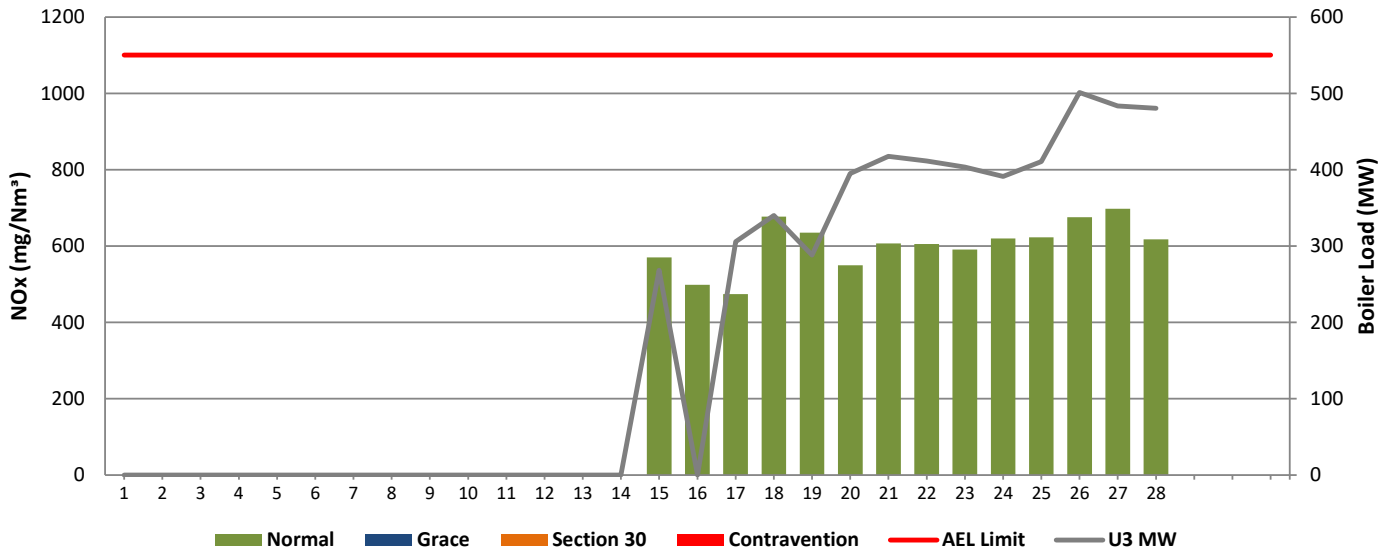


Figure 16: Lethabo Unit 4 NOx Emissions - February 2025

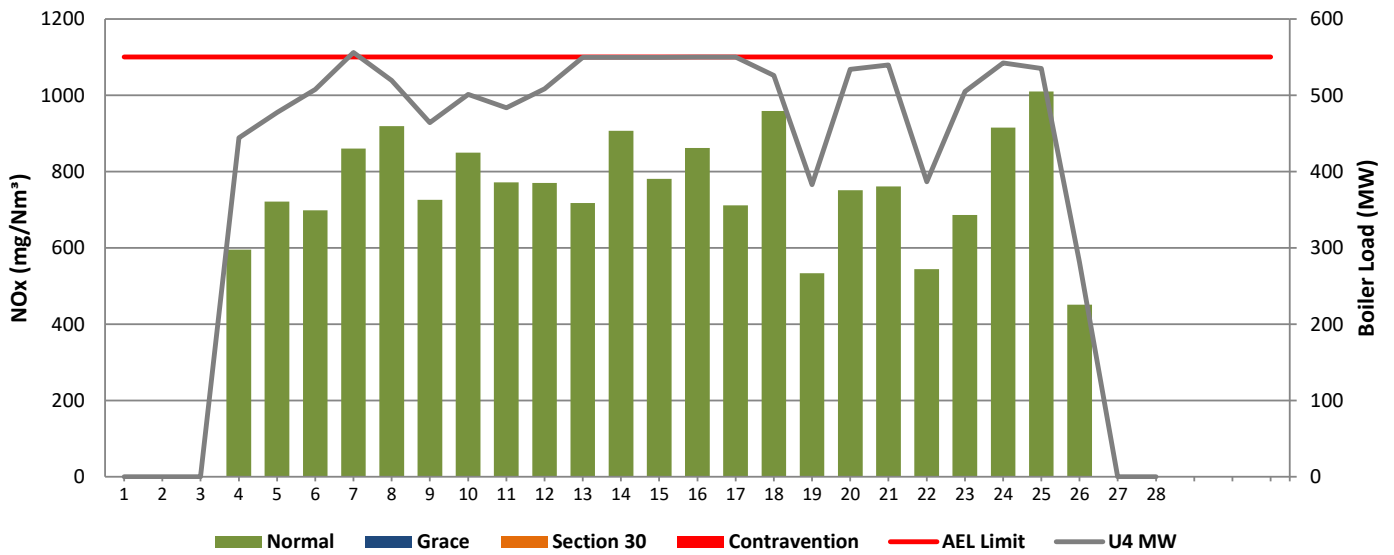


Figure 17: Lethabo Unit 5 NOx Emissions - February 2025

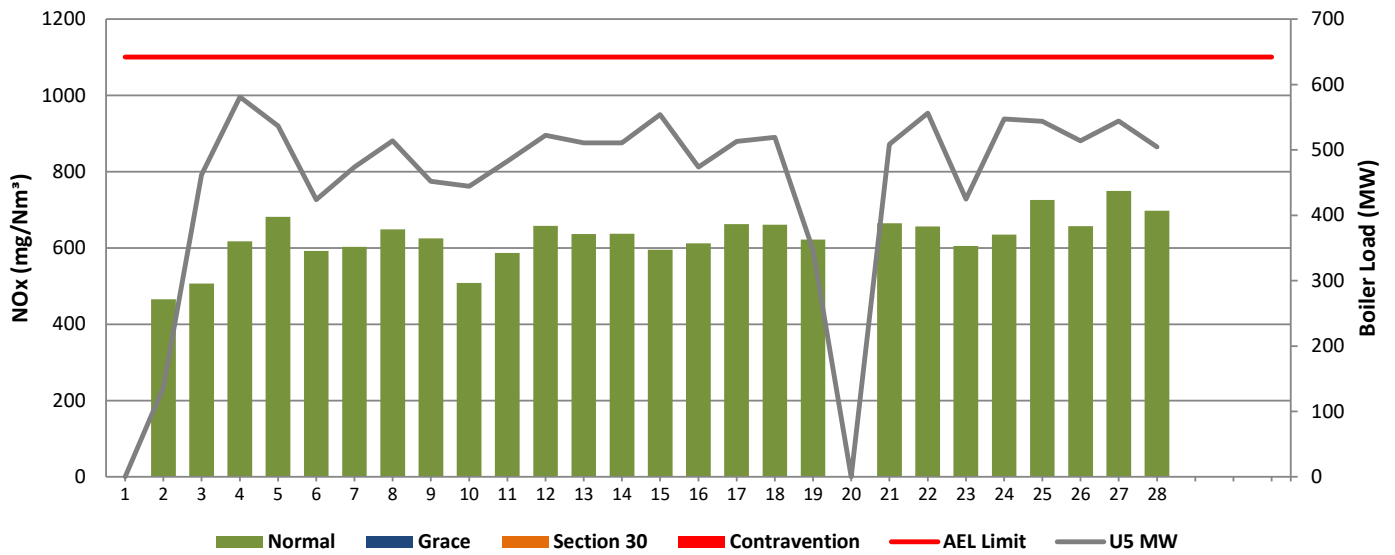
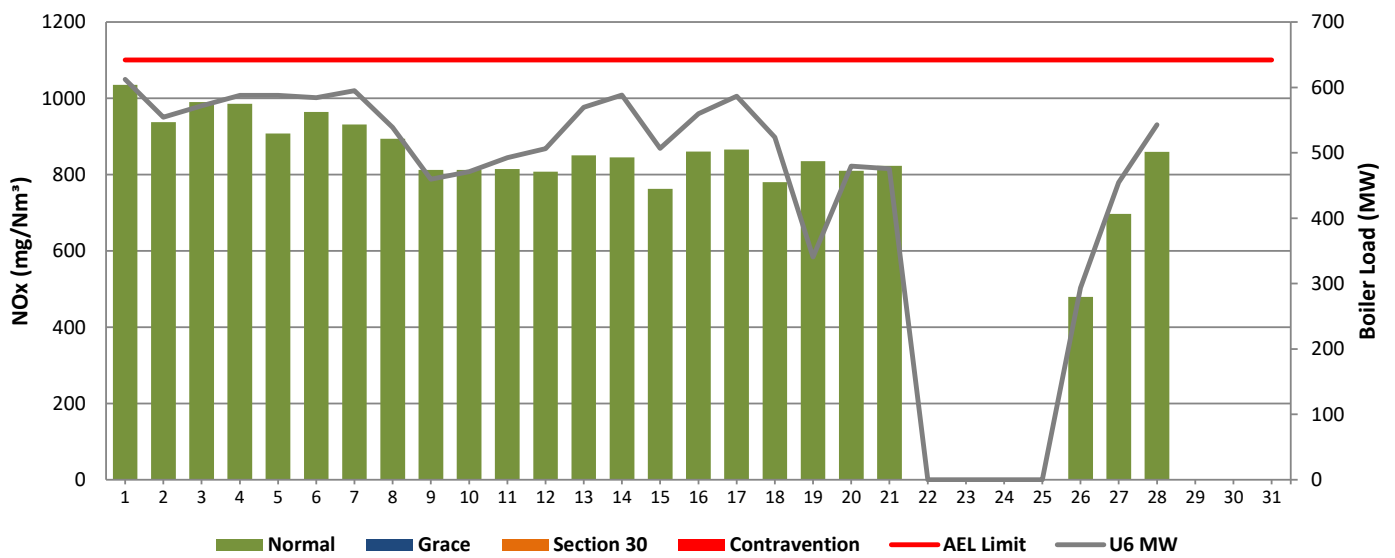


Figure 18: Lethabo Unit 6 NOx Emissions - February 2025



7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1: PM Start-up information for the month of February 2025

Unit No.1								
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)								
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)								
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)								

Unit No.2	<i>Boiler tube leak.</i>							
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM						
Fires in time	12:18 pm	2025/02/01						
Synch. to Grid (or BC)	3:49 pm	2025/02/01						
Fires in to BC (duration)	00:03:31	DD:HH:MM						
Emissions below limit from BC (end date)	6:00 am	2025/02/02						
Emissions below limit from BC (duration)	00:14:11	DD:HH:MM						

Unit No.3								
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)								
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)								
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)								

Unit No.4	Boiler tube leak.		Boiler tube leak		0			
Breaker Open (BO)			12:38 am	2025/02/26				
Draught Group (DG) Shut Down (SD)			4:00 pm	2025/02/26				
BO to DG SD (duration)		DD:HH:MM	00:15:22	DD:HH:MM		DD:HH:MM		
Fires in time	8:22 am	2025/02/04						
Synch. to Grid (or BC)	10:18 am	2025/02/04						
Fires in to BC (duration)	00:01:56	DD:HH:MM		DD:HH:MM		DD:HH:MM		
Emissions below limit from BC (end date)	11:00 am	2025/02/08						
Emissions below limit from BC (duration)	04:00:42	DD:HH:MM		DD:HH:MM		DD:HH:MM		

Unit No.5	<i>Boiler tube leak.</i>		<i>Tripped on overspeed</i>					
Breaker Open (BO)			8:53 pm	2025/02/02				
Draught Group (DG) Shut Down (SD)			DG did not trip or SD	DG did not trip or SD				
BO to DG SD (duration)		DD:HH:MM	n/a	DD:HH:MM				
Fires in time	6:11 pm	2025/02/02	6:11 pm	2025/02/03				
Synch. to Grid (or BC)	8:44 pm	2025/02/02	12:05 am	2025/02/03				
Fires in to BC (duration)	00:02:33	DD:HH:MM	#####	DD:HH:MM				
Emissions below limit from BC (end date)	not > limit	not > limit	not > limit	not > limit				
Emissions below limit from BC (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM				

Unit No.6	<i>Main steam stop valve glands repairs</i>							
Breaker Open (BO)	10:19 am	2025/02/21						
Draught Group (DG) Shut Down (SD)	12:35 am	2025/02/23						
BO to DG SD (duration)	01:14:16	DD:HH:MM						
Fires in time	9:00 am	2025/02/26						
Synch. to Grid (or BC)	11:16 am	2025/02/26						
Fires in to BC (duration)	00:02:16	DD:HH:MM						
Emissions below limit from BC (end date)	4:00 am	2025/02/28						
Emissions below limit from BC (duration)	01:16:44	DD:HH:MM						

7.2: Point Source emissions released during start-up (fires-in) and Shut-down (SD) for the month of February 2025 in mg/Nm³

8. MAINTENANCE

Unit 1				
Beginning of Maintenance	2025/02/17 00:32			
Reason for Maintenance	LHI Precip casing repairs			
End (Time):	2025/02/17 22:40			
Duration	22:08:00			

Unit 2				
Beginning of Maintenance	2025/02/27 13:39:00			
Reason for Maintenance	RH inner precip casing.			
End (Time):	2025/02/27 17:49:00			
Duration	4:10:00			

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

Unit 4				
Beginning of Maintenance				
Reason for Maintenance				
End (Time):				
Duration				

Unit 5				
Beginning of Maintenance				
Reason for Maintenance				
End (Time):				
Duration				

Unit 6				
Beginning of Maintenance	2025/02/15 02:10:00	2025/02/16 00:00		
Reason for Maintenance	RHI pricip casing repairs	RHI precip casing inlet and outlet dampers defective		
End (Time):	2025/02/16 00:00:00	2025/02/16 07:49		
Duration	21:50:00	7:49:00		

9. GENERAL

Unit 1 Monitor Reliability

28/02/2025: PM monitor Reliability low due to monitor max out.

Unit 2 Monitor Reliability

14/02/2025: PM monitor Reliability low due to monitor max out.

Unit 5 Monitor Reliability

18/02/2025: PM monitor Reliability low due to monitor max out.

Unit 6 Monitor Reliability

15/02/2025: PM monitor Reliability low due to monitor max out.

Unit 4 Gaseous Monitor Reliability

18/02/2025: Gas Monitor Reliability low (Monitor erratic)

Unit 6 Gaseous Monitor Reliability

09/02/2025: Gas Monitor Reliability low (Monitor erratic)

Unit 1 Gaseous Monitor Reliability

28/02/2025: Gas Monitor Reliability low (Monitor erratic)

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.

PM Exceedances		
U1.	Unit 1 draught group tripped on LH side. No sulphur flow.	07-Feb
U1.	Unit 1 draught group tripped on LH side. No sulphur flow.	08-Feb
U1.	Poor ESP Casing performance.	14-Feb
U1.	Poor ESP Casing performance. SO3 Plant tripped due to air blower fault.	15-Feb
U1.	LHI ESP Casing outage.	17-Feb
U1.	Poor casing Performance (LHO & LHI)	23-Feb
U1.	Poor casing Performance LHI	24-Feb
U1.	Poor casing Performance LHI	25-Feb
U1.	High Hopper levels , Poor Casing Performance (LHI&LHO)	27-Feb
U1.	Poor ESP casing performance.	28-Feb
U2.	No sulphur flow due to burnt cables on sulphur flowmeter.	07-Feb
U2.	No sulphur flow due to burnt cables on sulphur flowmeter.	08-Feb
U2.	Oppr ESP casing performance.	12-Feb
U2.	Unit 2 shutdown for BTL.	14-Feb
U2.	Unit 2 start up condditions.	18-Feb
U2.	Unit 2 start up condditions. SO3 plant air inlet faulty. Clean rapping brought forward.	19-Feb
U2.	Unit tripped & unit start up	21-Feb
U2.	Poor casing Performance RHI	23-Feb
U2.	Clean rapping brought forward from 20H00 to 22H30	26-Feb
U2.	Poor Casing performance RHI	27-Feb
U3.	DHP issues. SO3 Plant on hold.	18-Feb
U3.	DHP issues.	19-Feb
U3.	Unit light up	24-Feb
U3.	Poor casing Performance	26-Feb
U3.	Poor Casing Poerformance RHI	27-Feb
U4.	Poor ESP casings performance/. High hopper levels. DHP issues.	21-Feb
U4.	Poor Casing Performance	24-Feb
U4.	Poor Casing performamnce	25-Feb
U4.	Unit shutdown for BTL	26-Feb
U5.	The unit synchronised on 2025/02/03 @ 00:05, emission need to be below by 2025/02/06 @ 00:05 and remain below the limit until 2025/02/07 @ 23:59	04-Feb
U5.	The unit synchronised on 2025/02/03 @ 00:05, emission need to be below by 2025/02/06 @ 00:05 and remain below the limit until 2025/02/07 @ 23:59	05-Feb
U5.	Poor ESP casing performance.	08-Feb
U5.	Poor ESP casing performance.	09-Feb
U5.	Poor ESP casing performance (No spares).	12-Feb
U5.	Poor ESP casing performance (No spares). Manual rapping done.	13-Feb
U5.	ESP Csing poor performance.	15-Feb
U5.	Poor ESP casing performance.	17-Feb
U5.	ESP casing poor performance.	18-Feb
U5.	Unit shutdown for coal constraints.	19-Feb
U5.	Poor casing Performance	22-Feb
U5.	High hopper levels. DP issues. Poor ESP casing performance.	24-Feb
U5.	Unit tripped	25-Feb
U5.	Light Up conditions	26-Feb
PM Exceedances		
U5.	Light Up Conditions	27-Feb

U5.	Light Up Conditions	28-Feb
U6.	RHI ESP casing outage.	15-Feb
U6.	Unit shutdown	21-Feb

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
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
Dec-24	0.56	0.57	OFF	0.88	0.63	0.24	0.54
Jan-25	1.08	0.51	OFF	0.82	1.47	0.71	0.90
Feb-25	1.50	0.56	7.43	0.49	1.94	0.50	1.47

ADDENDUM TO MONTHLY EMISSIONS REPORT

12. DAILY EMISSIONS FIGURES

Final Dust Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
29-Jan	74	OFF	OFF	OFF	OFF	60	100
30-Jan	66	OFF	OFF	OFF	OFF	52	100
31-Jan	64	OFF	OFF	OFF	OFF	59	100
01-Feb	74	OFF	OFF	OFF	OFF	57	100
02-Feb	55	OFF	OFF	OFF	OFF	52	100
03-Feb	39	OFF	OFF	OFF	OFF	59	100
04-Feb	34	OFF	OFF	OFF	668	76	100
05-Feb	55	OFF	OFF	35	829	76	100
06-Feb	48	OFF	OFF	69	84	70	100
07-Feb	2681	142	OFF	90	97	67	100
08-Feb	1051	188	OFF	91	143	62	100
09-Feb	83	48	OFF	68	111	41	100
10-Feb	72	75	OFF	69	96	37	100
11-Feb	87	79	OFF	63	94	43	100
12-Feb	76	105	OFF	67	110	52	100
13-Feb	97	96	OFF	83	535	73	100
14-Feb	121	114	OFF	89	95	88	100
15-Feb	132	OFF	OFF	99	134	295	100
16-Feb	84	OFF	1338	101	170	81	100
17-Feb	273	OFF	15936	103	117	68	100
18-Feb	60	230	3190	96	980	56	100
19-Feb	46	122	195	41	65	77	100
20-Feb	77	88	OFF	96	OFF	50	100
21-Feb	98	155	64	112	OFF	1733	100
22-Feb	93	OFF	96	55	1105	OFF	100
23-Feb	126	112	93	94	83	OFF	100
24-Feb	111	149	233	121	258	OFF	100
25-Feb	132	96	66	111	494	OFF	100
26-Feb	68	193	130	154	165	OFF	100
27-Feb	189	163	160	OFF	217	OFF	100
28-Feb	1726	95	73	OFF	1064	68	100

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final SOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
29-Jan	1560	OFF	OFF	OFF	OFF	1939	3500
30-Jan	1511	OFF	OFF	OFF	OFF	1988	3500
31-Jan	1694	OFF	OFF	OFF	OFF	2153	3500
01-Feb	1699	1811	OFF	OFF	OFF	2133	3500
02-Feb	1635	OFF	OFF	OFF	1877	2070	3500
03-Feb	1630	OFF	OFF	OFF	1802	1995	3500
04-Feb	1473	OFF	OFF	1653	1764	2014	3500
05-Feb	1542	OFF	OFF	1693	1900	2232	3500
06-Feb	1722	1887	OFF	1703	1805	2098	3500
07-Feb	1631	1767	OFF	1674	1761	2019	3500
08-Feb	1758	1803	OFF	1664	1845	2071	3500
09-Feb	1709	1884	OFF	1740	1984	2117	3500
10-Feb	1660	1900	OFF	1662	1911	1987	3500
11-Feb	1573	1730	OFF	1626	1820	1900	3500
12-Feb	1549	1775	OFF	1715	1846	1963	3500
13-Feb	1571	1802	OFF	1701	1866	2015	3500
14-Feb	1757	1828	OFF	1795	1898	2082	3500
15-Feb	1728	OFF	1793	1698	1885	1960	3500
16-Feb	1692	OFF	1772	1641	1753	1897	3500
17-Feb	1673	2029	1748	1737	1838	1960	3500
18-Feb	1694	1999	1918	1683	1872	1981	3500
19-Feb	1633	2016	1833	1666	1836	2009	3500
20-Feb	1745	2106	1997	1903	OFF	2052	3500
21-Feb	1716	2036	1977	1861	1891	2040	3500
22-Feb	1632	2116	1915	1821	1857	OFF	3500
23-Feb	1574	1954	1858	1813	1785	OFF	3500
24-Feb	1614	1801	1947	1851	1803	OFF	3500
25-Feb	1499	1764	1791	1702	1700	OFF	3500
26-Feb	1542	1782	1902	1646	1700	1955	3500
27-Feb	1581	1933	1928	OFF	1817	1992	3500
28-Feb	1665	1974	1916	OFF	1876	2032	3500

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final NOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
29-Jan	921	OFF	OFF	OFF	OFF	1054	1100
30-Jan	937	OFF	OFF	OFF	OFF	1014	1100
31-Jan	914	OFF	OFF	OFF	OFF	1041	1100
01-Feb	912	426	OFF	OFF	OFF	1035	1100
02-Feb	844	OFF	OFF	OFF	465	938	1100
03-Feb	921	OFF	OFF	OFF	506	990	1100
04-Feb	870	OFF	OFF	596	617	985	1100
05-Feb	918	OFF	OFF	721	682	908	1100
06-Feb	766	600	OFF	699	592	964	1100
07-Feb	405	660	OFF	860	603	931	1100
08-Feb	497	606	OFF	919	648	894	1100
09-Feb	755	575	OFF	726	625	812	1100
10-Feb	733	584	OFF	850	508	812	1100
11-Feb	789	586	OFF	772	587	815	1100
12-Feb	785	623	OFF	770	658	808	1100
13-Feb	849	627	OFF	717	637	850	1100
14-Feb	812	681	OFF	907	637	845	1100
15-Feb	695	OFF	571	781	595	763	1100
16-Feb	662	OFF	499	862	612	861	1100
17-Feb	666	702	474	711	662	866	1100
18-Feb	836	755	677	959	661	780	1100
19-Feb	857	716	635	534	622	835	1100
20-Feb	866	607	549	751	OFF	810	1100
21-Feb	881	713	607	761	665	823	1100
22-Feb	903	673	605	545	656	OFF	1100
23-Feb	804	679	591	686	605	OFF	1100
24-Feb	781	675	620	916	635	OFF	1100
25-Feb	784	510	623	1010	726	OFF	1100
26-Feb	795	606	676	451	657	480	1100
27-Feb	825	630	697	OFF	750	697	1100
28-Feb	546	635	617	OFF	698	859	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
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
Dec-24	99.39%	0.76	99.24%	0.95	100.00%	0.00	99.18%	1.01	99.96%	0.05	99.27%	0.91
Jan-25	98.99%	1.3	100.00%	0.0	100.00%	0.0	100.00%	0.0	98.40%	2.0	100.00%	0.0
Feb-25	99.18%	0.9	99.84%	0.2	100.00%	0.0	100.00%	0.0	100.00%	0.0	98.90%	1.2

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
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%	0.02
Oct-24	99.85%	0.0	95.65%	1.3	Off-line	Off-line	98.92%	0.3	93.82%	1.9	99.59%	0.13
Nov-24	99.99%	0.0	96.60%	1.0	Off-line	Off-line	99.17%	0.3	97.46%	0.8	99.21%	0.24
Dec-24	52.80%	14.6	27.08%	22.6	Off-line	Off-line	77.33%	7.0	66.67%	10.3	60.94%	12.11
Jan-25	95.59%	1.4	93.50%	2.0	Off-line	Off-line	96.18%	1.2	90.28%	3.0	94.33%	1.8
Feb-25	91.37%	2.4	95.28%	1.3	67.36%	913.89%	95.45%	1.3	91.35%	2.4	97.77%	0.6

ADDENDUM TO MONTHLY EMISSIONS REPORT

Particulate Emission Monitors

Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
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%
Dec-24	100.00%	96.61%	OFF	98.22%	96.26%	99.60%
Jan-25	96.64%	98.67%	OFF	87.85%	92.93%	99.02%
Feb-25	98.72%	97.70%	85.64%	99.62%	93.53%	98.72%

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
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%
Dec-24	57.50%	57.50%	37.50%	37.50%	0.00%	0.00%	79.71%	79.71%	66.67%	66.67%	65.65%	65.73%
Jan-25	99.26%	99.09%	99.33%	99.33%	0.00%	0.00%	100.00%	96.43%	100.00%	100.00%	100.00%	100.00%
Feb-25	98.21%	100.00%	100.00%	99.60%	86.08%	85.19%	96.01%	96.01%	94.55%	94.55%	96.18%	96.18%

Oxygen Monitor Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
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%
Dec-24	57.50%	37.50%	0.00%	79.71%	66.67%	65.73%
Jan-25	99.55%	99.50%	0.00%	98.40%	99.43%	82.47%
Feb-25	99.70%	99.24%	85.19%	95.83%	94.39%	60.94%

ADDENDUM TO MONTHLY EMISSIONS REPORT

14. EFFICIENCY

ESP Efficiency (%)						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Mar-24	99.519%	99.614%	99.393%	99.559%	99.474%	Unit Off
Apr-24	99.901%	99.698%	99.774%	99.704%	99.714%	Unit Off
May-24	99.906%	99.582%	99.771%	99.525%	99.654%	Unit Off
Jun-24	99.89%	99.55%	99.82%	99.62%	99.75%	Unit Off
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	99.669%	99.637%	99.856%
Nov-24	99.838%	99.782%	Unit Off	99.515%	99.662%	99.888%
Dec-24	99.773%	99.722%	Unit Off	99.513%	99.695%	99.891%
Jan-25	99.573%	99.764%	Unit Off	99.650%	99.408%	99.613%
Feb-25	99.455%	99.758%	97.777%	99.804%	99.266%	99.787%

15. REMARKS

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
1	38	ID Fans not coping	2025/02/01 00:00:00	2025/02/14 08:59:00
1	323	3.3KVservice C board tripped on earth fault (A,B&C Mills o/c).	2025/02/07 00:26:00	2025/02/07 03:40:00
1	458	3,3KV Service board C tripped on earth fault	2025/02/07 03:40:00	2025/02/07 04:31:00
1	342	3,3KV Service board C tripped on earth fault	2025/02/07 04:31:00	2025/02/07 05:02:00
1	441	3,3KV Serice board C tripped on earth fault	2025/02/07 05:02:00	2025/02/07 05:53:00
1	347	3,3KV Service board C tripped on earth fault	2025/02/07 05:53:00	2025/02/07 06:27:00
1	340	3,3KV Service board C tripped on earth fault	2025/02/07 06:27:00	2025/02/07 13:30:00
1	330	3,3KV Service board C tripped on earth fault	2025/02/07 13:30:00	2025/02/07 19:12:00
1	340	3,3KV Service board C tripped on earth fault	2025/02/07 19:12:00	2025/02/08 14:50:00
1	180	Spinning Reserve	2025/02/08 14:50:00	2025/02/08 17:19:00
1	80	Spinning Reserve	2025/02/08 17:19:00	2025/02/08 19:07:00
1	80	EF:High stack emissions	2025/02/09 18:38:00	2025/02/09 22:43:00
1	91	Spinning Reserve	2025/02/09 21:17:00	2025/02/09 22:43:00
1	171	Spinning Reserve	2025/02/09 22:43:00	2025/02/09 23:49:00
1	180	Spinning Reserve	2025/02/11 20:57:00	2025/02/11 21:44:00
1	70	Spinning Reserve	2025/02/11 21:44:00	2025/02/11 22:00:00
1	70	Correlation test	2025/02/11 22:00:00	2025/02/12 01:52:00
1	180	Correlation test	2025/02/12 01:52:00	2025/02/12 04:57:00
1	180	Correlation test	2025/02/12 21:20:00	2025/02/13 04:32:00
1	38	Correlation test	2025/02/14 08:59:00	2025/02/14 16:33:00
1	29	AM: HP control v/v 3&4 and IP control v/v 1 closed	2025/02/14 10:03:00	2025/02/14 11:46:00
1	38	ID fans not coping	2025/02/14 16:33:00	2025/02/28 23:59:59
1	180	EF:High stack emissions	2025/02/15 16:22:00	2025/02/16 00:33:00
1	180	EF: High stack emissions	2025/02/16 09:18:00	2025/02/17 00:32:00
1	80	LHI Precip casing repairs	2025/02/17 00:32:00	2025/02/17 22:40:00
1	180	Coal constrains.	2025/02/18 20:06:00	2025/02/20 03:08:00
1	10	Boiler pressure high	2025/02/20 03:08:00	2025/02/20 05:20:00
1	10	C-mill feeder repair.	2025/02/20 18:03:00	2025/02/22 18:05:00
1	20	C mill long feeder O/C	2025/02/22 18:05:00	2025/02/23 22:09:00
1	80	C mill seal air damper repairs and conveyor belt replacement.	2025/02/23 22:09:00	2025/02/24 04:22:00
1	38	Spinning Reserve	2025/02/23 22:54:00	2025/02/24 00:29:00
1	177	High stack emissions.	2025/02/26 00:37:00	2025/02/26 06:17:00
2	593	Boiler tube leak.	2025/02/01 00:00:00	2025/02/01 15:49:00
2	297	System Generated Ramp Event for Event id : 2021518	2025/02/01 15:49:00	2025/02/01 18:49:00
2	237	Boiler pressure unstable.	2025/02/01 18:49:00	2025/02/01 19:23:00
2	593	Boiler tube leak	2025/02/01 19:23:00	2025/02/06 04:13:00
2	297	System Generated Ramp Event for Event id : 2023840	2025/02/06 04:13:00	2025/02/06 07:13:00
2	109	EF: 14Mpa Pressure restriction.	2025/02/06 07:13:00	2025/02/06 10:01:00
2	18	ID fans not coping due to ducting damage.	2025/02/06 10:14:00	2025/02/12 04:51:00
2	97	Spinning Reserve	2025/02/08 09:39:00	2025/02/08 18:17:00
2	94	Spinning Reserve	2025/02/08 21:11:00	2025/02/08 22:15:00
2	155	EF: Maual rapping.	2025/02/08 22:16:00	2025/02/09 04:40:00
2	97	B mill temparing air damper faulty	2025/02/09 04:40:00	2025/02/09 05:04:00

2	97	Spinning Reserve	2025/02/09 05:04:00	2025/02/09 10:35:00
2	192	Spinning Reserve	2025/02/09 10:35:00	2025/02/09 16:36:00
2	100	Spinning Reserve	2025/02/09 16:36:00	2025/02/09 21:07:00
2	115	Spinning Reserve	2025/02/09 21:07:00	2025/02/09 21:30:00
2	148	Spinning Reserve	2025/02/09 21:30:00	2025/02/10 04:15:00
2	100	Spinning Reserve	2025/02/10 04:15:00	2025/02/10 07:40:00
2	199	Spinning Reserve	2025/02/10 07:40:00	2025/02/10 15:33:00
2	95	Spinning Reserve	2025/02/10 15:33:00	2025/02/10 16:40:00
2	85	Spinning Reserve	2025/02/10 23:11:00	2025/02/11 19:43:00
2	88	Spinning Reserve	2025/02/11 19:43:00	2025/02/11 22:35:00
2	90	Spinning Reserve	2025/02/12 02:42:00	2025/02/12 04:34:00
2	32	ID fans not coping due to ducting damage	2025/02/12 04:51:00	2025/02/13 04:53:00
2	80	EF:High stack emissions	2025/02/12 22:18:00	2025/02/13 01:21:00
2	179	EF:High stack emissions	2025/02/13 01:21:00	2025/02/13 04:53:00
2	33	ID Fans not coping due to ducting damage	2025/02/13 04:53:00	2025/02/13 16:52:00
2	76	EF: High stack emissions	2025/02/13 11:38:00	2025/02/13 16:52:00
2	30	ID Fans not coping due to ducting damage	2025/02/13 16:52:00	2025/02/14 16:24:00
2	82	Mill load lines	2025/02/13 21:10:00	2025/02/14 04:45:00
2	593	Low drum level	2025/02/14 16:24:00	2025/02/14 20:00:00
2	593	Boiler tube leak repairs	2025/02/14 20:00:00	2025/02/17 02:12:00
2	297	System Generated Ramp Event for Event id : 2027678 First Outage	2025/02/17 02:12:00	2025/02/17 03:42:00
2	297	System Generated Ramp Event for Event id : 2027720	2025/02/17 03:42:00	2025/02/17 05:12:00
2	211	pressure restriction of 14Mpa	2025/02/17 05:12:00	2025/02/17 07:30:00
2	168	Boiler seal problem and temperature rises.	2025/02/17 07:30:00	2025/02/17 08:49:00
2	115	E mill problems	2025/02/17 08:49:00	2025/02/17 10:56:00
2	36	ID fans not coping due to ducting damage.	2025/02/17 10:56:00	2025/02/17 20:14:00
2	64	ID Fans not coping due to ducting damage	2025/02/17 20:14:00	2025/02/21 17:47:00
2	153	Coal constrains.	2025/02/18 20:18:00	2025/02/19 13:16:00
2	104	Coal constraints.	2025/02/19 13:16:00	2025/02/19 14:54:00
2	150	Coal constraints	2025/02/19 14:54:00	2025/02/20 04:02:00
2	100	EF:High stack emissions	2025/02/20 05:33:00	2025/02/20 06:25:00
2	151	EF:High stack emissions	2025/02/20 08:22:00	2025/02/21 01:02:00
2	593	Unit tripped on low drum level	2025/02/21 17:47:00	2025/02/22 00:49:00
2	297	System Generated Ramp Event for Event id : 2029706	2025/02/22 00:49:00	2025/02/22 02:19:00
2	295	A,E&F mills not available	2025/02/22 02:19:00	2025/02/22 02:28:00
2	268	A,E&F mills not available	2025/02/22 02:28:00	2025/02/22 02:43:00
2	186	F mill not available	2025/02/22 02:43:00	2025/02/22 05:50:00
2	133	A&E mills not available	2025/02/22 05:50:00	2025/02/22 06:05:00
2	115	A mill not available	2025/02/22 06:05:00	2025/02/22 06:33:00
2	68	ID Fans not coping due to ducting damage	2025/02/22 06:33:00	2025/02/28 23:59:59
2	50	D-mill feeders defective.	2025/02/22 07:20:00	2025/02/22 20:31:00
2	100	High boiler pressure due high PA flows	2025/02/22 20:31:00	2025/02/23 06:00:00
2	150	High boiler pressure due high PA flows & D & E Mill feeders not available	2025/02/23 06:00:00	2025/02/23 08:35:00
2	100	B short feeder, D feeder on PTW & E feeders	2025/02/23 08:35:00	2025/02/23 18:06:00
2	48	D & E mill not available	2025/02/23 18:06:00	2025/02/24 00:02:00
2	32	Low boiler ressure.	2025/02/23 19:31:00	2025/02/23 23:01:00
2	17	Low boiler pressure	2025/02/23 23:01:00	2025/02/24 00:02:00
2	94	D&E mills problems	2025/02/24 00:02:00	2025/02/24 05:50:00
2	70	AM: D&E mills problems	2025/02/24 05:50:00	2025/02/24 07:29:00
2	56	D&E mills problems	2025/02/24 07:29:00	2025/02/25 04:42:00
2	89	Manual rapping	2025/02/24 23:52:00	2025/02/25 01:35:00
2	9	Manual rapping	2025/02/25 01:35:00	2025/02/25 02:30:00
2	84	High stack emissions	2025/02/25 02:30:00	2025/02/25 04:42:00
2	137	High stack emissions.	2025/02/25 04:42:00	2025/02/26 01:19:00
2	5	Boiler pressure high	2025/02/27 08:13:00	2025/02/28 23:59:59
2	40	RH inner precip casing.	2025/02/27 13:39:00	2025/02/27 17:49:00
2	40	High stack emissions	2025/02/28 10:03:00	2025/02/28 23:59:59
3	593	IR ESP & S03 PLANT	2025/02/01 00:00:00	2025/02/05 23:58:00
3	593	System Generated Slip Event linked to PCLF Event : 1975527	2025/02/05 23:58:00	2025/02/15 04:02:00
3	297	System Generated Ramp Event for Event id : 1975527	2025/02/15 04:02:00	2025/02/15 07:02:00
3	258	Mill optimization	2025/02/15 07:02:00	2025/02/15 07:36:00
3	350	Mill optimization	2025/02/15 07:36:00	2025/02/15 10:15:00

3	593	Manually tripped due to generator rotor earth fault.	2025/02/15 10:15:00	2025/02/17 14:32:00
3	297	System Generated Ramp Event for Event id : 2027836	2025/02/17 14:32:00	2025/02/17 17:32:00
3	365	Chemistry control-silica removal	2025/02/17 17:32:00	2025/02/17 20:15:00
3	268	Chemistry control - silica removal	2025/02/17 20:15:00	2025/02/17 21:08:00
3	238	Chemistry control - silica removal	2025/02/17 21:08:00	2025/02/17 21:35:00
3	218	Chemistry control - silica removal	2025/02/17 21:35:00	2025/02/17 23:58:00
3	170	Chemistry control - silica removal	2025/02/17 23:58:00	2025/02/18 01:22:00
3	218	Chemistry control - silica removal	2025/02/18 01:22:00	2025/02/18 02:55:00
3	250	Chemistry control - silica removal	2025/02/18 02:55:00	2025/02/18 05:20:00
3	308	Chemistry control - silica removal	2025/02/18 05:20:00	2025/02/18 06:40:00
3	300	Chemistry control - silica removal	2025/02/18 06:40:00	2025/02/18 07:49:00
3	268	Chemistry control - silica removal	2025/02/18 07:49:00	2025/02/18 17:49:00
3	268	precips and SO3 plant optimization.	2025/02/18 17:49:00	2025/02/19 05:46:00
3	593	Coal constrains.	2025/02/19 05:46:00	2025/02/20 12:25:00
3	296	System Generated Ramp Event for Event id : 2028873	2025/02/20 12:25:00	2025/02/20 14:55:00
3	218	Precips and SO3 plant optimization	2025/02/20 14:55:00	2025/02/20 15:43:00
3	170	Precips and SO3 plant optimization	2025/02/20 15:43:00	2025/02/20 20:55:00
3	218	Precips and SO3 plant optimization	2025/02/20 20:55:00	2025/02/20 23:41:00
3	200	Precips and SO3 plant optimization	2025/02/20 23:41:00	2025/02/21 23:40:00
3	200	A&F-mills Optimization	2025/02/21 23:41:00	2025/02/22 02:28:00
3	268	A,E&F mills not available	2025/02/22 02:28:00	2025/02/23 01:59:00
3	18	High stack emissions	2025/02/22 15:29:00	2025/02/23 00:00:00
3	18	Spinning Reserve	2025/02/23 00:00:00	2025/02/23 05:24:00
3	200	Chemical control-silica removal	2025/02/23 02:00:00	2025/02/24 01:59:00
3	18	High stack emissions	2025/02/23 05:25:00	2025/02/23 09:40:00
3	18	High stack emissions	2025/02/23 13:15:00	2025/02/24 02:00:00
3	218	Chemistry control-silica removal	2025/02/24 02:00:00	2025/02/25 01:55:00
3	122	RH draught group tripped.	2025/02/24 15:05:00	2025/02/24 17:10:00
3	218	Pricip and SO3 optimization	2025/02/25 02:00:00	2025/02/26 02:00:00
3	118	Chemistry control, SO3 and mills optimization	2025/02/26 02:01:00	2025/02/27 02:01:00
3	138	Precips & SO3 Optimization	2025/02/27 02:01:00	2025/02/28 02:01:00
3	218	A;D&F mills not available	2025/02/28 02:01:00	2025/02/28 06:07:00
3	140	A&F mills not available	2025/02/28 06:07:00	2025/02/28 13:47:00
3	38	HP heater bank B faulty sempell valve 2 leaking	2025/02/28 13:48:00	2025/02/28 23:59:59
3	102	A&F mills not available	2025/02/28 13:48:00	2025/02/28 15:08:00
3	80	A&F mills not available	2025/02/28 15:08:00	2025/02/28 23:59:59
4	593	Boiler tube leak.	2025/02/01 00:00:00	2025/02/04 10:18:00
4	297	System Generated Ramp Event for Event id : 2022029	2025/02/04 10:18:00	2025/02/04 13:18:00
4	240	A-mill PF isolating damper faulty & D-mill pinnion	2025/02/04 13:18:00	2025/02/04 13:49:00
4	150	A-mill PF isolating damper faulty & D-mill pinnion gear	2025/02/04 13:49:00	2025/02/04 14:53:00
4	125	A-mill PF isolating damper faulty & D-mill pinnion gear	2025/02/04 14:53:00	2025/02/04 16:10:00
4	45	High furnace pressure.	2025/02/04 15:24:00	2025/02/04 16:05:00
4	123	AM: Super-heater safety v/v lifting.	2025/02/04 16:10:00	2025/02/04 16:22:00
4	115	AM: Super-heater safety v/v lifting.	2025/02/04 16:22:00	2025/02/05 14:06:00
4	138	AM: Super-heater safety v/v lifting.	2025/02/05 14:06:00	2025/02/06 05:27:00
4	107	Coal bunker levels low due to T9D coal conveyor motor faulty.	2025/02/05 18:24:00	2025/02/06 05:27:00
4	116	Super-heater safety v/v lifting.	2025/02/06 05:27:00	2025/02/06 13:18:00
4	150	AM: Super heater safety v/v pneumatic pipe faulty.	2025/02/06 13:18:00	2025/02/06 15:04:00
4	83	E mill long feeder faulty and ID fans not coping	2025/02/06 15:04:00	2025/02/06 15:30:00
4	48	EF: ID fans not coping due to ducting damage	2025/02/06 15:30:00	2025/02/06 15:46:00
4	53	EF: ID fans not coping due to ducting damage.	2025/02/06 15:46:00	2025/02/10 12:09:00
4	28	EF: Low O2's	2025/02/07 20:43:00	2025/02/07 20:55:00
4	35	EF: Low O2's	2025/02/07 20:55:00	2025/02/10 12:09:00
4	26	Spinning Reserve	2025/02/08 11:22:00	2025/02/08 18:16:00
4	27	Spinning Reserve	2025/02/08 21:07:00	2025/02/09 10:12:00
4	125	Spinning Reserve	2025/02/09 10:12:00	2025/02/09 16:45:00
4	30	Spinning Reserve	2025/02/09 16:45:00	2025/02/09 21:17:00
4	130	Spinning Reserve	2025/02/09 21:17:00	2025/02/10 00:03:00
4	83	Spinning Reserve	2025/02/10 00:03:00	2025/02/10 04:24:00
4	30	Spinning Reserve	2025/02/10 04:24:00	2025/02/10 07:26:00
4	122	Spinning Reserve	2025/02/10 07:26:00	2025/02/10 10:39:00
4	31	Spinning Reserve	2025/02/10 10:39:00	2025/02/10 12:09:00

4	68	AM: ID Fans not coping. Ducting flr.	2025/02/10 12:09:00	2025/02/17 10:25:00
4	60	Spinning Reserve	2025/02/10 22:03:00	2025/02/10 22:33:00
4	50	Spinning Reserve	2025/02/10 22:33:00	2025/02/11 09:11:00
4	145	Spinning Reserve	2025/02/11 09:11:00	2025/02/11 15:39:00
4	50	Spinning Reserve	2025/02/11 15:39:00	2025/02/11 17:00:00
4	50	Spinning Reserve	2025/02/11 19:37:00	2025/02/11 23:08:00
4	47	Spinning Reserve	2025/02/12 07:13:00	2025/02/12 10:55:00
4	154	Spinning Reserve	2025/02/12 10:55:00	2025/02/12 15:42:00
4	55	Spinning Reserve	2025/02/12 15:42:00	2025/02/12 17:09:00
4	48	ID fans not coping due to ducting damage.	2025/02/17 10:25:00	2025/02/18 06:15:00
4	72	EF:High stack emissions	2025/02/17 20:52:00	2025/02/18 06:15:00
4	50	ID Fans not coping due to ducting damage	2025/02/18 06:15:00	2025/02/18 09:19:00
4	38	ID Fans not coping due to ducting damaged	2025/02/18 09:19:00	2025/02/18 13:23:00
4	50	ID Fans not coping due to ducting damage	2025/02/18 13:23:00	2025/02/23 14:53:00
4	168	Coal constrains	2025/02/18 20:27:00	2025/02/19 00:04:00
4	178	Coal supply constraints	2025/02/19 00:04:00	2025/02/19 05:11:00
4	228	Coal supply constraints	2025/02/19 05:11:00	2025/02/19 10:04:00
4	168	Coal supply constraints	2025/02/19 10:04:00	2025/02/20 04:37:00
4	68	EF:High stack emissions	2025/02/20 21:07:00	2025/02/21 00:31:00
4	168	C mill feeders not available	2025/02/21 21:48:00	2025/02/22 10:15:00
4	188	C&F mills not available	2025/02/22 10:15:00	2025/02/22 11:12:00
4	193	C&F mills no available	2025/02/22 11:12:00	2025/02/23 00:00:00
4	25	C&F mills problems	2025/02/23 00:00:00	2025/02/23 04:59:00
4	168	Coal preservation	2025/02/23 00:00:00	2025/02/23 04:59:00
4	193	AM: C&F mill not available.	2025/02/23 05:00:00	2025/02/23 06:43:00
4	33	B&C mill short feeders defective	2025/02/23 06:43:00	2025/02/23 07:09:00
4	68	B&C mill short feeders defective	2025/02/23 07:09:00	2025/02/23 09:35:00
4	18	B mill short feeder defective	2025/02/23 09:35:00	2025/02/23 14:53:00
4	58	ID Fans not coping due to ducting damage	2025/02/23 14:53:00	2025/02/26 00:38:00
4	19	Spinning Reserve	2025/02/23 23:01:00	2025/02/23 23:21:00
4	12	Spinning Reserve	2025/02/23 23:21:00	2025/02/24 00:15:00
4	60	Spinning Reserve	2025/02/24 01:47:00	2025/02/24 02:13:00
4	157	Spinning Reserve	2025/02/24 02:13:00	2025/02/24 02:34:00
4	160	Spinning Reserve	2025/02/24 02:34:00	2025/02/24 04:41:00
4	60	Spinning Reserve	2025/02/24 04:41:00	2025/02/24 05:24:00
4	36	Spinning Reserve	2025/02/24 05:24:00	2025/02/24 05:41:00
4	20	Boiler pressure unstable.	2025/02/24 08:20:00	2025/02/24 09:36:00
4	60	Poor condenser vacuum	2025/02/25 15:14:00	2025/02/26 00:38:00
4	593	Boiler tube leak	2025/02/26 00:38:00	2025/02/28 23:59:59
5	593	Boiler tube leak.	2025/02/01 00:00:00	2025/02/02 20:44:00
5	573	System Generated Ramp Event for Event id : 2022134 (Recalculated)	2025/02/02 20:44:00	2025/02/02 20:53:00
5	593	Tripped on overspeed	2025/02/02 20:53:00	2025/02/03 00:05:00
5	297	System Generated Ramp Event for Event id : 2024058	2025/02/03 00:05:00	2025/02/03 01:35:00
5	211	HP and IP control valves defective	2025/02/03 03:05:00	2025/02/03 03:19:00
5	113	HP and IP control valves defective	2025/02/03 03:19:00	2025/02/03 10:41:00
5	103	Spinning Reserve	2025/02/03 06:52:00	2025/02/03 10:41:00
5	218	AM: HP and IP control valves defective.	2025/02/03 10:41:00	2025/02/03 14:45:00
5	118	AM:IP control valve 4 defective.	2025/02/03 14:45:00	2025/02/03 17:27:00
5	38	ID Fans not coping.	2025/02/03 17:27:00	2025/02/18 01:51:00
5	180	Clean wrapping.	2025/02/05 19:49:00	2025/02/05 22:30:00
5	177	High stack emissions	2025/02/05 22:30:00	2025/02/06 13:14:00
5	130	EF: High stack emissions	2025/02/06 13:14:00	2025/02/07 00:01:00
5	180	High stack emissions.	2025/02/07 00:01:00	2025/02/07 08:31:00
5	77	EF:High stack emissions	2025/02/07 08:31:00	2025/02/07 09:08:00
5	30	EF: High stack emissions	2025/02/07 13:00:00	2025/02/07 19:44:00
5	176	High stack emissions	2025/02/07 19:44:00	2025/02/08 04:39:00
5	80	Spinning Reserve	2025/02/08 09:36:00	2025/02/08 18:14:00
5	80	Spinning Reserve	2025/02/08 21:05:00	2025/02/09 07:32:00
5	179	Spinning Reserve	2025/02/09 07:32:00	2025/02/09 16:32:00
5	80	Spinning Reserve	2025/02/09 16:32:00	2025/02/09 21:04:00
5	180	Spinning Reserve	2025/02/09 21:04:00	2025/02/09 23:52:00
5	134	Spinning Reserve	2025/02/09 23:52:00	2025/02/10 04:12:00

5	82	Spinning Reserve	2025/02/10 04:12:00	2025/02/10 07:07:00
5	180	Spinning Reserve	2025/02/10 07:07:00	2025/02/10 15:30:00
5	80	Spinning Reserve	2025/02/10 15:30:00	2025/02/10 17:30:00
5	178	Spinning Reserve	2025/02/10 20:32:00	2025/02/11 04:13:00
5	100	Spinning Reserve	2025/02/11 04:13:00	2025/02/11 04:42:00
5	80	Spinning Reserve	2025/02/11 04:42:00	2025/02/11 05:44:00
5	180	EF:High stack emissions	2025/02/13 01:21:00	2025/02/13 04:48:00
5	40	EF: High stack emissions	2025/02/13 13:22:00	2025/02/13 18:23:00
5	180	Manual rapping	2025/02/13 21:56:00	2025/02/13 23:48:00
5	130	High stack emissions	2025/02/14 14:45:00	2025/02/15 04:46:00
5	130	EF: High stack emissions	2025/02/16 09:30:00	2025/02/16 11:11:00
5	180	E: High stack emissions	2025/02/16 11:11:00	2025/02/17 05:19:00
5	68	ID Fans not coping	2025/02/18 01:51:00	2025/02/19 03:45:00
5	150	Coal constrains	2025/02/18 20:25:00	2025/02/18 21:23:00
5	200	Coal supply constraints	2025/02/18 21:23:00	2025/02/19 03:45:00
5	593	Coal constrains.	2025/02/19 03:45:00	2025/02/20 12:25:00
5	593	Generator protection relay replacement	2025/02/20 12:25:00	2025/02/21 03:23:00
5	296	System Generated Ramp Event for Event id : 2028840 First Outage	2025/02/21 03:23:00	2025/02/21 05:53:00
5	298	System Generated Ramp Event for Event id : 2029370	2025/02/21 05:53:00	2025/02/21 06:23:00
5	208	High PA flow	2025/02/21 06:23:00	2025/02/21 06:43:00
5	118	High PA flow	2025/02/21 06:43:00	2025/02/21 07:29:00
5	60	ID fans not coping	2025/02/21 07:29:00	2025/02/21 08:35:00
5	118	ID fans not coping	2025/02/21 08:35:00	2025/02/21 09:10:00
5	100	ID fans not coping	2025/02/21 09:10:00	2025/02/21 10:20:00
5	111	ID fans not coping	2025/02/21 10:20:00	2025/02/21 11:25:00
5	70	ID fans not coping	2025/02/21 11:25:00	2025/02/21 20:44:00
5	48	ID fan not coping	2025/02/21 20:44:00	2025/02/21 23:01:00
5	38	ID fan not coping	2025/02/21 23:01:00	2025/02/26 13:34:00
5	180	EF: Manual rapping.	2025/02/22 20:57:00	2025/02/23 00:00:00
5	180	EF: High stack emissions	2025/02/23 00:00:00	2025/02/23 12:07:00
5	130	High stack emissions	2025/02/23 12:07:00	2025/02/24 05:25:00
5	50	Spinning Reserve	2025/02/24 01:45:00	2025/02/24 05:25:00
5	80	B mill feeders tripped	2025/02/25 05:26:00	2025/02/25 06:49:00
5	80	Poor condenser vacuum	2025/02/25 20:59:00	2025/02/26 03:20:00
5	593	CW pumps tripped.	2025/02/26 13:34:00	2025/02/26 22:22:00
5	296	System Generated Ramp Event for Event id : 2031212	2025/02/26 22:22:00	2025/02/27 00:52:00
5	48	ID fan not coping	2025/02/27 01:22:00	2025/02/27 01:38:00
5	38	HP heater bank B faulty	2025/02/27 01:38:00	2025/02/28 23:59:59
5	30	ID Fans not coping	2025/02/27 09:32:00	2025/02/28 23:59:59
5	28	High O2's	2025/02/28 12:42:00	2025/02/28 23:59:59
5	22	C-mill feeders blocked	2025/02/28 15:33:00	2025/02/28 23:59:59
5	52	Boiler pressure unstable	2025/02/28 23:15:00	2025/02/28 23:59:59
6	168	Spinning Reserve	2025/02/02 10:36:00	2025/02/02 18:35:00
6	28	ID Fans not coping	2025/02/02 19:04:00	2025/02/03 10:51:00
6	90	Spinning Reserve	2025/02/03 06:54:00	2025/02/03 10:51:00
6	31	EF: ID fans not coping	2025/02/03 10:51:00	2025/02/06 16:14:00
6	87	EF: B,E&F mill coal bunker low.	2025/02/06 15:05:00	2025/02/06 16:13:00
6	28	EF: ID fans not coping due to ducting damage.	2025/02/06 16:14:00	2025/02/07 11:08:00
6	18	AM: ID Fans not coping - ducting flty.	2025/02/07 11:08:00	2025/02/08 08:11:00
6	28	AM: ID Fans not coping - ducting flr.	2025/02/08 08:11:00	2025/02/10 17:35:00
6	90	Spinning Reserve	2025/02/08 09:39:00	2025/02/09 10:08:00
6	190	Spinning Reserve	2025/02/09 10:08:00	2025/02/09 16:39:00
6	90	Spinning Reserve	2025/02/09 16:39:00	2025/02/09 21:28:00
6	212	Spinning Reserve	2025/02/09 21:28:00	2025/02/10 00:00:00
6	141	Spinning Reserve	2025/02/10 00:00:00	2025/02/10 04:15:00
6	90	Spinning Reserve	2025/02/10 04:15:00	2025/02/10 07:12:00
6	185	Spinning Reserve	2025/02/10 07:12:00	2025/02/10 15:26:00
6	90	Spinning Reserve	2025/02/10 15:26:00	2025/02/10 17:35:00
6	30	AM: ID Fans not coping - ducting flr.	2025/02/10 17:35:00	2025/02/12 04:55:00
6	88	Spinning Reserve	2025/02/10 21:08:00	2025/02/11 05:45:00
6	38	Spinning Reserve	2025/02/11 05:45:00	2025/02/11 19:25:00
6	88	Spinning Reserve	2025/02/11 19:25:00	2025/02/12 04:55:00

6	28	AM: ID Fans not coping - ducting flr.	2025/02/12 04:55:00	2025/02/21 10:19:00
6	90	C Mill ball loading hopper repairs	2025/02/13 00:09:00	2025/02/13 04:40:00
6	90	C-mill program faulty	2025/02/13 04:40:00	2025/02/13 05:14:00
6	91	RHI pricip casing repairs	2025/02/15 02:10:00	2025/02/16 00:00:00
6	90	RHI precip casing inlet and outlet dampers defective	2025/02/16 00:00:00	2025/02/16 07:49:00
6	40	Feeder coal hang-ups	2025/02/17 23:14:00	2025/02/20 04:27:00
6	150	Coal constrains.	2025/02/18 21:00:00	2025/02/19 00:04:00
6	170	Coal supply constraints	2025/02/19 00:04:00	2025/02/19 02:00:00
6	293	Coal constrains.	2025/02/19 02:00:00	2025/02/19 07:08:00
6	309	Coal constrains	2025/02/19 07:08:00	2025/02/19 09:32:00
6	237	Coal constraints	2025/02/19 09:32:00	2025/02/19 10:26:00
6	150	Coal constraints	2025/02/19 10:26:00	2025/02/19 14:12:00
6	190	Coal constraints	2025/02/19 14:12:00	2025/02/19 15:15:00
6	156	Coal constraints	2025/02/19 15:15:00	2025/02/19 17:21:00
6	150	Coal constraints	2025/02/19 17:21:00	2025/02/20 03:35:00
6	100	High PA flows	2025/02/20 04:27:00	2025/02/20 17:01:00
6	90	High PA flows	2025/02/20 17:01:00	2025/02/21 10:19:00
6	593	Main steam stop valve glands repairs	2025/02/21 10:19:00	2025/02/26 10:18:00
6	593	Outage Slip	2025/02/26 10:18:00	2025/02/26 11:16:00
6	366	System Generated Ramp Event for Event id : 2029602 (Recalculated)	2025/02/26 11:16:00	2025/02/26 13:34:00
6	593	CW pumps tripped.	2025/02/26 13:34:00	2025/02/26 20:11:00
6	523	System Generated Ramp Event for Event id : 2031214 (Recalculated)	2025/02/26 20:11:00	2025/02/26 20:32:00
6	593	Poor vacuum	2025/02/26 20:32:00	2025/02/27 00:18:00
6	297	System Generated Ramp Event for Event id : 2031285	2025/02/27 00:18:00	2025/02/27 01:48:00
6	328	C; D; E and F mills no available.	2025/02/27 03:18:00	2025/02/27 04:48:00
6	233	C;D and F mills not available.	2025/02/27 04:48:00	2025/02/27 12:16:00
6	158	C&D Mills defective	2025/02/27 12:16:00	2025/02/27 13:19:00
6	34	High PA flows	2025/02/27 13:19:00	2025/02/28 13:44:00
6	36	main condensate system.	2025/02/27 17:08:00	2025/02/28 06:40:00
6	84	SSC standing	2025/02/28 06:40:00	2025/02/28 09:53:00
6	80	High Hopper levels.	2025/02/28 09:53:00	2025/02/28 16:21:00
6	38	HP heater bank A faulty	2025/02/28 13:44:00	2025/02/28 23:59:59
6	80	Coal constraints	2025/02/28 23:09:00	2025/02/28 23:59:59