



Mr. Mcebo Mkhathswa
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Date:
25 September 2024

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LRP01PLA000 _0417/20240905

Dear Mr. Mkhathswa

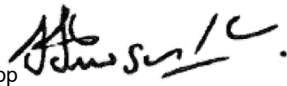
LETHABO POWER STATION EMISSION MONTHLY REPORT FOR AUGUST 2024

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

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

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

Yours sincerely

pp 

Karabo Rakgolela
GENERAL MANAGER

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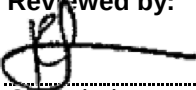
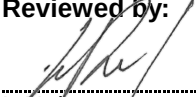
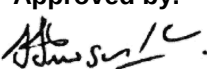
Eskom Holdings SOC Ltd Reg No 2002/015527/30

	Report	Lethabo Power Station
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Report name:	Lethabo Power Station August 2024 Emission Report	Reference number:	LRP01PLA000 _0417/20240905
		Document Type:	Report
		Area of Applicability:	Environment
		Report Date:	September-2024
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Signatures:

Compiled by:  B Moletsane System Engineer	Verified by :  W de Klerk Senior Advisor	Reviewed by:  Nathi Mazibuko BPE Manager
Date: 23/09/2024	Date: 2024 09 23	Date: 2024/09/25

Reviewed by:  C Govinden PE Manager	Reviewed by:  L Nel C&I Manager	Reviewed by: pp  M Hariram Environmental Manager
Date: 2024/09/25	Date: 2024-09-25	Date:
Reviewed by:  Thuli Njapha Engineering Manager	Approved by:  H Sewsunker Technical Manager	2024/09/25
Date: 25/09/2024	Date:	

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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 Aug 2024
	Coal	Tons	2 000 000	1 198 942
	Fuel Oil	Tons	1 700	1176.200
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Indicative Production Rate Aug-2024
	Energy	GWh	2 834.640	1 613.344
	Ash	Tons	770 000	453 559.853
	RE Ash	kg/MWh	Not Specified	281.130

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)	0.680
Ash Content	%	37.37 (Standard)	37.830

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 Aug-2024	Technology Type	SO ₃ Utilization Aug-2024
Unit 1	Electrostatic Precipitator (ESP)	99.84%	SO ₃	99.5%
Unit 2	Electrostatic Precipitator (ESP)	99.63%	SO ₃	91.7%
Unit 3	Electrostatic Precipitator (ESP)	99.75%	SO ₃	100.0%
Unit 4	Electrostatic Precipitator (ESP)	99.75%	SO ₃	98.0%
Unit 5	Electrostatic Precipitator (ESP)	99.77%	SO ₃	99.6%
Unit 6	Electrostatic Precipitator (ESP)	99.91%	SO ₃	96.7%

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	95.7	99.9	100.0
Unit 2	91.4	99.8	100.0
Unit 3	99.4	100.0	100.0
Unit 4	99.6	100.0	100.0
Unit 5	99.0	100.0	100.0
Unit 6	99.6	100.0	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 August 2024

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO _x (tons)
Unit 1	169.2	3 055	1 673
Unit 2	195.3	1 994	789
Unit 3	201.5	3 280	1 388
Unit 4	157.8	3 527	1 693
Unit 5	134.7	2578	1029
Unit 6	41.1	2 301	973
SUM	899.6	16 735	7 545

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average PM (mg/Nm³)
Unit 1	26	5	0	0	5	93.7
Unit 2	8	10	0	2	12	188.6
Unit 3	18	12	0	1	13	116.4
Unit 4	25	6	0	0	6	77.3
Unit 5	15	6	0	0	6	97.3
Unit 6	18	2	0	0	2	46.5
SUM	110	41	0	3	44	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average SO ₂ (mg/Nm³)
Unit 1	31	0	0	0	0	1 610.6
Unit 2	21	0	0	0	0	1 836.4
Unit 3	31	0	0	0	0	1 844.1
Unit 4	31	0	0	0	0	1 747.1
Unit 5	23	0	0	0	0	1 715.7
Unit 6	22	0	0	0	0	1 986.9
SUM	159	0	0	0	0	

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

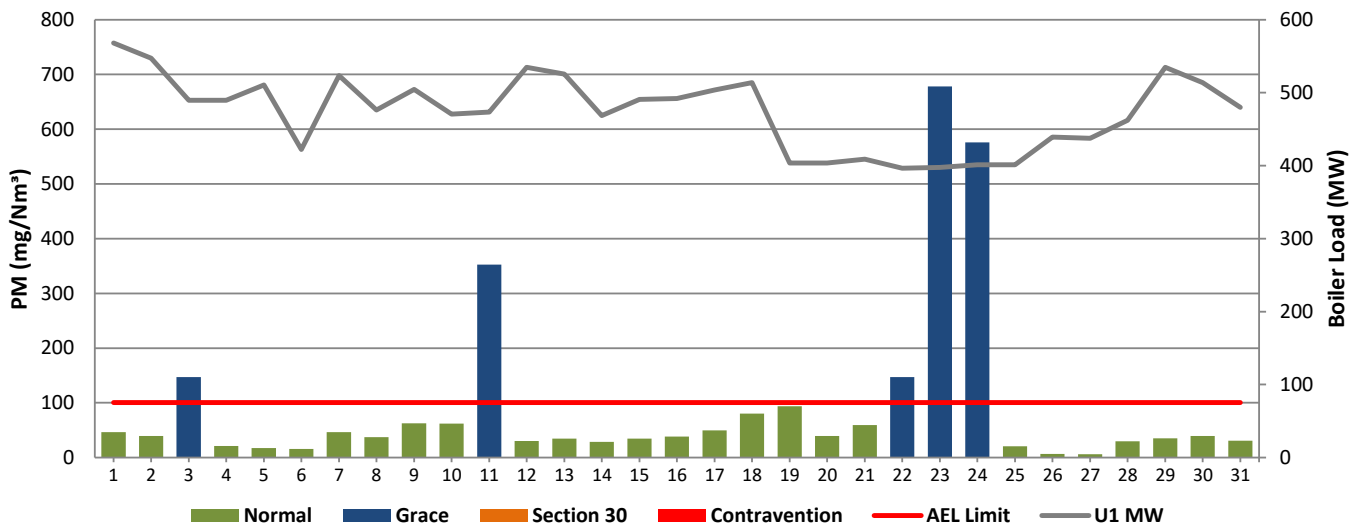
Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average NOx (mg/Nm³)
Unit 1	31	0	0	0	0	878.6
Unit 2	21	0	0	0	0	724.7
Unit 3	31	0	0	0	0	781.0
Unit 4	31	0	0	0	0	837.0
Unit 5	23	0	0	0	0	679.2
Unit 6	22	0	0	0	0	835.6
SUM	159	0	0	0	0	

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

Table 6.5: Legend Description

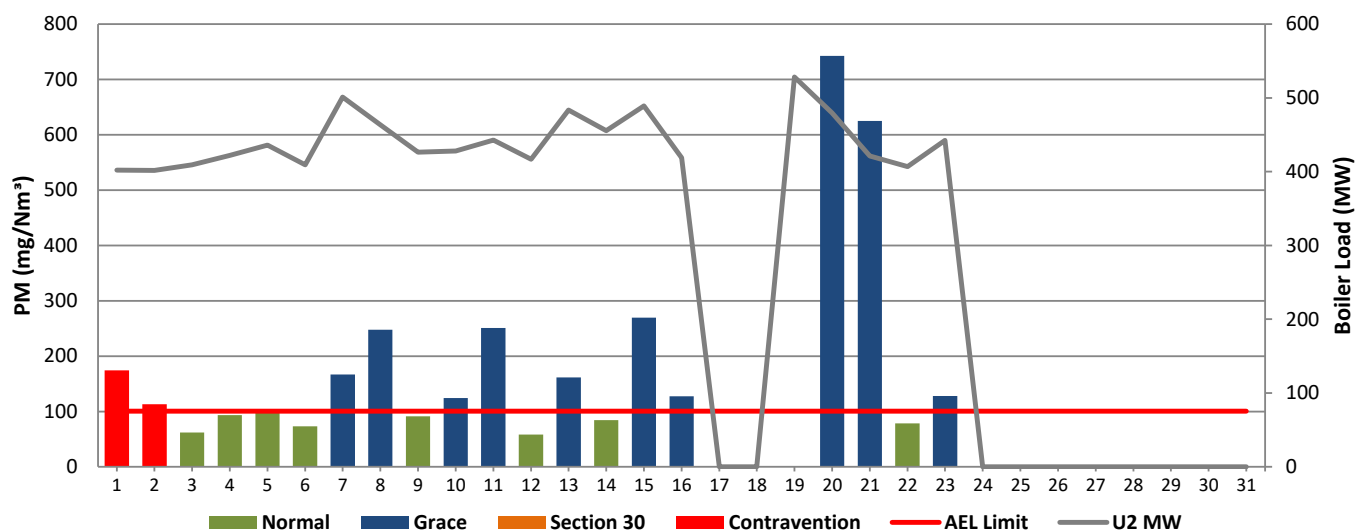
Condition	Colour	Description
Normal	GREEN	Emissions below Emission Limit Value (ELV)
Grace	BLUE	Emissions above the ELV during grace period
Section 30	ORANGE	Emissions above ELV during a NEMA S30 incident
Contra-vention	RED	Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Lethabo Unit 1 PM Emissions - August 2024



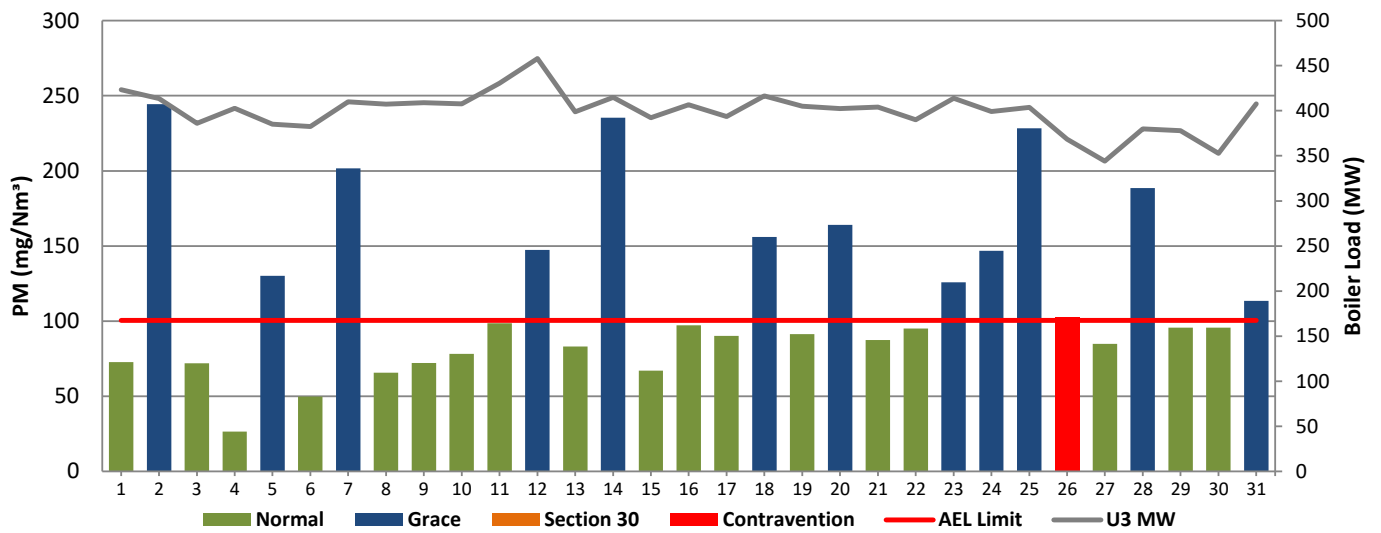
Reasons:	
Date	Description:
03-Aug	LHO ESP Casing Outage
11-Aug	RHI ESP Casing outage
22-Aug	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.
23-Aug	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.
24-Aug	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.

Figure 2: Lethabo Unit 2 PM Emissions - August 2024



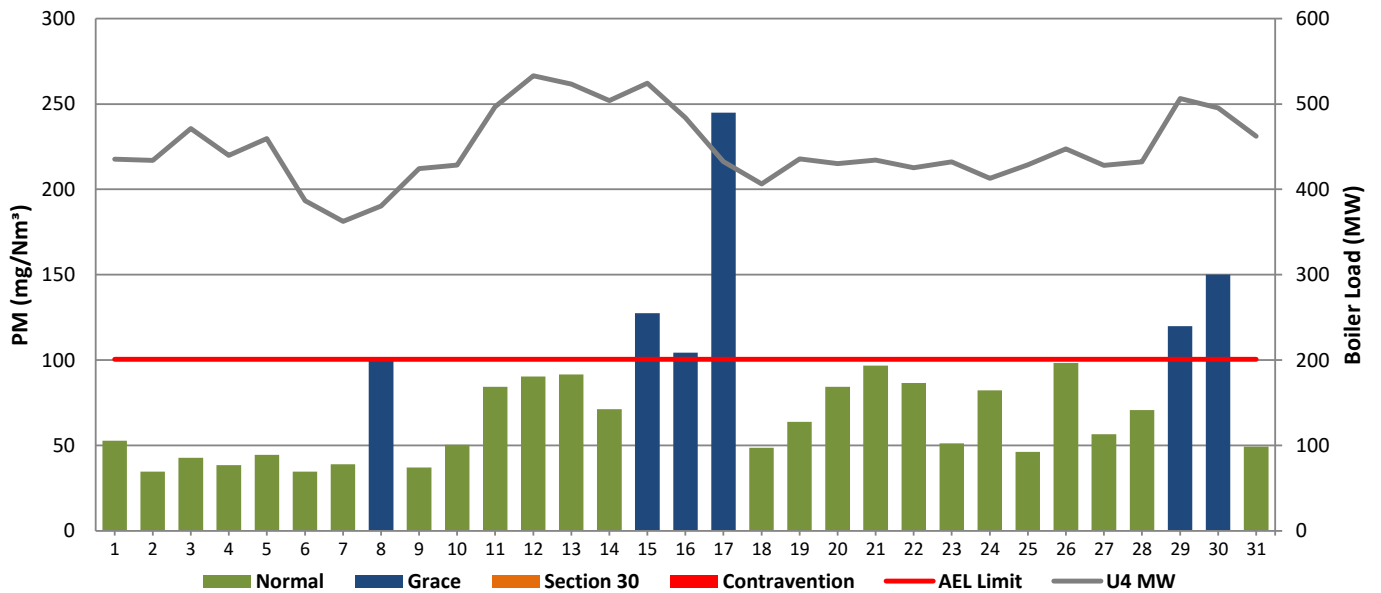
Reasons:	
Date	Description:
01-Aug	SO3 plant unavailable
02-Aug	The unit synchronised on 2024/07/29 @ 07:28, therefore the emissions needed to be below by 2024/08/01 @ 07:28 and remain below the limit unit 2024/08/02 @ 23:59 SO3 plant challenges
07-Aug	Limitations on the SO3 plant.
08-Aug	Limitations on the SO3 plant. Manual rapping.
10-Aug	Poor ESP casing performance. SO3 plant poor performance
11-Aug	Manual rapping done. Poor ESP casing performance. SO3 plant poor performance
13-Aug	Manual rapping done. SO3 plant poor performance (dosing 30 kg/h).
15-Aug	Manual rapping done. SO3 plant dosing limited to 30 kg/h.
16-Aug	Unit 2 shut down for cold reserve.
20-Aug	The unit synchronised on 2024/08/19 @ 02:07, therefore the emissions need to be below the limit 2024/08/22 @
21-Aug	The unit synchronised on 2024/08/19 @ 02:07, therefore the emissions need to be below the limit 2024/08/22 @
23-Aug	Unit shutdown for BTL
29-Aug	U2 off for SO3 plant repairs after BTL repairs complete.

Figure 3: Lethabo Unit 3 PM Emissions - August 2024



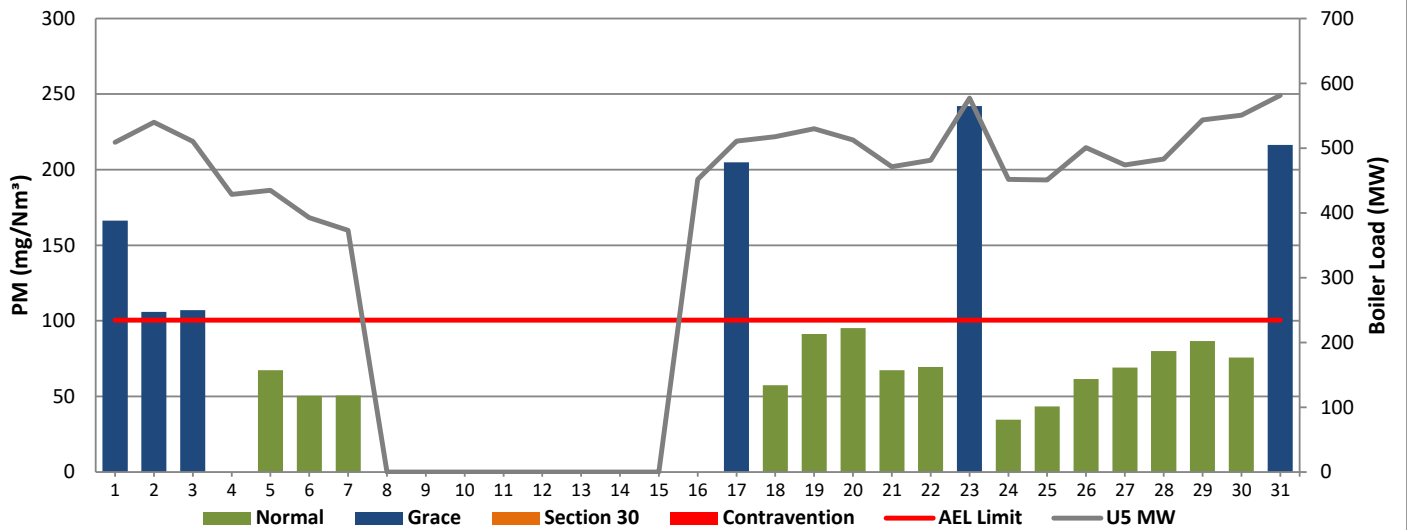
Reasons:	
Date	Description:
02-Aug	RHI Casing outage
07-Aug	Manual rapping
12-Aug	Manual rapping done. Poor ESP Casing field performance.
18-Aug	Manual rapping done. Poor ESP casing performance.
20-Aug	Manual rapping done. Poor ESP casing performance.
23-Aug	ESP poor performance
24-Aug	Poor ESP casing performance
25-Aug	ESP RHI/RHO casings switching off (Electrical cable fault) Manual rapping carried out.
26-Aug	Clean rapping carried out. High hopper levels. DHP issues.
28-Aug	Poor ESP casing performance. Manual rapping done. High hopper levels.
31-Aug	High hopper levels. LHI Casing on PTW

Figure 4: Lethabo Unit 4 PM Emissions - August 2024



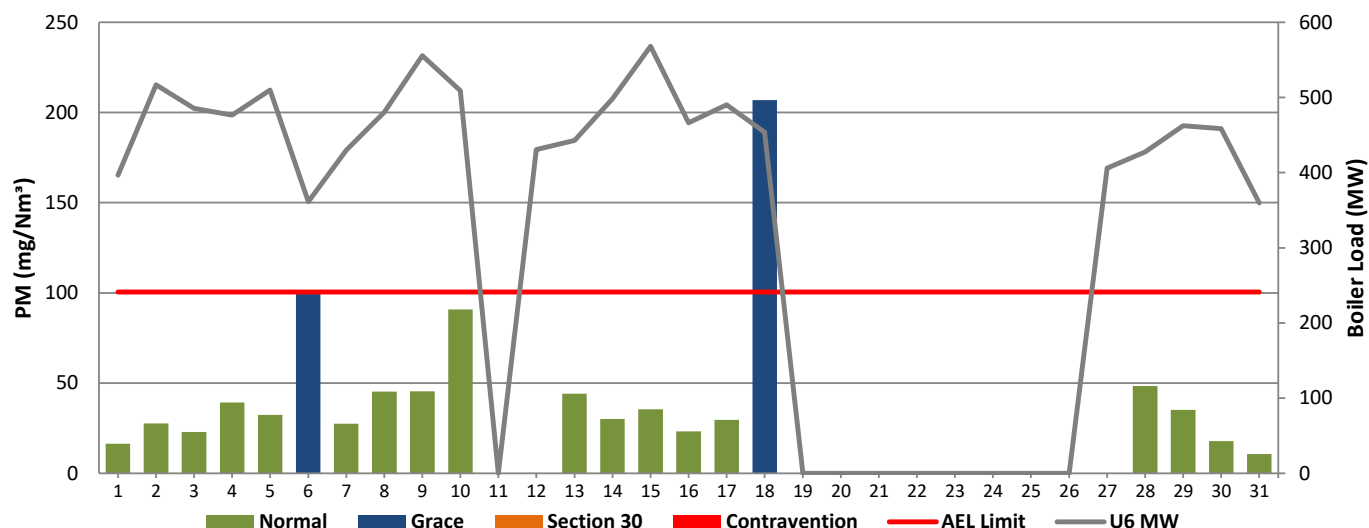
Reasons:	
Date	Description:
08-Aug	Manual rapping
15-Aug	Manual rapping done.
16-Aug	High hopper levels.
17-Aug	RHI casing isolated due to high hopper levels.
29-Aug	Poor ESP casing performance.
30-Aug	Manual rapping.

Figure 5: Lethabo Unit 5 PM Emissions - August 2024



Reasons:	
Date	Description:
01-Aug	Manual rapping. Biler load controller on manual - Load fluctuating.
02-Aug	Boiler Load controler on manual -Load fluctuating Boiler increased affecting emissions. ESP Fields faulty (poor performance)
03-Aug	LHI casing outage Boiler load on manual -Load fluctuating Boiler increased affecting emissions.
04-Aug	The unit synchronised on 2024/08/04 @ 23:30, therefore the emissions need to be below the limit by 2024/08/07 @ 23:30 and remain below the limit unit 2024/08/08 @ 23:59
08-Aug	Unit off for boiler tube leak.
09-Aug	Unit off for boiler tube leak.
10-Aug	Unit off for boiler tube leak.
11-Aug	Unit off for boiler tube leak.
12-Aug	Unit off for boiler tube leak.
13-Aug	Unit off for boiler tube leak.
14-Aug	Unit off for boiler tube leak.
15-Aug	Unit off for boiler tube leak.
16-Aug	Unit 5 start up conditions (09h45) 2024/08/16
17-Aug	No clean rapping done. Unit 5 start up conditions (09h45) 2024/08/16
23-Aug	Routine manual rapping done
31-Aug	Manual rapping done.

Figure 6: Lethabo Unit 6 PM Emissions - August 2024



Reasons:	
Date	Description:
06-Aug	Poor ESP Casing performance. High hopper levels. SO3 plant off due to load restrictions.
11-Aug	Boiler tripped.
12-Aug	The unit synchronised on 2024/08/12 @ 22:07 therefore the emissions need to be below the limit 2024/08/15 @ 22:07 and remain below the limit until 2024/08/16. High hopper levels.
18-Aug	U6 Boiler Shutdown for SH safety valve leak
19-Aug	U6 Boiler Shutdown for SH safety valve leak
20-Aug	U6 Boiler Shutdown for SH safety valve leak
21-Aug	U6 Boiler Shutdown for SH safety valve leak
22-Aug	U6 Boiler Shutdown for SH safety valve leak
23-Aug	U6 Boiler Shutdown for SH safety valve leak
24-Aug	U6 Boiler Shutdown for SH safety valve leak
25-Aug	U6 Boiler Shutdown for SH safety valve leak
26-Aug	U6 Boiler Shutdown for SH safety valve leak
27-Aug	Unit 6 synchronised on load on 2024/08/27 @ 03:57, therefore the emissions need to be below the limit on 2024/08/30 @ 03:57 and remain below the limit until 2024/08/31 @ 23:59

Figure 7: Lethabo Unit 1 SO₂ Emissions - August 2024

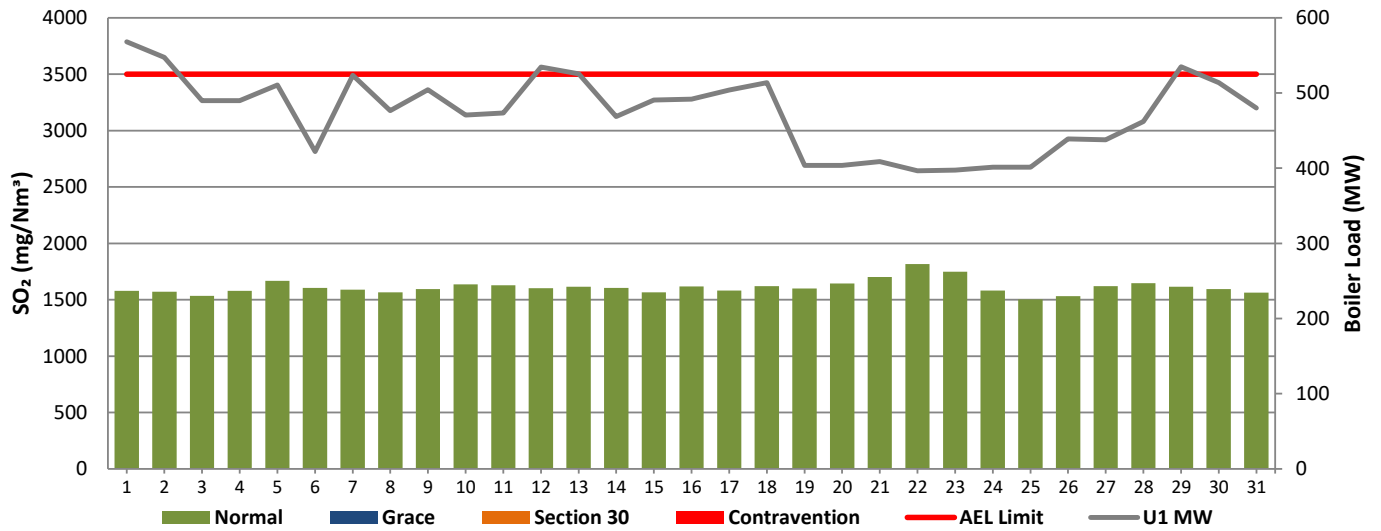


Figure 8: Lethabo Unit 2 SO₂ Emissions - August 2024

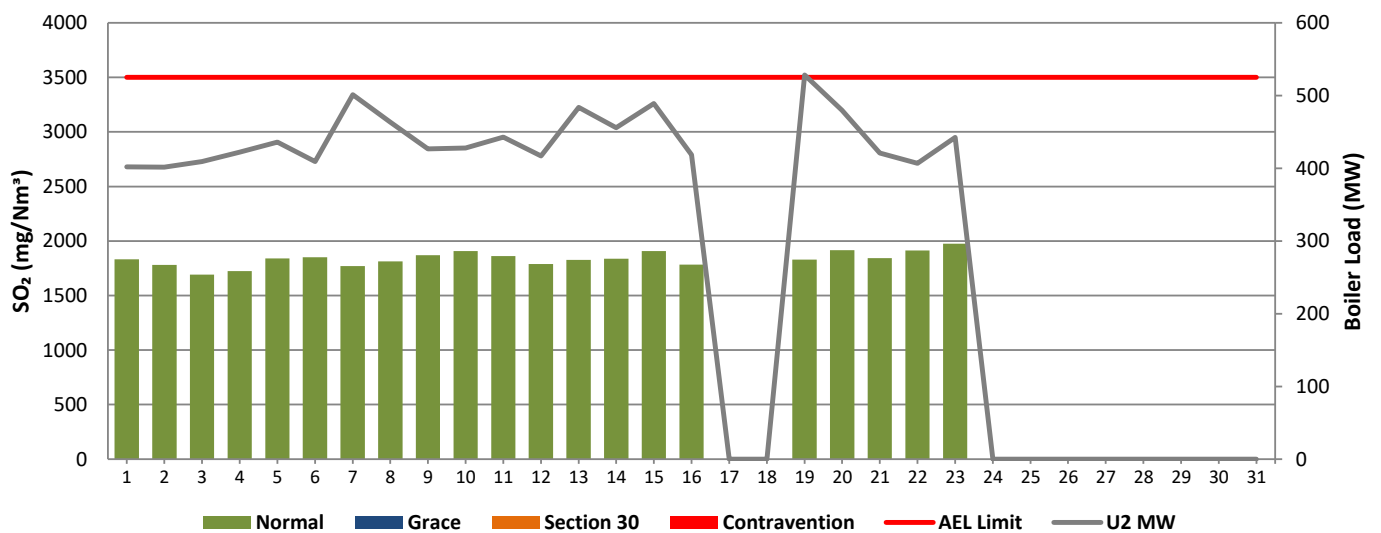


Figure 9: Lethabo Unit 3 SO₂ Emissions - August 2024

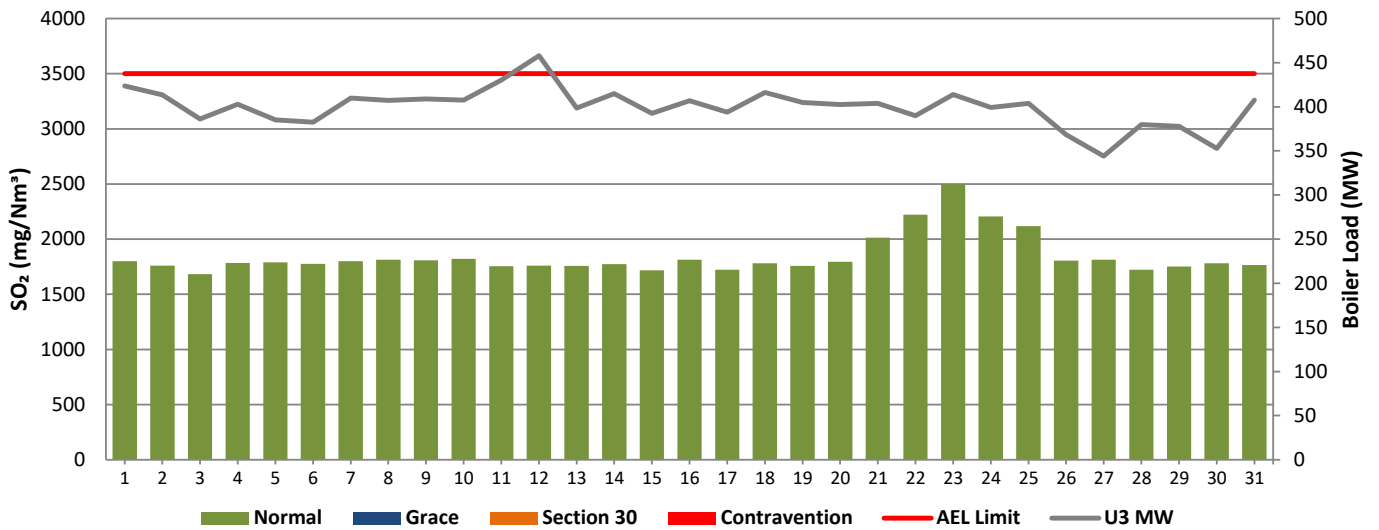


Figure 10: Lethabo Unit 4 SO₂ Emissions - August 2024

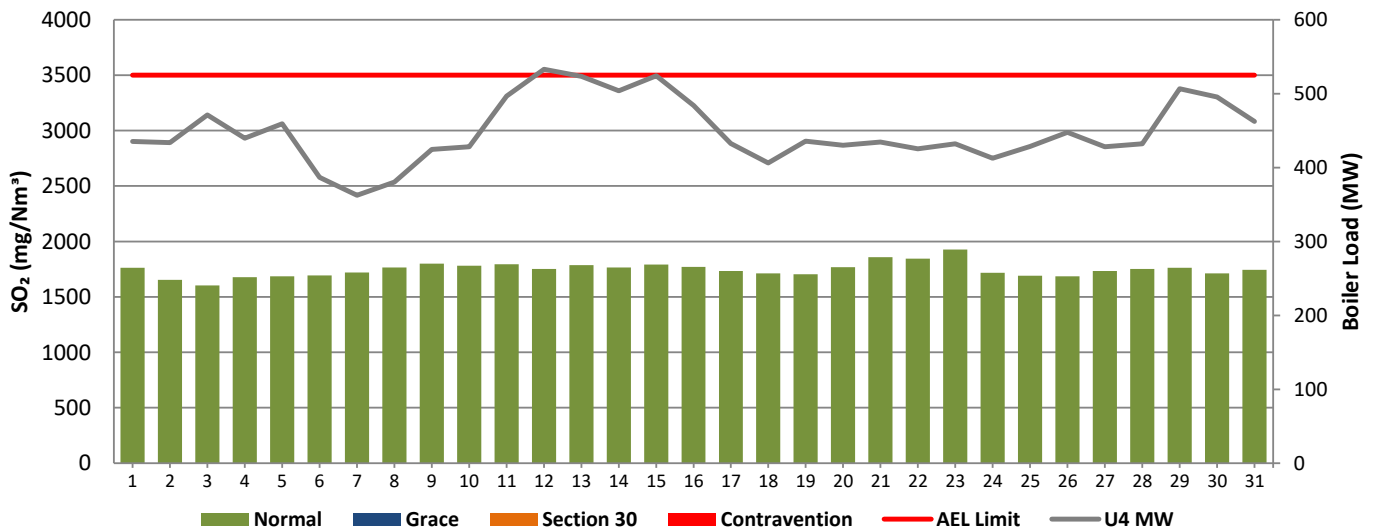


Figure 11: Lethabo Unit 5 SO₂ Emissions - August 2024

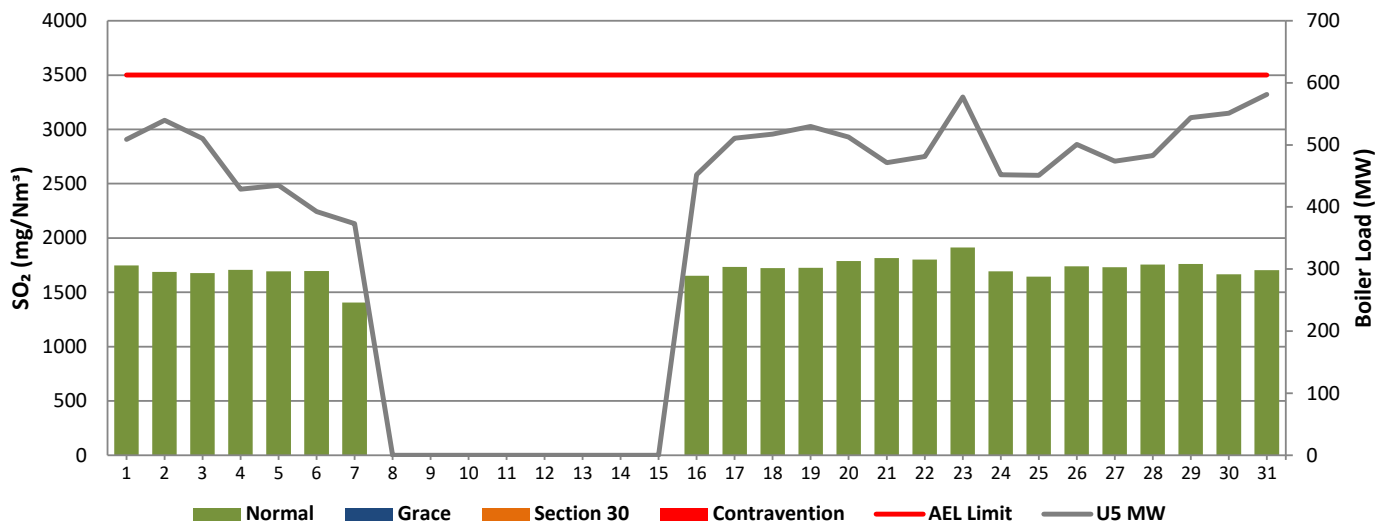


Figure 12: Lethabo Unit 6 SO₂ Emissions - August 2024

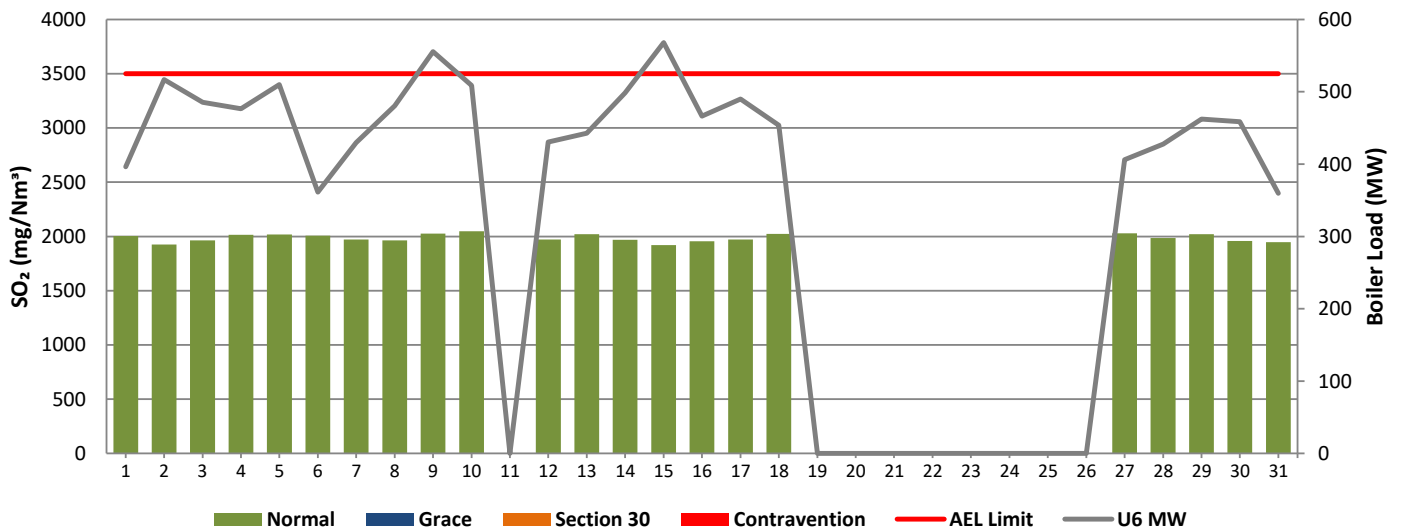


Figure 13: Lethabo Unit 1 NOx Emissions - August 2024

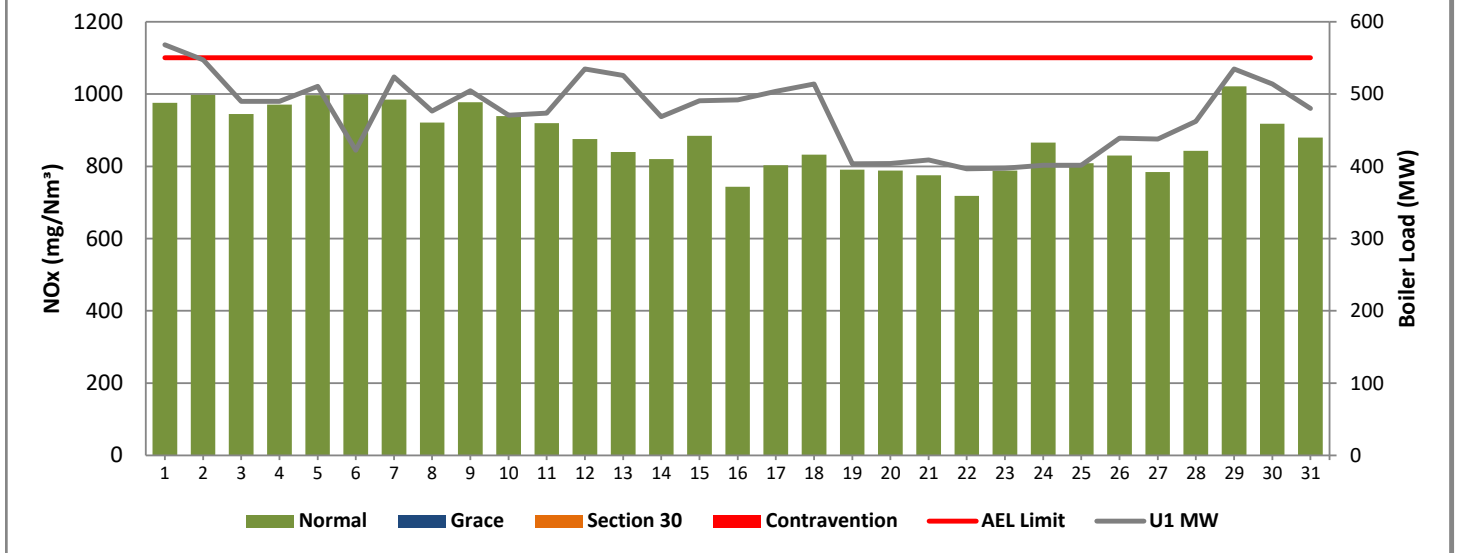


Figure 14: Lethabo Unit 2 NOx Emissions - August 2024

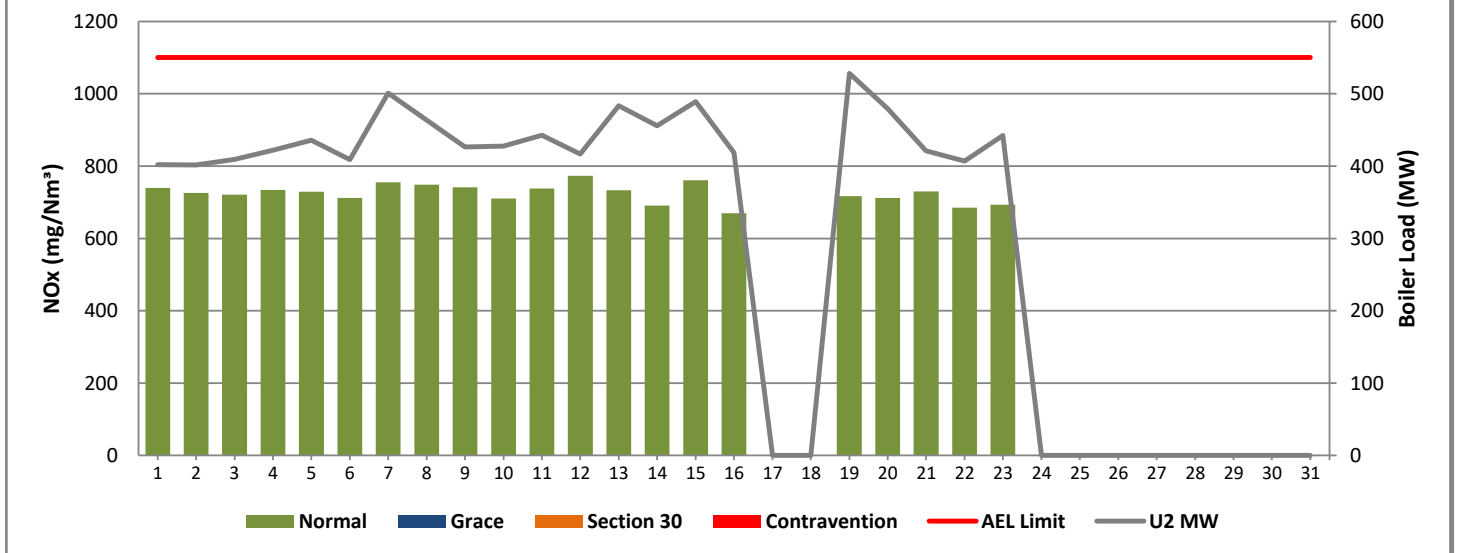


Figure 15: Lethabo Unit 3 NOx Emissions - August 2024

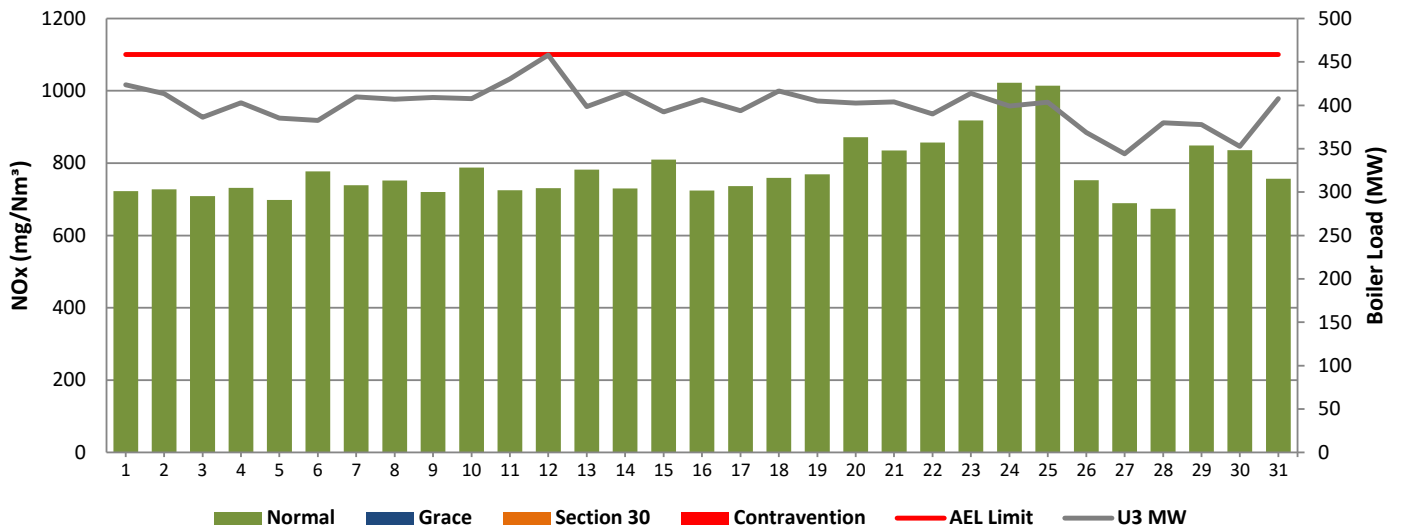


Figure 16: Lethabo Unit 4 NOx Emissions - August 2024

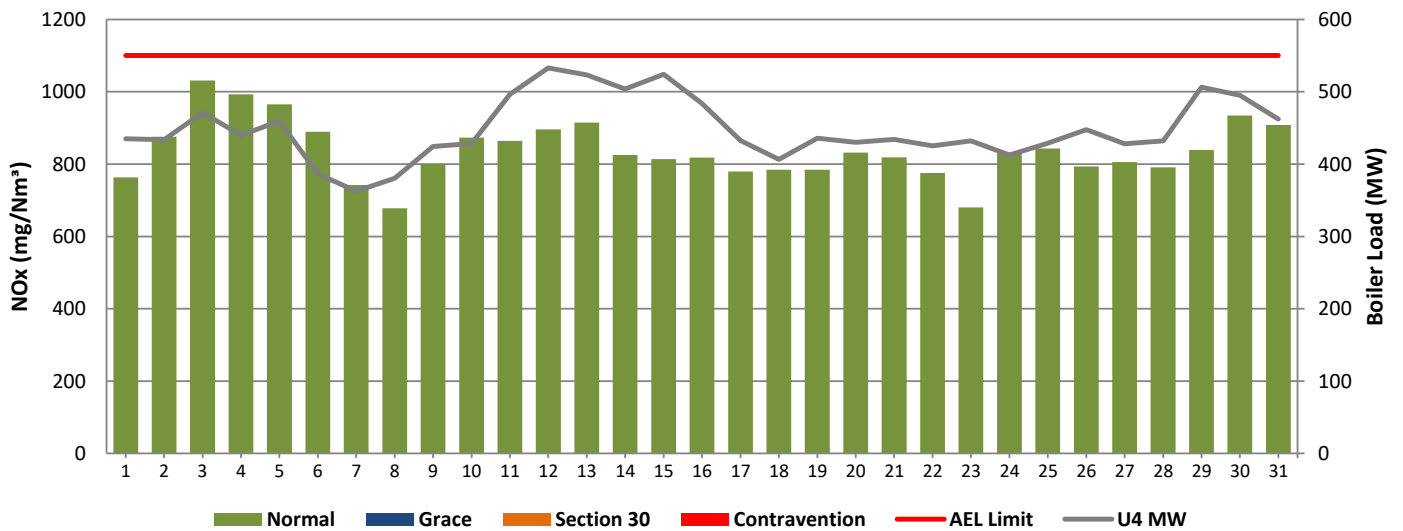


Figure 17: Lethabo Unit 5 NOx Emissions - August 2024

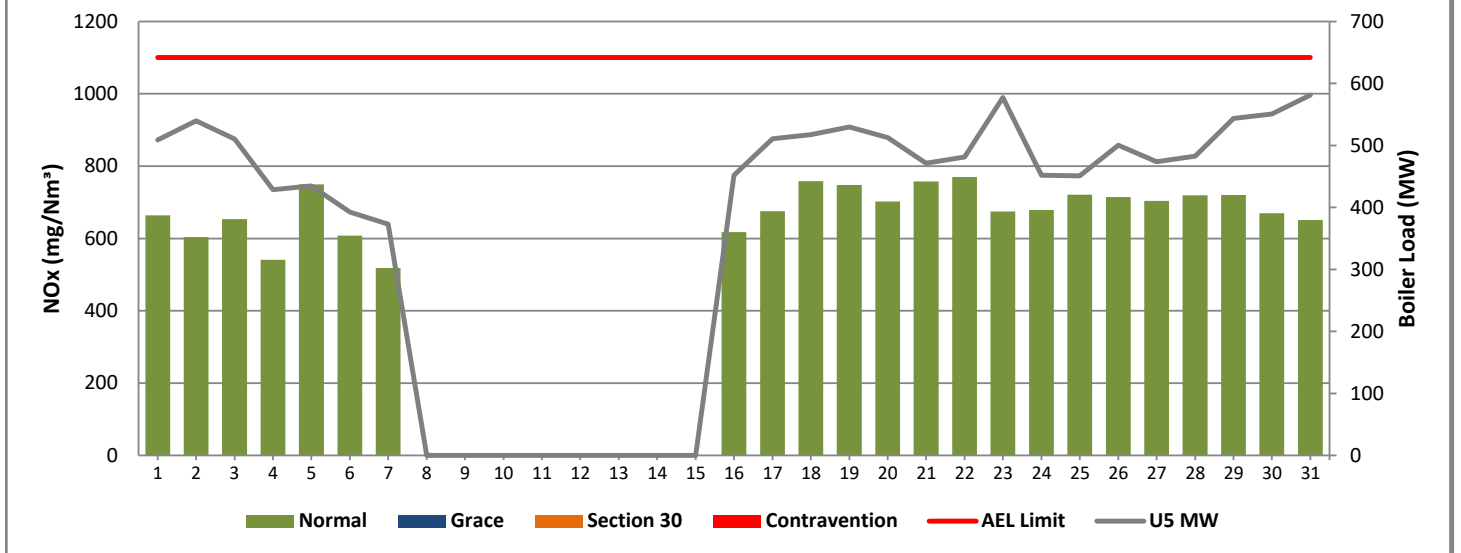
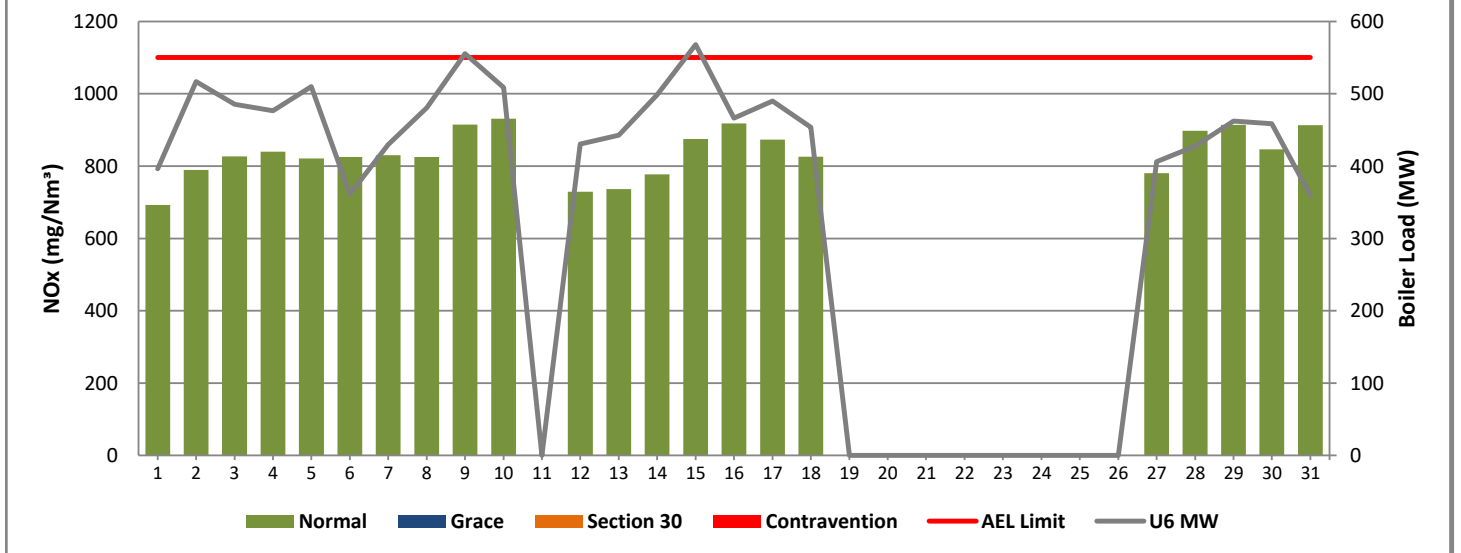


Figure 18: Lethabo Unit 6 NOx Emissions - August 2024



7 SHUT DOWN AND LIGHT UP INFORMATION

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

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	Boiler tube leak.		SO3 plant repair.					
Breaker Open (BO)	12:51 pm	2024/08/23	7:00 pm	2024/08/28				
Draught Group (DG) Shut Down (SD)	1:52 am	2024/08/24	DG did not trip or SD	DG did not trip or SD				
BO to DG SD (duration)	00:13:01	DD:HH:MM	n/a	DD:HH:MM				
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM				
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM				

Unit No.3	Main Turbine condenser vacuum.		HP turbine gear shaft rear bearing temperature high.					
Breaker Open (BO)	1:35 pm	2024/08/03	2:39 pm	2024/08/05				
Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD	DG did not trip or SD				
BO to DG SD (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM				
Fires in time	5:30 pm	2024/08/03						
Synch. to Grid (or BC)	8:52 pm	2024/08/03						
Fires in to BC (duration)	00:03:22	DD:HH:MM		DD:HH:MM				
Emissions below limit from BC (end date)	3:00 am	2024/08/05						
Emissions below limit from BC (duration)	01:06:08	DD:HH:MM		DD:HH:MM				

Unit No.4								
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.5	<i>Boiler tube leak.</i>							
Breaker Open (BO)	8:36 am	2024/08/07						
Draught Group (DG) Shut Down (SD)	8:20 pm	2024/08/07						
BO to DG SD (duration)	00:11:44	DD:HH:MM						
Fires in time	8:20 am	2024/08/16						
Synch. to Grid (or BC)	9:45 am	2024/08/16						
Fires in to BC (duration)	00:01:25	DD:HH:MM						
Emissions below limit from BC (end date)	12:00 am	2024/08/18						
Emissions below limit from BC (duration)	01:14:15	DD:HH:MM						

Unit No.6	<i>Unit tripped due to EFP A&B tripped.</i>		<i>Safety valve pipe repairs.</i>		<i>Main turbine Physical over speed test.</i>			
Breaker Open (BO)	5:38 pm	2024/08/12	7:26 am	2024/08/18	11:48 pm	2024/08/31		
Draught Group (DG) Shut Down (SD)	DG did not trip or SD	DG did not trip or SD	10:12 pm	2024/08/18	DG did not trip or SD	DG did not trip or SD		
BO to DG SD (duration)	n/a	DD:HH:MM	00:14:46	DD:HH:MM	n/a	DD:HH:MM		DD:HH:MM
Fires in time	9:20 pm	2024/08/12	11:40 pm	2024/08/26				
Synch. to Grid (or BC)	10:07 pm	2024/08/12	3:58 am	2024/08/27				
Fires in to BC (duration)	00:00:47	DD:HH:MM	00:04:18	DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)	12:00 am	2024/08/14	12:00 am	2024/08/28				
Emissions below limit from BC (duration)	01:01:53	DD:HH:MM	00:20:02	DD:HH:MM		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 August 2024 in mg/Nm³

8. MAINTENANCE

Unit 1				
Beginning of Maintenance (Time):	2024/08/03 00:39	2024/08/11 00:00		
Reason for Maintenance	LHO Casing repairs	RHI precip casing repairs.		
End (Time):	2024/08/03 20:10	2024/08/11 22:35		
Duration	19:31:00	22:35:00		

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

Unit 3				
Beginning of	2024/08/31 00:33:00			
Reason for Maintenance	LHI precip casing repairs			
End (Time):	2024/08/31 23:57:00			
Duration	23:24:00			

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

Unit 5				
Beginning of	2024/08/04 17:56			
Reason for Maintenance	AM: LHI precip casing			
End (Time):	2024/08/04 22:44			
Duration	4:48:00			

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

9. GENERAL

Unit 1 Monitor Reliability

03/08/2024: PM monitor Reliability low due to monitor reading max out.

23/08/2024 & 24/08/2024: PM monitor reliability low due to monitor reading max out.

26/08/2024: PM monitor reliability low due to calibration slightly out.

Unit 2 Monitor Reliability

01/08/2024 legal contravention carried on from the previous month due to SO3 plant unavailable.

02/08/2024 2024 legal contravention carried on from the previous month due to SO3 light up conditions.

20/08/2024: PM Monitor Reliability low due to monitor reading max out.

21/08/2024: PM monitor reliability low due to monitor reading maxing out.

Unit 2:

On the 01/08/2024 - 02/08/2024, unit 2 registered a non-compliance as the unit continued to exceed for greater than 72 hours due to SO3 plant issues; requiring the repairs of the SO3 plant.

Unit 3:

On the 26/08/2024, unit 3 registered a non-compliance as the unit continued to exceed for greater than 72 hours due to ESP casing issues; requiring the repairs as well as Dust Handling Plant issues.

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.
3	26-Aug-24	27-Aug-24	Clean rapping carried out. High hopper levels. DHP issues.	Backlogging and maintenance.					

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
Sep-23	0.26	0.28	0.46	0.41	0.33	0.51	0.37
Oct-23	0.26	0.48	0.63	0.43	0.39	0.42	0.43
Nov-23	0.83	1.31	0.94	0.67	0.59	0.75	0.87
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

ADDENDUM TO MONTHLY EMISSIONS REPORT

12. DAILY EMISSIONS FIGURES

Final Dust Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
01-Aug	47	174	73	53	166	16	100
02-Aug	39	113	244	35	106	28	100
03-Aug	147	62	72	43	107	23	100
04-Aug	21	93	26	39	OFF	39	100
05-Aug	17	100	130	45	67	32	100
06-Aug	16	73	50	35	50	101	100
07-Aug	46	167	202	39	51	27	100
08-Aug	37	247	66	101	OFF	45	100
09-Aug	63	91	72	37	OFF	45	100
10-Aug	62	124	78	50	OFF	91	100
11-Aug	353	251	99	84	OFF	OFF	100
12-Aug	30	58	147	90	OFF	OFF	100
13-Aug	35	161	83	92	OFF	44	100
14-Aug	29	84	235	71	OFF	30	100
15-Aug	34	269	67	127	OFF	35	100
16-Aug	38	127	97	104	OFF	23	100
17-Aug	50	OFF	90	245	205	30	100
18-Aug	80	OFF	156	49	57	207	100
19-Aug	94	OFF	91	64	91	OFF	100
20-Aug	39	743	164	84	95	OFF	100
21-Aug	59	625	87	97	67	OFF	100
22-Aug	147	78	95	87	70	OFF	100
23-Aug	678	128	126	51	242	OFF	100
24-Aug	576	OFF	147	82	35	OFF	100
25-Aug	21	OFF	228	46	43	OFF	100
26-Aug	7	OFF	103	98	61	OFF	100
27-Aug	6	OFF	85	57	69	OFF	100
28-Aug	30	OFF	189	71	80	48	100
29-Aug	35	OFF	96	120	87	35	100
30-Aug	40	OFF	96	150	76	18	100
31-Aug	31	OFF	113	49	216	11	100

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final SOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
01-Aug	1579	1833	1800	1762	1747	2005	3500
02-Aug	1570	1780	1760	1654	1688	1925	3500
03-Aug	1533	1691	1683	1603	1676	1964	3500
04-Aug	1578	1724	1784	1679	1708	2015	3500
05-Aug	1668	1839	1791	1686	1693	2018	3500
06-Aug	1606	1852	1777	1695	1695	2007	3500
07-Aug	1588	1770	1801	1720	1407	1972	3500
08-Aug	1566	1814	1813	1766	OFF	1963	3500
09-Aug	1594	1870	1807	1799	OFF	2025	3500
10-Aug	1638	1907	1822	1781	OFF	2048	3500
11-Aug	1629	1861	1754	1795	OFF	OFF	3500
12-Aug	1603	1789	1760	1751	OFF	1971	3500
13-Aug	1615	1827	1757	1787	OFF	2020	3500
14-Aug	1606	1837	1773	1765	OFF	1969	3500
15-Aug	1566	1907	1717	1791	OFF	1919	3500
16-Aug	1618	1785	1814	1770	1651	1956	3500
17-Aug	1582	OFF	1723	1735	1735	1972	3500
18-Aug	1621	OFF	1781	1713	1723	2022	3500
19-Aug	1600	1829	1758	1706	1726	OFF	3500
20-Aug	1644	1915	1796	1769	1789	OFF	3500
21-Aug	1702	1844	2013	1859	1815	OFF	3500
22-Aug	1817	1913	2221	1845	1801	OFF	3500
23-Aug	1750	1975	2499	1927	1913	OFF	3500
24-Aug	1581	OFF	2207	1717	1693	OFF	3500
25-Aug	1502	OFF	2118	1692	1646	OFF	3500
26-Aug	1532	OFF	1806	1687	1740	OFF	3500
27-Aug	1621	OFF	1812	1733	1730	2029	3500
28-Aug	1647	OFF	1722	1752	1755	1986	3500
29-Aug	1616	OFF	1751	1763	1762	2020	3500
30-Aug	1594	OFF	1780	1713	1666	1958	3500
31-Aug	1563	OFF	1766	1745	1703	1947	3500

ADDENDUM TO MONTHLY EMISSIONS REPORT

Final NOx Concentration (mg/Nm³)

Date	U1	U2	U3	U4	U5	U6	Limit
01-Aug	976	740	722	763	664	693	1100
02-Aug	998	726	728	876	604	789	1100
03-Aug	945	721	709	1031	653	827	1100
04-Aug	971	734	731	993	541	840	1100
05-Aug	997	729	698	965	750	821	1100
06-Aug	999	712	777	890	608	825	1100
07-Aug	984	755	739	742	519	830	1100
08-Aug	921	749	752	677	OFF	825	1100
09-Aug	977	741	720	801	OFF	915	1100
10-Aug	939	711	788	874	OFF	931	1100
11-Aug	920	739	725	864	OFF	OFF	1100
12-Aug	876	773	731	896	OFF	729	1100
13-Aug	839	733	782	915	OFF	736	1100
14-Aug	820	691	730	825	OFF	777	1100
15-Aug	884	761	810	814	OFF	875	1100
16-Aug	744	670	725	818	618	918	1100
17-Aug	803	OFF	737	780	676	873	1100
18-Aug	832	OFF	759	784	758	826	1100
19-Aug	790	717	769	785	748	OFF	1100
20-Aug	789	712	872	831	702	OFF	1100
21-Aug	775	730	835	819	758	OFF	1100
22-Aug	718	685	857	775	770	OFF	1100
23-Aug	788	693	918	681	675	OFF	1100
24-Aug	866	OFF	1023	832	679	OFF	1100
25-Aug	809	OFF	1014	844	721	OFF	1100
26-Aug	830	OFF	752	794	714	OFF	1100
27-Aug	784	OFF	689	806	704	780	1100
28-Aug	843	OFF	674	791	720	898	1100
29-Aug	1021	OFF	849	839	720	914	1100
30-Aug	918	OFF	836	935	670	847	1100
31-Aug	879	OFF	757	909	651	913	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
Sep-23	99.17%	1.0	100.00%	0.0	98.51%	1.8	100.00%	0.0	98.34%	2.0	99.17%	1.0
Oct-23	99.98%	0.0	96.81%	4.0	98.31%	2.1	100.00%	0.0	99.34%	0.8	99.30%	0.9
Nov-23	97.53%	2.96	97.57%	2.92	99.17%	1.00	100.00%	0.00	100.00%	0.00	99.71%	0.35
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%

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
Sep-23	100.00%	0.0	98.19%	0.5	98.75%	0.4	99.72%	0.1	99.58%	0.1	95.83%	1.3
Oct-23	99.73%	0.1	100.00%	0.0	96.91%	1.0	100.00%	0.0	100.00%	0.0	97.27%	0.8
Nov-23	95.14%	1.5	94.17%	1.8	83.89%	4.8	86.14%	4.2	89.17%	3.3	94.62%	1.6
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

ADDENDUM TO MONTHLY EMISSIONS REPORT

Particulate Emission Monitors

Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Sep-23	99.44%	98.61%	98.89%	99.03%	97.99%	97.98%
Oct-23	100.00%	96.51%	99.33%	99.73%	98.66%	99.69%
Nov-23	92.92%	86.39%	94.86%	98.60%	97.64%	96.16%
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%

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
Sep-23	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.85%	99.85%
Oct-23	99.46%	99.46%	99.33%	99.46%	99.19%	99.19%	99.46%	99.46%	99.33%	99.46%	99.40%	99.40%
Nov-23	100.00%	100.00%	99.72%	99.86%	99.86%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.73%
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%

Oxygen Monitor Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Sep-23	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Oct-23	99.33%	99.06%	99.19%	99.33%	100.00%	99.40%
Nov-23	99.86%	99.72%	99.86%	100.00%	100.00%	99.58%
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%

ADDENDUM TO MONTHLY EMISSIONS REPORT

14. EFFICIENCY

ESP Efficiency (%)						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Sep-23	99.895%	99.867%	99.793%	99.825%	99.860%	99.766%
Oct-23	99.908%	99.804%	99.749%	99.830%	99.849%	99.829%
Nov-23	99.715%	99.499%	99.652%	99.764%	99.775%	99.705%
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%

15. REMARKS

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
1	218	Spinning Reserve	2024/08/01 03:19:00	2024/08/01 04:19:00
1	118	Spinning Reserve	2024/08/02 11:43:00	2024/08/02 14:21:00
1	118	AM: C mill lub oil pump pressure low.	2024/08/02 14:21:00	2024/08/02 21:21:00
1	118	LHO Casing repairs	2024/08/03 00:39:00	2024/08/03 20:10:00
1	220	Spinning Reserve	2024/08/04 01:16:00	2024/08/04 08:12:00
1	120	Spinning Reserve	2024/08/04 08:12:00	2024/08/04 10:13:00
1	215	Bucket belt replacement	2024/08/05 23:31:00	2024/08/06 04:30:00
1	213	Coal constraints	2024/08/06 04:30:00	2024/08/06 06:20:00
1	230	Coal constraints	2024/08/06 06:20:00	2024/08/06 16:53:00
1	218	Coal constraints	2024/08/06 20:05:00	2024/08/07 05:49:00
1	117	Spinning Reserve	2024/08/07 13:31:00	2024/08/07 17:12:00
1	120	Coal constrains	2024/08/07 22:07:00	2024/08/07 23:14:00
1	230	Coal constrains	2024/08/07 23:14:00	2024/08/08 00:00:00
1	218	1A bucket belt replacement	2024/08/08 00:00:00	2024/08/08 05:23:00
1	12	Coal constraints	2024/08/08 00:00:00	2024/08/08 05:23:00
1	214	1A Bucket belt replacement	2024/08/08 21:18:00	2024/08/09 04:58:00
1	218	1A bucket belt replacement	2024/08/09 21:06:00	2024/08/10 04:19:00
1	118	RHI precip casing repairs.	2024/08/11 00:00:00	2024/08/11 22:35:00
1	218	Spinning Reserve	2024/08/11 23:09:00	2024/08/12 00:00:00
1	218	1A bucket belt replacement	2024/08/12 00:00:00	2024/08/12 04:57:00
1	11	Spinning Reserve	2024/08/12 04:57:00	2024/08/12 05:03:00
1	118	A mill tripped	2024/08/12 12:14:00	2024/08/12 16:45:00
1	11	B mill long feeder tripped	2024/08/12 16:47:00	2024/08/13 09:18:00
1	177	Spinning Reserve	2024/08/13 00:39:00	2024/08/13 05:16:00
1	219	Spinning Reserve	2024/08/14 10:32:00	2024/08/14 16:10:00
1	214	AM: 1A bucket belt replcement.	2024/08/14 21:49:00	2024/08/15 05:00:00
1	140	AM: E mill air damper fails to open	2024/08/15 05:00:00	2024/08/15 05:37:00
1	200	Spinning Reserve	2024/08/15 11:39:00	2024/08/15 15:16:00
1	119	B-mill DE jacking and lube oil pumps defective	2024/08/16 16:16:00	2024/08/16 19:57:00
1	58	AM: B&D mills running with one feeder each.	2024/08/16 19:57:00	2024/08/17 16:02:00
1	59	Spinning Reserve	2024/08/16 23:57:00	2024/08/17 16:02:00
1	222	Spinning Reserve	2024/08/18 12:35:00	2024/08/18 18:20:00
1	215	Dust plant high hopper levels	2024/08/19 00:27:00	2024/08/20 19:50:00
1	194	Dust plant high hopper levels	2024/08/20 19:50:00	2024/08/21 00:00:00
1	194	coal preservation	2024/08/21 00:00:00	2024/08/21 05:00:00
1	194	Dust plant high hopper levels	2024/08/21 05:00:00	2024/08/21 21:00:00
1	217	Coal preservation	2024/08/21 21:00:00	2024/08/22 04:59:00
1	217	Dust plant high hopper levels	2024/08/22 04:59:00	2024/08/22 12:22:00
1	15	Spinning Reserve	2024/08/22 08:45:00	2024/08/22 12:22:00
1	219	Dust plant high hopper levels	2024/08/22 12:22:00	2024/08/23 00:00:00
1	220	Coal preservation due to silo 2 unavaulable.	2024/08/23 00:00:00	2024/08/23 05:00:00
1	220	Dust plant high hopper levels	2024/08/23 05:00:00	2024/08/23 21:00:00
1	218	AM: Coal Preservation. Silo 2 o/c.	2024/08/23 21:00:00	2024/08/24 00:00:00
1	217	AM: Coal conveyor T9A G/box replacement.	2024/08/24 00:00:00	2024/08/25 00:00:00
1	216	AM: High hopper levels on dust plant.	2024/08/25 00:00:00	2024/08/26 05:15:00
1	158	AM: A+B mills o/c & high PA flow.	2024/08/26 05:15:00	2024/08/26 16:50:00
1	58	Spinning Reserve	2024/08/26 05:15:00	2024/08/26 09:12:00
1	58	Spinning Reserve	2024/08/26 09:12:00	2024/08/26 16:50:00
1	216	B Mill long feeder, C mill short feedre & E mill shoth feeder not available	2024/08/26 16:50:00	2024/08/27 04:35:00
1	117	B Mill long feeder, C mill short feedre & E mill shoth feeder not available	2024/08/27 04:35:00	2024/08/27 07:49:00

1	218	B Mill long feeder, C mill short feedre & E mill shoth feeder not available	2024/08/27 07:49:00	2024/08/27 11:11:00
1	200	B Mill long feeder, C mill short feedre & E mill shoth feeder not available	2024/08/27 16:34:00	2024/08/27 17:33:00
1	110	B Mill long feeder, C mill short feeder & E mill shoth feeder not available	2024/08/27 17:33:00	2024/08/27 18:15:00
1	88	C mill short feeder & E mill shoth feeder not available	2024/08/27 18:15:00	2024/08/27 19:10:00
1	48	E mill shoth feeder not available	2024/08/27 19:10:00	2024/08/27 19:22:00
1	218	AM:2A MCW p/p sump cleaning.	2024/08/28 00:00:00	2024/08/28 02:47:00
1	22	B Mill long feeder on PTW for clutch replacement	2024/08/28 18:40:00	2024/08/30 17:46:00
1	119	C Mill ball loading hopper that leak PF	2024/08/28 18:40:00	2024/08/29 00:00:00
1	118	AM: Mill C ball loading hopper repairs.	2024/08/29 00:00:00	2024/08/29 04:47:00
1	101	C mill flip flop module faulty	2024/08/29 04:47:00	2024/08/29 06:17:00
1	46	EF; Load line test.	2024/08/29 21:01:00	2024/08/30 04:01:00
1	46	Spinning Reserve	2024/08/30 04:01:00	2024/08/30 05:49:00
1	46	D Mill off due to long feeder clutch faulty & D Mill short feeder block chute	2024/08/30 05:49:00	2024/08/30 07:49:00
1	96	D Mill off due to long feeder clutch faulty & D Mill short FDR block chute	2024/08/30 07:49:00	2024/08/30 11:16:00
1	116	D Mill off due to long feeder clutch faulty & D Mill short FDR block chute	2024/08/30 11:16:00	2024/08/30 17:44:00
1	69	AM: B & D mill long feeders faulty	2024/08/30 17:46:00	2024/08/30 21:15:00
1	10	B long feeder on PTW.	2024/08/30 21:15:00	2024/08/30 22:12:00
2	50	High PA flow.	2024/08/01 00:00:00	2024/08/05 07:21:00
2	118	D Mill feed boxes &E mills on ptw for girth gear turning	2024/08/01 00:00:00	2024/08/03 21:47:00
2	42	Spinning Reserve	2024/08/01 00:00:00	2024/08/01 05:20:00
2	49	S03 plant faulty	2024/08/01 05:19:00	2024/08/03 05:55:00
2	47	High stack emissions	2024/08/03 05:55:00	2024/08/03 21:47:00
2	116	High stack emissions	2024/08/03 21:47:00	2024/08/04 15:12:00
2	50	Spinning Reserve	2024/08/04 00:21:00	2024/08/04 15:12:00
2	68	EF: High stack emissions	2024/08/04 15:12:00	2024/08/04 19:30:00
2	165	EF: High stack emissions	2024/08/04 19:30:00	2024/08/05 05:55:00
2	118	D Mill feed boxes &E mills on ptw for girth gear turning	2024/08/05 05:55:00	2024/08/05 06:33:00
2	49	Spinning Reserve	2024/08/05 05:55:00	2024/08/05 06:12:00
2	65	High stack emissions	2024/08/05 06:33:00	2024/08/05 07:21:00
2	212	EF: High stack emissions	2024/08/05 14:31:00	2024/08/06 02:38:00
2	212	Coal constraints	2024/08/06 02:38:00	2024/08/06 16:42:00
2	168	Coal constraints.	2024/08/06 16:42:00	2024/08/06 19:47:00
2	214	Coal constraints	2024/08/06 19:47:00	2024/08/07 07:01:00
2	111	Spinning Reserve	2024/08/07 10:22:00	2024/08/07 12:29:00
2	217	Spinning Reserve	2024/08/07 12:29:00	2024/08/07 15:23:00
2	118	Spinning Reserve	2024/08/07 15:23:00	2024/08/07 16:39:00
2	217	Coal constraints	2024/08/07 22:21:00	2024/08/08 05:07:00
2	125	EF:High stack emissions	2024/08/08 05:07:00	2024/08/08 17:49:00
2	40	Spinning Reserve	2024/08/08 08:50:00	2024/08/08 10:18:00
2	90	Spinning Reserve	2024/08/08 10:18:00	2024/08/08 16:12:00
2	35	High PA flow	2024/08/08 17:49:00	2024/08/09 05:22:00
2	181	EF:High stack emissions	2024/08/08 22:29:00	2024/08/09 05:22:00
2	28	High PA flow	2024/08/09 05:22:00	2024/08/10 18:03:00
2	84	Spinning Reserve	2024/08/09 06:24:00	2024/08/09 09:54:00
2	189	AM: High stack emissions.	2024/08/09 09:54:00	2024/08/10 02:30:00
2	189	Spinning Reserve	2024/08/10 02:30:00	2024/08/10 07:06:00
2	138	Spinning Reserve	2024/08/10 07:06:00	2024/08/10 09:39:00
2	188	Spinning Reserve	2024/08/10 09:39:00	2024/08/10 17:27:00
2	88	Spinning Reserve	2024/08/10 17:27:00	2024/08/10 18:03:00
2	68	PA flow transmitter over -reading	2024/08/10 18:03:00	2024/08/13 05:09:00
2	174	Spinning Reserve	2024/08/10 21:00:00	2024/08/11 03:57:00
2	75	Spinning Reserve	2024/08/11 03:57:00	2024/08/11 09:15:00
2	178	Spinning Reserve	2024/08/11 09:15:00	2024/08/11 17:06:00
2	123	Spinning Reserve	2024/08/11 17:06:00	2024/08/11 17:38:00
2	74	Spinning Reserve	2024/08/11 17:38:00	2024/08/11 17:54:00
2	24	Spinning Reserve	2024/08/11 17:54:00	2024/08/11 20:31:00
2	175	High stack emissions.	2024/08/11 20:31:00	2024/08/12 16:55:00
2	125	High stack emissions	2024/08/12 16:55:00	2024/08/13 05:09:00
2	216	Spinning Reserve	2024/08/13 09:14:00	2024/08/13 10:05:00
2	214	EF:High stack emissions	2024/08/13 10:05:00	2024/08/13 16:02:00
2	217	Spinning Reserve	2024/08/14 10:29:00	2024/08/14 14:35:00
2	64	EF:High stack emissions	2024/08/14 16:57:00	2024/08/14 19:02:00
2	216	EF: High stack emissions	2024/08/14 19:02:00	2024/08/15 04:43:00
2	212	EF: High stack emissions	2024/08/15 20:45:00	2024/08/16 16:37:00
2	116	High stack emissions	2024/08/16 16:37:00	2024/08/16 22:15:00
2	99	Spinning Reserve	2024/08/16 20:43:00	2024/08/16 22:15:00

2	0	Cold Reserve (Spray water valve NW84S11leaking)	2024/08/16 22:15:00	2024/08/19 02:07:00
2	297	System Generated Ramp Event for Event id : 1967213	2024/08/19 02:07:00	2024/08/19 05:07:00
2	115	Spinning Reserve	2024/08/19 05:07:00	2024/08/19 06:15:00
2	32	Spinning Reserve	2024/08/19 06:15:00	2024/08/19 07:09:00
2	109	Spinning Reserve	2024/08/19 07:09:00	2024/08/19 16:35:00
2	108	Spinning Reserve	2024/08/20 00:15:00	2024/08/20 04:17:00
2	217	Spinning Reserve	2024/08/20 08:05:00	2024/08/20 14:44:00
2	125	Spinning Reserve	2024/08/20 14:44:00	2024/08/20 17:51:00
2	215	Spinning Reserve	2024/08/20 20:52:00	2024/08/21 00:00:00
2	217	coal preservation	2024/08/21 00:00:00	2024/08/21 05:00:00
2	216	Dust plant high hopper levels	2024/08/21 05:00:00	2024/08/21 12:12:00
2	217	Spinning Reserve	2024/08/21 12:12:00	2024/08/21 18:10:00
2	218	Coal preservation	2024/08/21 20:42:00	2024/08/22 05:00:00
2	216	High stack emissions.	2024/08/22 05:00:00	2024/08/22 17:27:00
2	168	EF: High stack emissions	2024/08/22 17:27:00	2024/08/22 20:11:00
2	218	EF: High stack emissions	2024/08/22 20:11:00	2024/08/23 00:00:00
2	218	Coal presarvation due to silo 2 unavailable	2024/08/23 00:00:00	2024/08/23 04:39:00
2	132	PA flow transmitter over -reading	2024/08/23 04:39:00	2024/08/23 04:50:00
2	95	PA flow transmitter over -reading	2024/08/23 04:50:00	2024/08/23 05:02:00
2	70	PA flow transmitter over -reading	2024/08/23 05:02:00	2024/08/23 12:51:00
2	142	Spinning Reserve	2024/08/23 09:39:00	2024/08/23 12:51:00
2	593	Boiler tube leak	2024/08/23 12:51:00	2024/08/28 19:00:00
2	593	SO3 plant repair	2024/08/28 19:00:00	2024/08/31 23:59:59
3	100	AM: ID Fans not coping	2024/08/01 00:00:00	2024/08/03 00:00:00
3	114	Coal constraints	2024/08/01 00:00:00	2024/08/01 04:36:00
3	14	poor main condenser vacuum	2024/08/01 04:36:00	2024/08/02 06:25:00
3	54	High stack emissions.	2024/08/01 06:39:00	2024/08/01 11:07:00
3	98	High stack emissions.	2024/08/01 11:07:00	2024/08/02 00:21:00
3	26	Spinning Reserve	2024/08/01 21:41:00	2024/08/02 00:21:00
3	123	Spinning Reserve	2024/08/02 00:21:00	2024/08/02 06:25:00
3	18	poor main condenser vacuum	2024/08/02 06:25:00	2024/08/03 00:00:00
3	99	AM: T11C coal conveyor snapped.	2024/08/02 14:19:00	2024/08/02 16:44:00
3	158	AM: T11C coal conveyor snapped- B&C mill coal bunker level low.	2024/08/02 16:44:00	2024/08/03 00:00:00
3	218	T11 C Splice repairs	2024/08/03 00:00:00	2024/08/03 06:51:00
3	62	ID fans not coping	2024/08/03 00:00:00	2024/08/03 09:12:00
3	153	AM: B mill coal bunker level low	2024/08/03 06:51:00	2024/08/03 07:33:00
3	116	AM: B mill coal bunker level low	2024/08/03 07:33:00	2024/08/03 09:12:00
3	97	EF: ID fans not coping	2024/08/03 09:12:00	2024/08/03 13:35:00
3	593	Main Turbine condenser vacuum	2024/08/03 13:35:00	2024/08/03 20:52:00
3	297	System Generated Ramp Event for Event id : 1962169	2024/08/03 20:52:00	2024/08/03 22:22:00
3	175	Spinning Reserve	2024/08/03 22:22:00	2024/08/03 22:37:00
3	184	Spinning Reserve	2024/08/03 22:37:00	2024/08/04 01:17:00
3	218	Spinning Reserve	2024/08/04 01:17:00	2024/08/04 08:43:00
3	216	AM: F mill PF leak repairs and D mill on 4000hr maintenance	2024/08/04 08:43:00	2024/08/05 14:39:00
3	593	HP turbine gear shaft rear bearing temperature high.	2024/08/05 14:39:00	2024/08/05 16:24:00
3	297	System Generated Ramp Event for Event id : 1963094	2024/08/05 16:24:00	2024/08/05 17:54:00
3	285	AM: F mill PF leak repairs and D mill on 4000hr maintenance	2024/08/05 17:54:00	2024/08/05 18:27:00
3	172	AM: F mill PF leak repairs and D mill on 4000hr maintenance	2024/08/05 18:27:00	2024/08/06 04:55:00
3	46	Coal preservation due to silo 4&5 unavailability	2024/08/05 23:14:00	2024/08/06 04:55:00
3	218	Coal constraints	2024/08/06 04:55:00	2024/08/06 06:26:00
3	248	Coal constraints	2024/08/06 06:26:00	2024/08/06 19:48:00
3	258	Coal constraints	2024/08/06 19:48:00	2024/08/07 06:08:00
3	170	Coal constraint	2024/08/07 06:08:00	2024/08/07 22:24:00
3	47	Spinning Reserve	2024/08/07 10:51:00	2024/08/07 16:33:00
3	258	Coal constraints	2024/08/07 22:24:00	2024/08/08 00:00:00
3	218	Coal preservation	2024/08/08 00:00:00	2024/08/08 05:25:00
3	40	Coal constraints	2024/08/08 00:00:00	2024/08/08 05:25:00
3	169	Poor vacuum	2024/08/08 05:25:00	2024/08/08 05:29:00
3	168	A&D mills not available	2024/08/08 08:19:00	2024/08/11 04:44:00
3	46	Spinning Reserve	2024/08/08 08:56:00	2024/08/08 16:48:00
3	50	Coal preservation	2024/08/08 20:56:00	2024/08/09 05:00:00
3	50	Spinning Reserve	2024/08/09 06:18:00	2024/08/09 18:37:00
3	50	Coal preservation.	2024/08/09 21:09:00	2024/08/10 04:17:00
3	49	Spinning Reserve	2024/08/10 04:17:00	2024/08/10 07:27:00
3	49	Spinning Reserve	2024/08/10 09:33:00	2024/08/10 20:15:00
3	47	Spinning Reserve	2024/08/10 20:15:00	2024/08/11 04:44:00

3	58	ID fans not coping	2024/08/11 04:44:00	2024/08/14 21:00:00
3	60	Poor condenser vacuum	2024/08/11 04:44:00	2024/08/14 21:00:00
3	100	High stack emissions	2024/08/11 11:42:00	2024/08/11 17:41:00
3	100	AM: High stack emissions.	2024/08/11 17:41:00	2024/08/12 06:09:00
3	48	High stack emissions	2024/08/12 15:06:00	2024/08/12 17:18:00
3	100	EF: Manual rapping	2024/08/12 21:07:00	2024/08/13 03:10:00
3	101	EF: High stack emissions	2024/08/13 03:10:00	2024/08/14 05:09:00
3	103	Spinning Reserve	2024/08/14 07:32:00	2024/08/14 14:35:00
3	58	Spinning Reserve	2024/08/14 14:35:00	2024/08/14 16:51:00
3	100	A&C Mills not available	2024/08/14 16:51:00	2024/08/14 21:00:00
3	217	AM: JPC A flopper gate repairs.	2024/08/14 21:00:00	2024/08/15 05:00:00
3	58	EF: ID fans not coping	2024/08/15 05:00:00	2024/08/31 23:59:59
3	98	EF: High stack emissions	2024/08/15 05:00:00	2024/08/16 06:01:00
3	60	Poor condenser vacuum	2024/08/15 05:00:00	2024/08/28 00:00:00
3	41	Spinning Reserve	2024/08/15 12:20:00	2024/08/15 17:23:00
3	100	Spinning Reserve	2024/08/16 08:45:00	2024/08/16 17:41:00
3	50	High PA flow	2024/08/16 17:41:00	2024/08/17 18:00:00
3	50	EF: High stack emissions	2024/08/16 18:42:00	2024/08/17 00:01:00
3	50	Spinning Reserve	2024/08/17 00:01:00	2024/08/17 09:05:00
3	80	Spinning Reserve	2024/08/17 09:05:00	2024/08/17 16:47:00
3	54	Spinning Reserve	2024/08/17 16:47:00	2024/08/17 18:00:00
3	99	High PA flow	2024/08/17 18:00:00	2024/08/18 10:22:00
3	52	A-mill bunker burning.	2024/08/18 10:22:00	2024/08/21 07:00:00
3	48	Spinning Reserve	2024/08/18 20:08:00	2024/08/19 05:47:00
3	48	Spinning Reserve	2024/08/19 06:44:00	2024/08/19 15:23:00
3	63	High PA flow	2024/08/19 15:23:00	2024/08/19 18:38:00
3	50	Spinning Reserve	2024/08/20 00:05:00	2024/08/20 02:04:00
3	68	Spinning Reserve	2024/08/20 02:04:00	2024/08/20 18:05:00
3	48	Manual rapping	2024/08/20 20:21:00	2024/08/20 23:29:00
3	46	Spinning Reserve	2024/08/20 23:29:00	2024/08/21 18:09:00
3	50	AM: A+B Mills not available.	2024/08/21 07:00:00	2024/08/26 08:52:00
3	48	Spinning Reserve	2024/08/21 18:38:00	2024/08/22 08:41:00
3	68	Spinning Reserve	2024/08/22 08:41:00	2024/08/22 17:01:00
3	48	EF: High stack emissions	2024/08/22 17:10:00	2024/08/22 17:51:00
3	68	EF: High stack emissions	2024/08/22 17:51:00	2024/08/23 05:02:00
3	48	Spinning Reserve	2024/08/23 10:54:00	2024/08/23 17:40:00
3	49	Spinning Reserve	2024/08/23 19:37:00	2024/08/25 17:47:00
3	47	AM: Manual precip. rapping. Emissions high.	2024/08/25 20:13:00	2024/08/26 08:52:00
3	98	High stack emissions	2024/08/26 08:52:00	2024/08/27 00:36:00
3	165	EF:High stack emissions	2024/08/27 00:36:00	2024/08/27 10:39:00
3	148	EF:High stack emissions	2024/08/27 10:39:00	2024/08/28 00:00:00
3	210	AM: 2A MCW p/p sump cleaning.	2024/08/28 00:00:00	2024/08/28 02:47:00
3	150	AM High stack emissions.	2024/08/28 02:47:00	2024/08/28 19:47:00
3	60	AM: Poor main condenser vacuum.	2024/08/28 02:47:00	2024/08/31 23:59:59
3	18	F LH feeder on PTW	2024/08/28 19:47:00	2024/08/29 04:05:00
3	82	Spinning Reserve	2024/08/29 00:56:00	2024/08/29 04:05:00
3	100	High stack emissions	2024/08/29 04:05:00	2024/08/30 09:44:00
3	50	E&F Mills feeders defective	2024/08/29 13:33:00	2024/08/30 09:44:00
3	146	AM: High stack emissions	2024/08/30 09:44:00	2024/08/31 00:33:00
3	75	LHI precip casing repairs	2024/08/31 00:33:00	2024/08/31 23:57:00
3	20	AM: D&F mill in service with one feeder each.	2024/08/31 06:00:00	2024/08/31 23:59:59
3	112	B-mill motor NDE bearing temp high	2024/08/31 23:57:00	2024/08/31 23:59:59
4	151	EF: High PA flows	2024/08/01 00:00:00	2024/08/03 05:23:00
4	64	Coal constraints	2024/08/01 00:00:00	2024/08/01 04:09:00
4	29	Spinning Reserve	2024/08/01 17:38:00	2024/08/01 21:58:00
4	60	Spinning Reserve	2024/08/01 21:58:00	2024/08/02 04:04:00
4	65	coal preservation	2024/08/02 21:28:00	2024/08/03 05:23:00
4	153	Mill B DE & NDE trunnion seal + D Mill feedboxes repairs	2024/08/03 05:23:00	2024/08/03 05:57:00
4	118	Mill B&D trunnion seals inspections and repairs	2024/08/03 05:57:00	2024/08/05 17:44:00
4	98	Spinning Reserve	2024/08/04 01:32:00	2024/08/04 08:51:00
4	19	EF: ID fans not coping.	2024/08/05 17:44:00	2024/08/05 18:44:00
4	26	ID Fans not coping	2024/08/05 18:44:00	2024/08/25 18:53:00
4	188	Coal preservation due to silo 4&5 unavailability	2024/08/05 23:24:00	2024/08/06 04:55:00
4	188	Coal constraints	2024/08/06 04:55:00	2024/08/06 06:22:00
4	210	Coal constraints	2024/08/06 06:22:00	2024/08/06 17:46:00
4	191	Coal constraints.	2024/08/06 17:46:00	2024/08/06 19:46:00

4	211	Coal constraints	2024/08/06 19:46:00	2024/08/07 11:27:00
4	238	Coal constraints	2024/08/07 11:27:00	2024/08/07 16:00:00
4	240	A&C mill short feeders defective and B mill long feeder defective.	2024/08/07 16:00:00	2024/08/08 00:00:00
4	50	Coal constraints	2024/08/08 00:00:00	2024/08/08 05:00:00
4	190	Coal preservation	2024/08/08 00:00:00	2024/08/08 05:00:00
4	70	B-mill long feeder defective	2024/08/08 05:00:00	2024/08/08 15:21:00
4	170	A and C mills short feeders was due to fine coal	2024/08/08 05:00:00	2024/08/08 15:21:00
4	173	A&C Mills short feeders defective and B mill long feeder defective	2024/08/08 15:21:00	2024/08/08 16:35:00
4	138	A&C Mills short feeders defective and B mill long feeder defective	2024/08/08 16:35:00	2024/08/09 16:15:00
4	53	Coal preservation	2024/08/08 20:58:00	2024/08/09 04:49:00
4	38	B Mill defective	2024/08/09 04:49:00	2024/08/09 16:15:00
4	91	AM: A&C mills short feeders defective	2024/08/09 16:15:00	2024/08/10 13:12:00
4	95	coal preservation	2024/08/09 21:31:00	2024/08/10 04:17:00
4	99	Spinning Reserve	2024/08/10 04:17:00	2024/08/10 06:07:00
4	137	Spinning Reserve	2024/08/10 06:07:00	2024/08/10 07:36:00
4	91	Spinning Reserve	2024/08/10 07:36:00	2024/08/10 09:25:00
4	94	Spinning Reserve	2024/08/14 12:43:00	2024/08/14 13:38:00
4	94	Spinning Reserve	2024/08/15 00:03:00	2024/08/15 02:47:00
4	93	EF: C mill bypass damper fails to open	2024/08/15 02:47:00	2024/08/15 03:17:00
4	90	Spinning Reserve	2024/08/15 09:24:00	2024/08/15 14:03:00
4	195	Spinning Reserve	2024/08/16 00:13:00	2024/08/16 02:40:00
4	190	High hopper levels	2024/08/16 08:29:00	2024/08/16 09:29:00
4	140	High hopper levels	2024/08/16 09:29:00	2024/08/16 16:58:00
4	93	EF:High stack emissions	2024/08/16 21:09:00	2024/08/17 00:50:00
4	173	EF: High stack emissions	2024/08/17 00:50:00	2024/08/17 17:23:00
4	90	High stack emissions.	2024/08/17 17:23:00	2024/08/19 05:50:00
4	100	AM: High hopper levels	2024/08/17 20:16:00	2024/08/19 05:50:00
4	182	EF:High stack emissions	2024/08/19 05:50:00	2024/08/19 08:35:00
4	90	EF:High stack emissions	2024/08/19 08:35:00	2024/08/19 10:23:00
4	95	Spinning Reserve	2024/08/19 08:35:00	2024/08/19 10:23:00
4	184	Spinning Reserve	2024/08/19 10:23:00	2024/08/19 16:01:00
4	94	EF:High stack emissions.	2024/08/19 16:01:00	2024/08/20 16:50:00
4	76	Spinning Reserve	2024/08/20 00:22:00	2024/08/20 16:51:00
4	95	AM: A&C mill not available.	2024/08/20 16:51:00	2024/08/21 04:55:00
4	129	C mill not available	2024/08/21 04:55:00	2024/08/21 05:18:00
4	93	C mill not available	2024/08/21 05:18:00	2024/08/22 05:34:00
4	242	A,B&C mills not available.	2024/08/22 05:34:00	2024/08/22 06:28:00
4	218	A,B&C mills not available	2024/08/22 06:28:00	2024/08/22 08:56:00
4	18	Spinning Reserve	2024/08/22 06:50:00	2024/08/22 08:56:00
4	110	AM: A & C mills not available	2024/08/22 08:56:00	2024/08/22 17:10:00
4	82	Spinning Reserve	2024/08/22 08:56:00	2024/08/22 17:10:00
4	112	AM: A & C mills not available	2024/08/22 17:10:00	2024/08/22 17:39:00
4	90	AM: A & C mills not available.	2024/08/22 17:39:00	2024/08/29 14:14:00
4	103	Spinning Reserve	2024/08/23 00:10:00	2024/08/23 06:30:00
4	19	Spinning Reserve	2024/08/23 06:30:00	2024/08/23 10:57:00
4	95	Spinning Reserve	2024/08/23 10:57:00	2024/08/23 17:45:00
4	76	Spinning Reserve	2024/08/23 19:45:00	2024/08/24 08:37:00
4	87	Spinning Reserve	2024/08/24 08:37:00	2024/08/24 13:50:00
4	102	Spinning Reserve	2024/08/24 13:50:00	2024/08/25 17:50:00
4	10	Spinning Reserve	2024/08/25 17:50:00	2024/08/25 18:53:00
4	28	ID Fans not coping	2024/08/25 18:53:00	2024/08/29 14:14:00
4	50	Spinning Reserve	2024/08/25 23:57:00	2024/08/26 15:23:00
4	100	EF:High stack emissions	2024/08/26 17:27:00	2024/08/26 18:06:00
4	81	Spinning Reserve	2024/08/27 00:00:00	2024/08/27 04:43:00
4	23	Spinning Reserve	2024/08/27 04:43:00	2024/08/27 07:29:00
4	80	Spinning Reserve	2024/08/27 07:29:00	2024/08/28 07:11:00
4	100	Spinning Reserve	2024/08/28 07:11:00	2024/08/28 17:17:00
4	30	ID fan not coping	2024/08/29 14:15:00	2024/08/31 18:03:00
4	79	AM: B mill PF leak repairs	2024/08/30 15:42:00	2024/08/31 18:03:00
4	15	AM: F mill long feeder blocked due to foreign object.	2024/08/30 17:29:00	2024/08/31 18:03:00
4	12	Spinning Reserve	2024/08/30 18:16:00	2024/08/31 06:25:00
4	20	Spinning Reserve	2024/08/31 06:25:00	2024/08/31 14:16:00
4	118	AM: C&E mills not available	2024/08/31 18:03:00	2024/08/31 23:59:59
5	0	Cold Reserve	2024/08/03 22:52:00	2024/08/04 15:26:00
5	296	System Generated Ramp Event for Event id : 1962306	2024/08/04 15:26:00	2024/08/04 17:56:00
5	114	AM: LHI precip casing repairs	2024/08/04 17:56:00	2024/08/04 22:44:00

5	0	Cold Reserve	2024/08/04 22:44:00	2024/08/04 23:29:00
5	297	System Generated Ramp Event for Event id : 1962578	2024/08/04 23:29:00	2024/08/05 00:59:00
5	215	Spinning Reserve	2024/08/05 00:59:00	2024/08/05 15:20:00
5	38	Spinning Reserve	2024/08/05 15:20:00	2024/08/05 15:56:00
5	58	EF: ID fans not coping	2024/08/05 15:56:00	2024/08/05 16:43:00
5	67	EF: ID fans not coping	2024/08/05 16:43:00	2024/08/06 02:36:00
5	149	EF:High stack emissions	2024/08/05 20:12:00	2024/08/06 02:36:00
5	217	Coal constraints	2024/08/06 02:36:00	2024/08/06 20:47:00
5	258	Coal constraints	2024/08/06 20:47:00	2024/08/07 06:28:00
5	226	Coal constraints	2024/08/07 06:28:00	2024/08/07 08:36:00
5	593	boiler tube leak	2024/08/07 08:36:00	2024/08/16 09:45:00
5	297	System Generated Ramp Event for Event id : 1963836	2024/08/16 09:45:00	2024/08/16 12:45:00
5	216	Spinning Reserve	2024/08/16 12:45:00	2024/08/16 13:01:00
5	169	Spinning Reserve	2024/08/16 13:01:00	2024/08/16 13:08:00
5	218	Spinning Reserve	2024/08/16 13:08:00	2024/08/16 13:21:00
5	165	Spinning Reserve	2024/08/16 13:21:00	2024/08/16 16:15:00
5	165	D-mill lube oil pump seals +E-mill short feeder + A-mill on PTW	2024/08/16 16:15:00	2024/08/16 19:53:00
5	78	AM: C&E mill in service with one feeder each.	2024/08/16 19:53:00	2024/08/16 21:06:00
5	57	C&E Mills running one feeder each	2024/08/16 21:06:00	2024/08/16 23:24:00
5	111	Spinning Reserve	2024/08/17 00:13:00	2024/08/17 07:18:00
5	178	Spinning Reserve	2024/08/17 07:18:00	2024/08/17 07:38:00
5	118	Spinning Reserve	2024/08/17 07:38:00	2024/08/17 09:04:00
5	166	Spinning Reserve	2024/08/17 09:04:00	2024/08/17 15:43:00
5	116	Spinning Reserve	2024/08/17 15:43:00	2024/08/17 16:09:00
5	68	Spinning Reserve	2024/08/17 16:09:00	2024/08/17 17:06:00
5	58	Spinning Reserve	2024/08/18 01:34:00	2024/08/18 02:06:00
5	116	Spinning Reserve	2024/08/18 02:06:00	2024/08/18 18:02:00
5	68	RH ID fan vanes defective.	2024/08/19 16:44:00	2024/08/19 18:05:00
5	56	RH ID fan vanes defective.	2024/08/19 18:05:00	2024/08/20 03:36:00
5	73	Spinning Reserve	2024/08/20 00:07:00	2024/08/20 03:36:00
5	80	Spinning Reserve	2024/08/20 03:36:00	2024/08/20 03:47:00
5	118	Spinning Reserve	2024/08/20 03:47:00	2024/08/20 04:10:00
5	33	Spinning Reserve	2024/08/20 04:10:00	2024/08/20 04:33:00
5	58	Spinning Reserve	2024/08/20 04:33:00	2024/08/20 05:49:00
5	48	Spinning Reserve	2024/08/20 05:49:00	2024/08/20 06:29:00
5	38	Spinning Reserve	2024/08/20 06:29:00	2024/08/20 07:10:00
5	117	Spinning Reserve	2024/08/20 07:10:00	2024/08/20 17:51:00
5	38	EF: ID fans not coping	2024/08/20 18:01:00	2024/08/21 18:17:00
5	99	Spinning Reserve	2024/08/20 21:13:00	2024/08/20 22:17:00
5	131	Spinning Reserve	2024/08/20 22:17:00	2024/08/21 18:17:00
5	18	EF: ID fans not coping	2024/08/21 18:17:00	2024/08/26 15:41:00
5	98	Spinning Reserve	2024/08/21 18:53:00	2024/08/22 07:14:00
5	200	Spinning Reserve	2024/08/22 07:14:00	2024/08/22 17:19:00
5	100	Mill load lines	2024/08/22 21:13:00	2024/08/22 22:03:00
5	50	Mill load lines	2024/08/22 22:03:00	2024/08/23 04:05:00
5	100	Spinning Reserve	2024/08/23 20:35:00	2024/08/24 09:05:00
5	200	Spinning Reserve	2024/08/24 09:05:00	2024/08/24 17:47:00
5	100	Spinning Reserve	2024/08/24 17:47:00	2024/08/24 20:32:00
5	200	Spinning Reserve	2024/08/24 20:32:00	2024/08/25 17:42:00
5	100	Spinning Reserve	2024/08/25 17:42:00	2024/08/25 18:04:00
5	25	B&E Mills running one feeder each	2024/08/25 18:37:00	2024/08/25 21:35:00
5	35	Spinning Reserve	2024/08/26 06:52:00	2024/08/26 08:06:00
5	200	Spinning Reserve	2024/08/26 08:06:00	2024/08/26 08:10:00
5	200	Spinning Reserve	2024/08/26 08:10:00	2024/08/26 15:33:00
5	18	ID fan not coping	2024/08/26 18:32:00	2024/08/29 08:00:00
5	78	Spinning Reserve	2024/08/27 07:55:00	2024/08/27 07:55:00
5	180	Spinning Reserve	2024/08/27 07:55:00	2024/08/27 16:34:00
5	100	AM:Mill C ball loading hopper repairs.	2024/08/28 01:00:00	2024/08/28 02:40:00
5	100	Spinning Reserve	2024/08/28 07:03:00	2024/08/28 07:25:00
5	10	E mill short feeder not available	2024/08/28 17:24:00	2024/08/29 08:00:00
5	218	Spinning Reserve	2024/08/29 22:05:00	2024/08/30 03:37:00
5	48	AM:C mill long feeders O/C	2024/08/31 17:55:00	2024/08/31 23:59:59
5	40	Spinning Reserve	2024/08/31 23:42:00	2024/08/31 23:59:59
6	213	S03 plant optimization	2024/08/01 00:00:00	2024/08/01 02:55:00
6	25	SSC standing	2024/08/01 00:00:00	2024/08/01 02:55:00
6	218	S03 plant optimization	2024/08/01 02:55:00	2024/08/01 12:28:00

6	89	EFP B main pump bearing temperature spiking	2024/08/01 03:39:00	2024/08/01 04:41:00
6	79	EFP B main pump bearing temperature spiking	2024/08/01 04:41:00	2024/08/01 05:23:00
6	48	EFP B main pump bearing temperature spiking	2024/08/01 05:23:00	2024/08/01 12:28:00
6	74	EFP B tripped causing unit to have a capability.	2024/08/01 11:13:00	2024/08/01 12:28:00
6	158	S03 plant optimization	2024/08/01 12:28:00	2024/08/02 05:04:00
6	119	AM: D mill short feeder control card faulty	2024/08/02 05:04:00	2024/08/02 08:11:00
6	21	AM: D mill short feeder control card faulty	2024/08/02 08:11:00	2024/08/02 12:28:00
6	118	EF: Boiler unstable due to drum	2024/08/02 14:18:00	2024/08/02 15:48:00
6	45	Unstable combustion.	2024/08/02 15:48:00	2024/08/03 16:45:00
6	173	Coal preservation	2024/08/02 21:49:00	2024/08/03 05:16:00
6	88	A-mill grease system faulty	2024/08/03 05:16:00	2024/08/03 15:12:00
6	85	Spinning Reserve	2024/08/03 15:12:00	2024/08/03 16:12:00
6	52	Spinning Reserve	2024/08/03 16:12:00	2024/08/03 16:45:00
6	63	EF: Unstable combustion	2024/08/03 16:45:00	2024/08/04 18:03:00
6	145	AM: SSC standing	2024/08/04 08:22:00	2024/08/04 09:46:00
6	155	AM: SSC standing	2024/08/04 09:46:00	2024/08/04 18:03:00
6	59	AM: Unstable combustion.	2024/08/04 18:03:00	2024/08/05 08:33:00
6	60	Spinning Reserve	2024/08/04 23:43:00	2024/08/05 06:32:00
6	61	B mill tripped	2024/08/05 06:32:00	2024/08/05 08:33:00
6	60	AM: Unstable combustion	2024/08/05 08:33:00	2024/08/05 19:30:00
6	59	Spinning Reserve	2024/08/05 10:16:00	2024/08/05 14:59:00
6	34	AM: Mill C short feeder o/c.	2024/08/05 17:57:00	2024/08/05 19:30:00
6	93	Unstable combustion	2024/08/05 19:30:00	2024/08/05 21:22:00
6	53	Unstable combustion	2024/08/05 21:22:00	2024/08/06 08:22:00
6	165	Coal preservation due to silo 4&5 unavailability	2024/08/05 23:27:00	2024/08/06 00:37:00
6	212	Coal preservation due to silo 4&5 unavailability	2024/08/06 00:37:00	2024/08/06 04:57:00
6	224	Coal constraints	2024/08/06 04:57:00	2024/08/06 05:08:00
6	180	Coal constraints	2024/08/06 05:08:00	2024/08/06 06:25:00
6	213	Coal constraints	2024/08/06 06:25:00	2024/08/06 08:22:00
6	321	Coal constraints	2024/08/06 08:22:00	2024/08/06 10:17:00
6	490	Coal constraints	2024/08/06 10:17:00	2024/08/06 12:13:00
6	218	Coal constraints	2024/08/06 12:13:00	2024/08/06 17:26:00
6	118	Coal constraints	2024/08/06 17:26:00	2024/08/06 18:43:00
6	238	Coal constraints	2024/08/06 18:43:00	2024/08/06 19:37:00
6	240	Coal constraints	2024/08/06 19:37:00	2024/08/07 02:01:00
6	310	Coal constraints	2024/08/07 02:02:00	2024/08/07 03:26:00
6	268	Coal constraints	2024/08/07 03:26:00	2024/08/07 05:58:00
6	169	Coal constraints	2024/08/07 05:58:00	2024/08/07 09:43:00
6	123	coal constraints	2024/08/07 09:43:00	2024/08/07 16:42:00
6	97	Spinning Reserve	2024/08/07 10:58:00	2024/08/07 16:42:00
6	129	B-mill gearbox coupling guard damaged.	2024/08/07 16:42:00	2024/08/07 18:24:00
6	60	High PA flow	2024/08/07 18:24:00	2024/08/08 16:22:00
6	160	Coal constraints	2024/08/07 22:28:00	2024/08/08 05:17:00
6	56	Spinning Reserve	2024/08/08 08:50:00	2024/08/08 10:54:00
6	157	Spinning Reserve	2024/08/08 10:54:00	2024/08/08 16:22:00
6	62	High PA flow	2024/08/08 16:22:00	2024/08/10 21:02:00
6	56	Spinning Reserve	2024/08/10 01:48:00	2024/08/10 07:04:00
6	58	Spinning Reserve	2024/08/10 09:33:00	2024/08/10 21:02:00
6	0	Spray water NW81S020 LEAKING GLANDS	2024/08/10 21:02:00	2024/08/12 00:39:00
6	296	System Generated Ramp Event for Event id : 1964997	2024/08/12 00:39:00	2024/08/12 03:09:00
6	216	Spinning Reserve	2024/08/12 03:09:00	2024/08/12 03:42:00
6	216	Boiler KHI high	2024/08/12 03:42:00	2024/08/12 08:34:00
6	168	D Mill long feeder COC faulty &F mills not available	2024/08/12 08:34:00	2024/08/12 10:24:00
6	68	High PA flow	2024/08/12 10:24:00	2024/08/12 17:38:00
6	593	Unit tripped due to EFP A&B tripped	2024/08/12 17:38:00	2024/08/12 22:07:00
6	297	System Generated Ramp Event for Event id : 1965670	2024/08/12 22:07:00	2024/08/12 23:37:00
6	394	AM: IP CV's fail to open.	2024/08/12 23:37:00	2024/08/13 06:08:00
6	238	EF: A&D mills not available	2024/08/13 06:08:00	2024/08/13 07:02:00
6	154	Spinning Reserve	2024/08/13 12:18:00	2024/08/13 15:42:00
6	61	PA flow trasnsmitters over -reading	2024/08/13 17:02:00	2024/08/14 17:03:00
6	62	Spinning Reserve	2024/08/13 22:16:00	2024/08/14 04:37:00
6	160	Spinning Reserve	2024/08/14 08:06:00	2024/08/14 14:56:00
6	60	Spinning Reserve	2024/08/14 14:56:00	2024/08/14 16:54:00
6	39	PA flow trasnsmitters over -reading	2024/08/14 17:03:00	2024/08/15 17:45:00
6	81	Spinning Reserve	2024/08/14 23:03:00	2024/08/14 23:45:00
6	68	PA flow trasnsmitters over -reading	2024/08/15 17:45:00	2024/08/17 04:06:00

6	52	Spinning Reserve	2024/08/15 23:15:00	2024/08/16 16:03:00
6	154	EFB B bearing temp high.	2024/08/16 16:04:00	2024/08/16 23:28:00
6	101	A,C&E Mills feeders defective	2024/08/16 23:28:00	2024/08/17 04:06:00
6	68	PA flow trasnsmitters over -reading	2024/08/17 04:06:00	2024/08/18 07:26:00
6	52	A+E mills in service with one feeder each	2024/08/17 04:06:00	2024/08/17 17:41:00
6	52	EFB B bearing temp high	2024/08/17 17:41:00	2024/08/18 07:26:00
6	593	Safety valve pipe repairs	2024/08/18 07:26:00	2024/08/27 03:58:00
6	297	System Generated Ramp Event for Event id : 1967677	2024/08/27 03:58:00	2024/08/27 06:58:00
6	218	5th mill not available.	2024/08/27 07:00:00	2024/08/27 11:26:00
6	118	F Mill commisioning & C Mill PA isol damper S005 stuck	2024/08/27 11:26:00	2024/08/30 23:18:00
6	100	Spinning Reserve	2024/08/27 11:26:00	2024/08/27 16:50:00
6	100	Spinning Reserve	2024/08/28 07:01:00	2024/08/28 17:10:00
6	100	Coal constraints	2024/08/29 15:14:00	2024/08/29 16:05:00
6	50	A&E mill feeder COC cleaning cleanign not available	2024/08/29 16:05:00	2024/08/30 08:49:00
6	50	Spinning Reserve	2024/08/29 21:40:00	2024/08/30 08:41:00
6	270	B&E mill liner bolt repairs	2024/08/30 23:18:00	2024/08/31 18:47:00
6	118	F Mill commisioning & C Mill PA isol damper S005 stuck	2024/08/31 18:47:00	2024/08/31 23:48:00
6	593	Main turbine Physical over speed test	2024/08/31 23:48:00	2024/08/31 23:59:59

PM Exceedances		
U1.	LHO ESP Casing Outage	03-Aug
U1.	RHI ESP Casing outage	11-Aug
U1.	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.	22-Aug
U1.	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.	23-Aug
U1.	High hopper levels. A stream bucket elevator repairs. Poor ESP casings performance.	24-Aug
U2.	SO3 plant unavailable	01-Aug
U2.	The unit synchronised on 2024/07/29 @ 07:28, therefore the emissions needed to be below by 2024/08/01 @ 07:28 and remain below the limit unit 2024/08/02 @ 23:59 SO3 plant challenges	02-Aug
U2.	Limitations on the SO3 plant.	07-Aug
U2.	Limitations on the SO3 plant. Manual rapping.	08-Aug
U2.	Poor ESP casing performance. SO3 plant poor performance	10-Aug
U2.	Manual rapping done. Poor ESP casing performance. SO3 plant poor performance	11-Aug
U2.	Manual rapping done. SO3 plant poor performance (dosing 30 kg/h).	13-Aug
U2.	Manual rapping done. SO3 plant dosing limited to 30 kg/h.	15-Aug
U2.	Unit 2 shut down for cold reserve.	16-Aug
U2.	Unit 2 shut down for cold reserve.	17-Aug
U2.	Unit 2 shut down for cold reserve.	18-Aug
U2.	The unit synchronised on 2024/08/19 @ 02:07, therefore the emissions need to be below the limit 2024/08/22 @ 02:07 and remain below the limit until 2024/08/23.	19-Aug
U2.	The unit synchronised on 2024/08/19 @ 02:07, therefore the emissions need to be below the limit 2024/08/22 @ 02:07 and remain below the limit until 2024/08/23.	20-Aug
U2.	The unit synchronised on 2024/08/19 @ 02:07, therefore the emissions need to be below the limit 2024/08/22 @ 02:07 and remain below the limit until 2024/08/23.	21-Aug
U2.	Unit shutdown for BTL	23-Aug
U2.	Unit off for BTL repairs	24-Aug
U2.	Unit off for BTL repairs	25-Aug
U2.	Unit off for BTL repairs	26-Aug
U2.	Unit off for BTL repairs	27-Aug
U2.	Unit off for BTL repairs	28-Aug
U2.	U2 off for SO3 plant repairs after BTL repairs complete.	29-Aug
U3.	RHI Casing outage	02-Aug
U3.	Manual rapping	07-Aug
U3.	Manual rapping done. Poor ESP Casing field performance.	12-Aug
U3.	Manual rapping done. Poor ESP casing performance.	18-Aug
U3.	Manual rapping done. Poor ESP casing performance.	20-Aug
U3.	ESP poor performance	23-Aug
U3.	Poor ESP casing performance	24-Aug
U3.	ESP RHI/RHO casings switching off (Electrical cable fault) Manual rapping carried out.	25-Aug

PM Exceedances		
U3.	Clean carried out. High hopper levels. DHP issues. Poor ESP casing fields performance.	26-Aug
U3.	Poor ESP casing performance. Manual rapping done. High hopper levels.	28-Aug
U3.	High hopper levels. LHI Casing on PTW	31-Aug
U4.	Manual rapping	08-Aug
U4.	Manual rapping done. High hopper levels. Poor ESP casing performance.	15-Aug
U4.	High hopper levels. Poor ESP casings performance. SO3 plant sulphur flow (79kg/h) due to load of 830MW (incorrect Boiler Load).	16-Aug
U4.	RHI casing isolated due to high hopper levels. High ash hopper levels. Poor ESP casing performance.	17-Aug
U4.	Poor ESP casing performance. ID Fan inlet temps high due to manual control of biasing dampers.	29-Aug
U4.	Manual rapping. Poor ESP casing field performance.	30-Aug
U5.	Manual rapping. Biler load controller on manual - Load fluctuating.	01-Aug

PM Exceedances		
U5.	Boiler Load controller on manual -Load fluctuating Boiler increased affecting emissions. ESP Fields faulty (poor performance)	02-Aug
U5.	LHI casing outage Boiler load on manual -Load fluctuating Boiler increased affecting emissions.	03-Aug
U5.	The unit synchronised on 2024/08/04 @ 23:30, therefore the emissions need to be below the limit by 2024/08/07 @ 23:30 and remain below the limit unit 2024/08/08 @ 23:59	04-Aug
U5.	Unit off for boiler tube leak.	08-Aug
U5.	Unit off for boiler tube leak.	09-Aug
U5.	Unit off for boiler tube leak.	10-Aug
U5.	Unit off for boiler tube leak.	11-Aug
U5.	Unit off for boiler tube leak.	12-Aug
U5.	Unit off for boiler tube leak.	13-Aug
U5.	Unit off for boiler tube leak.	14-Aug
U5.	Unit off for boiler tube leak.	15-Aug
U5.	Unit 5 start up conditions (09h45) 2024/08/16	16-Aug
U5.	No clean rapping done. Unit 5 start up conditions (09h45) 2024/08/16	17-Aug
U5.	Routine manual rapping done	23-Aug
U5.	Manual rapping done.	31-Aug
U6.	Poor ESP Casing performance. High hopper levels. SO3 plant off due to load restrictions.	06-Aug
U6.	Boiler tripped.	11-Aug
U6.	The unit synchronised on 2024/08/12 @ 22:07 therefore the emissions need to be below the limit 2024/08/15 @ 22:07 and remain below the limit until 2024/08/16. High hopper levels.	12-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	18-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	19-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	20-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	21-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	22-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	23-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	24-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	25-Aug
U6.	U6 Boiler Shutdown for SH safety valve leak	26-Aug
U6.	Unit 6 synchronised on load on 2024/08/27 @ 03:57, therefore the emissions need to be below the limit on 2024/08/30 @ 03:57 and remain below the limit until 2024/08/31 @ 23:59	27-Aug