



Mr. Chakane Sibaya  
Air Quality Officer  
Fezile Dabi District Municipality  
P.O Box 10  
Sasolburg  
1947

Date:  
21 April 2023

Enquiries:  
W de Klerk  
Tel +27 16 457 5308

**LCR02PLA000 \_0353/20230412**

Dear Mr. Sibaya

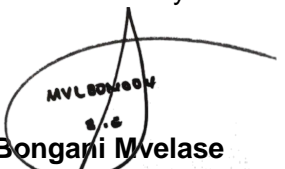
**LETHABO POWER STATION EMISSION MONTHLY REPORT FOR MARCH 2023**

Please find attached Lethabo Power Station emission report for the month of March 2023.

Also attached are the Ambient Air Quality Monitoring Report, Complaints Register and the Fugitive Dust Fallout Monitoring Report for March 2023.

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

Yours sincerely

  
**Bongani Mvelase**  
**GENERAL MANAGER**

**Generation Division (Cluster 1)**  
Lethabo; Duvha; Grootvlei; Kusile & Matla Power Stations  
Viljoensdrif / Deneysville Free State  
Private Bag X415 Vereeniging 1930 SA  
Tel +27 16 457 5111 Fax +27 16 457 5712 [www.eskom.co.za](http://www.eskom.co.za)  
Eskom Holdings SOC Ltd Reg No 2002/015527/30



Report

Lethabo Power Station

Report name: **Lethabo Power Station  
March 2023  
Emission Report**

Reference number: **LCR02PLA000\_0353/20230412**  
Document Type: **Report**  
Area of Applicability: **Environment**  
Report Date: **April-2023**  
Classification: **Controlled Disclosure**

Signatures:

**Compiled by:**

  
.....  
P Parag  
**System Engineer**


**Date:** 2023-04-20  
.....

**Verified by :**

  
.....  
W de Klerk  
**Senior Advisor**

**Date:** 2023-04-20  
.....

**Reviewed by:**

  
.....  
S Zulu  
**Acting BPE Manager**

**Date:** 20/04/2023  
.....

**Reviewed by:**

  
.....  
C Govinden  
**PE Manager**


**Date:** 2023-04-20  
.....

**Reviewed by:**

  
.....  
L Nel  
**C&I Manager**

**Date:** 2023-04-20  
.....

**Reviewed by:**

  
.....  
M Hariram  
**Environmental Manager**

**Date:** 2023-04-20  
.....

**Approved by:**

  
.....  
Theko Shete  
**Engineering Manager**

**Date:** 2023-04-20  
.....

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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 Mar-2023
	Coal	Tons	2 000 000	1 346 223
	Fuel Oil	Tons	1 700	973.48
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Mar-2023
	Energy	GWh	2834.64	1 846.00
	Ash	Tons	770 000	525 430.6
	RE Ash	kg/MWh	Not Specified	284.63

**2. ENERGY SOURCE CHARACTERISTICS**

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.656 (Standard)	0.680
Ash Content	%	37.37 (Standard)	39.030

\*Please 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/Nm<sup>3</sup>)

Associated Unit/Stack	PM	SO <sub>2</sub>	NOx
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 Mar-2023	Technology Type	SO <sub>3</sub> Utilization Mar-2023
Unit 1	<i>Electrostatic Precipitator (ESP)</i>	99.80%	SO <sub>3</sub>	100.0%
Unit 2	<i>Electrostatic Precipitator (ESP)</i>	99.86%	SO <sub>3</sub>	98.9%
Unit 3	<i>Electrostatic Precipitator (ESP)</i>	99.78%	SO <sub>3</sub>	95.2%
Unit 4	<i>Electrostatic Precipitator (ESP)</i>	99.78%	SO <sub>3</sub>	95.5%
Unit 5	<i>Electrostatic Precipitator (ESP)</i>	99.74%	SO <sub>3</sub>	99.3%
Unit 6	<i>Electrostatic Precipitator (ESP)</i>	99.83%	SO <sub>3</sub>	95.0%

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

### 5. MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO
Unit 1	99.7	100.0	100.0
Unit 2	98.8	100.0	100.0
Unit 3	99.1	99.9	100.0
Unit 4	97.2	100.0	100.0
Unit 5	97.3	100.0	100.0
Unit 6	99.1	100.0	100.0

Note: NOx emissions is measured as NO in PPM. Final NOx value is expressed as total NO<sub>2</sub>

## 6. EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of March 2023

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)
Unit 1	77.7	1 358	746
Unit 2	146.5	3 521	1 562
Unit 3	212.6	3 883	1 853
Unit 4	172.2	2 749	1 345
Unit 5	250.6	4712	1575
Unit 6	98.9	2 059	1 058
<b>SUM</b>	<b>958.6</b>	<b>18 281</b>	<b>8 139</b>

Table 6.2: Operating days in compliance to PM AEL Limit - March 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
Unit 1	10	3	0	0	3	95.5
Unit 2	24	6	0	0	6	74.2
Unit 3	21	10	0	0	10	100.3
Unit 4	14	11	0	0	11	121.9
Unit 5	21	10	0	0	10	113.2
Unit 6	15	5	0	0	5	97.2
<b>SUM</b>	<b>105</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>45</b>	

Table 6.3: Operating days in compliance to SO<sub>2</sub> AEL Limit - March 2023

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average SO <sub>2</sub> (mg/Nm <sup>3</sup> )
Unit 1	13	0	0	0	0	1 643.7
Unit 2	31	0	0	0	0	1 753.2
Unit 3	31	0	0	0	0	1 841.2
Unit 4	28	0	0	0	0	1 791.8
Unit 5	31	0	0	0	0	1 968.7
Unit 6	22	0	0	0	0	1 684.8
<b>SUM</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 6.4: Operating days in compliance to NOx AEL Limit - March 2023

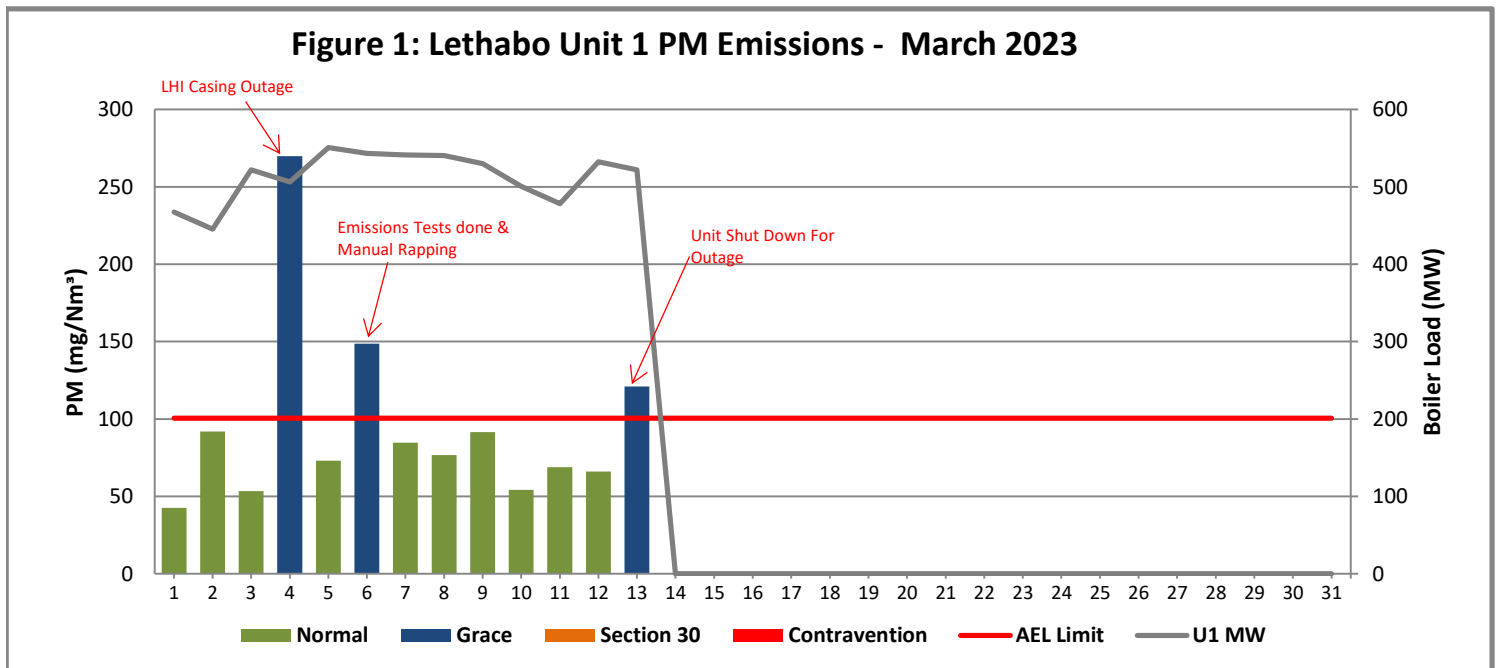
Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average NOx (mg/Nm³)
Unit 1	13	0	0	0	0	899.1
Unit 2	31	0	0	0	0	775.6
Unit 3	31	0	0	0	0	875.8
Unit 4	28	0	0	0	0	857.4
Unit 5	31	0	0	0	0	656.8
Unit 6	22	0	0	0	0	833.3
<b>SUM</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Note: NOx emissions is measured as NO in PPM. Final NOx value is expressed as total NO<sub>2</sub>

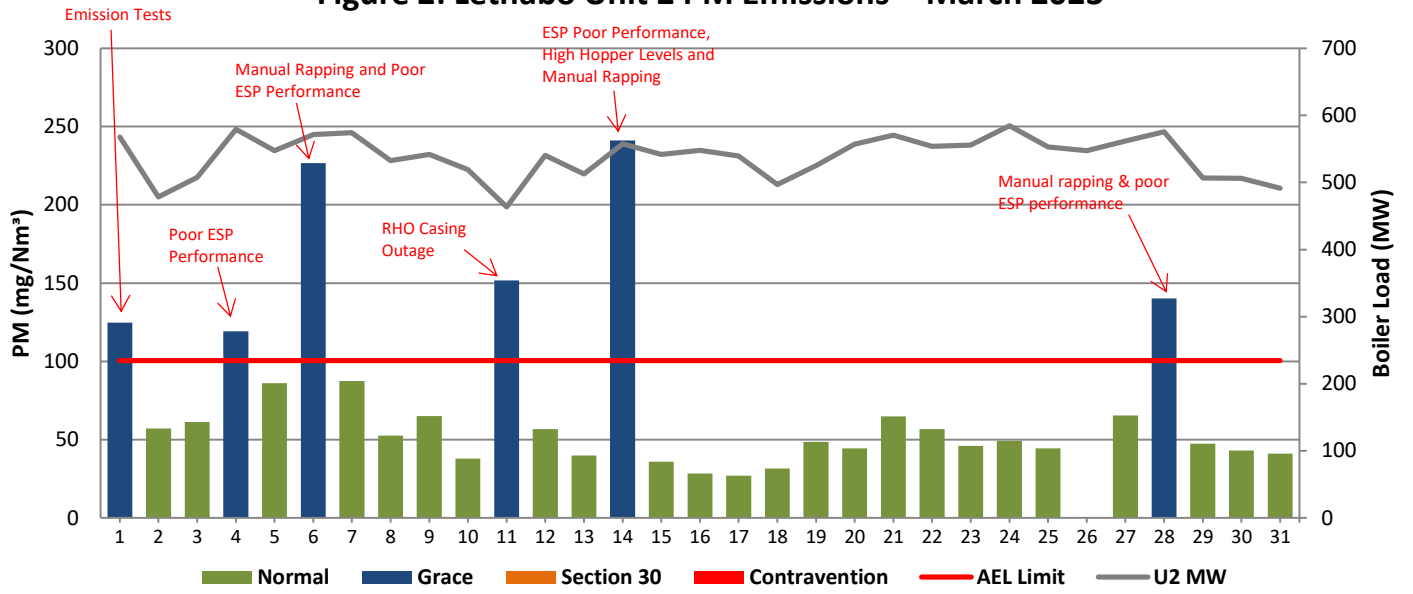
Table 6.5: Legend Description

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

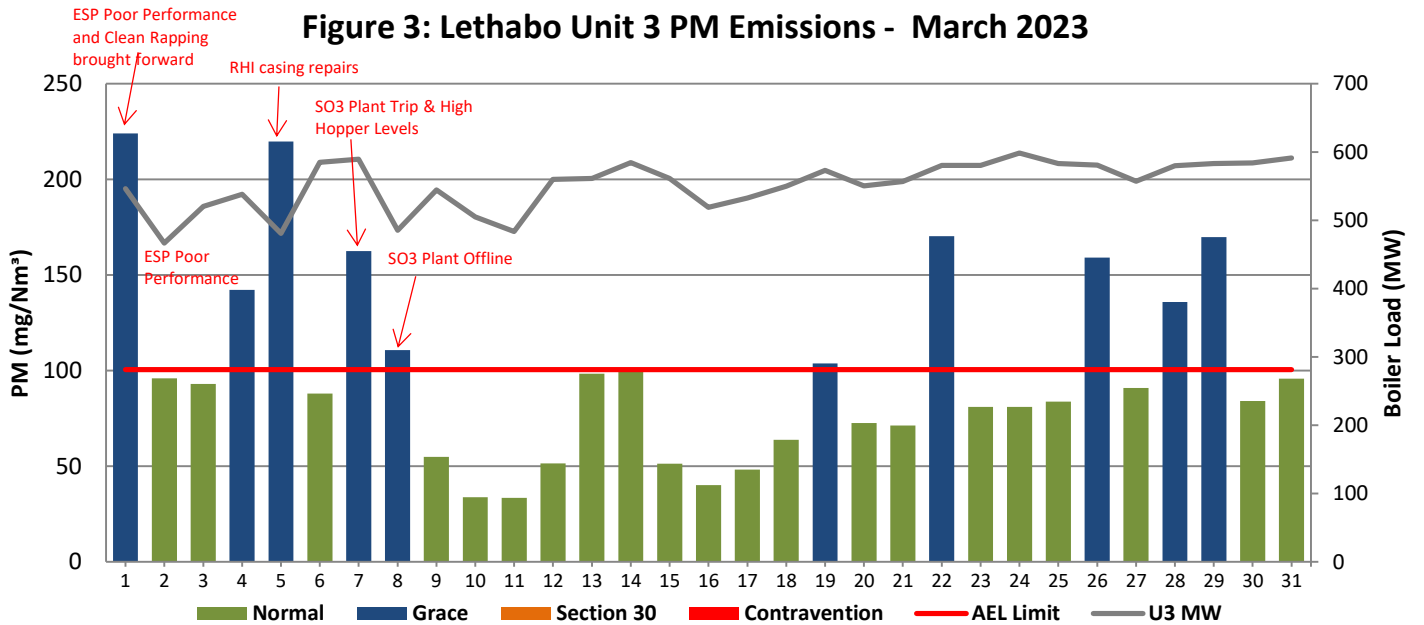
Figure 1: Lethabo Unit 1 PM Emissions - March 2023



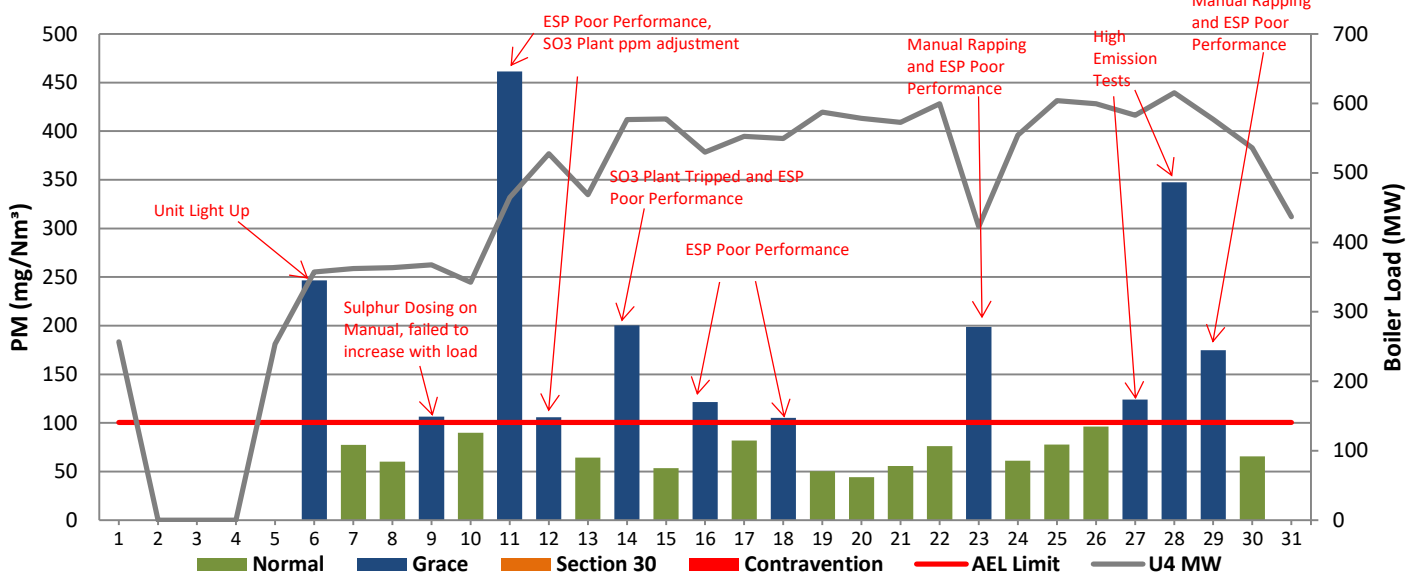
**Figure 2: Lethabo Unit 2 PM Emissions - March 2023**



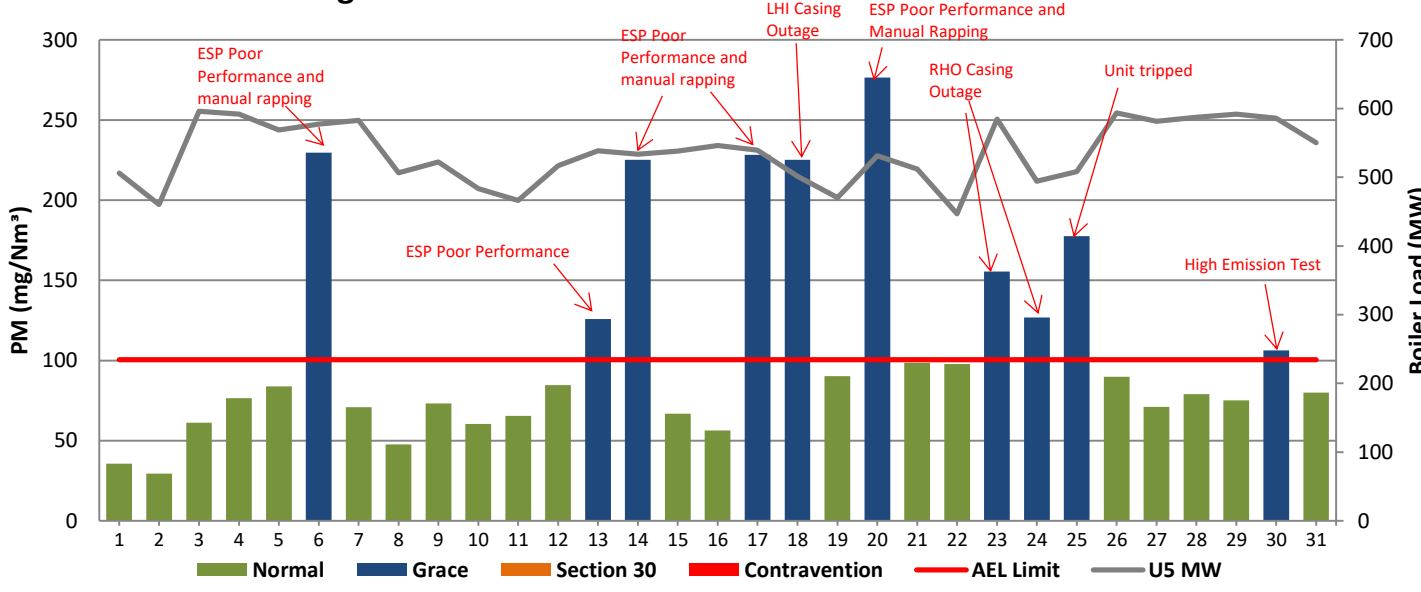
**Figure 3: Lethabo Unit 3 PM Emissions - March 2023**



**Figure 4: Lethabo Unit 4 PM Emissions - March 2023**

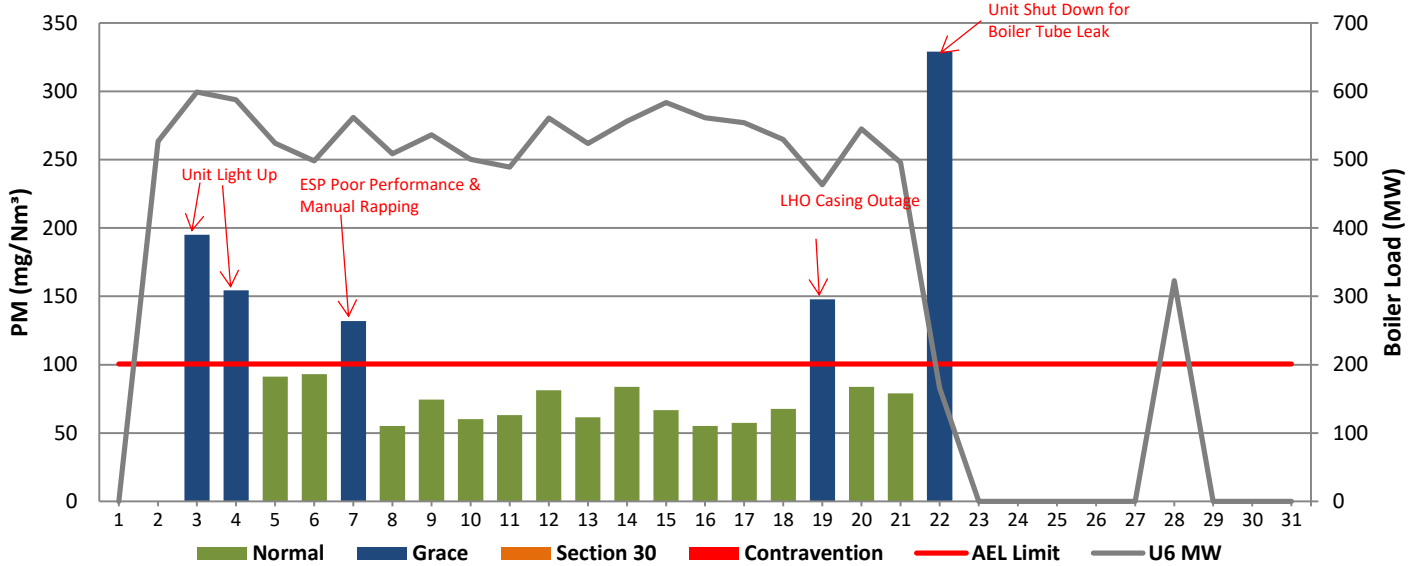


**Figure 5: Lethabo Unit 5 PM Emissions - March 2023**

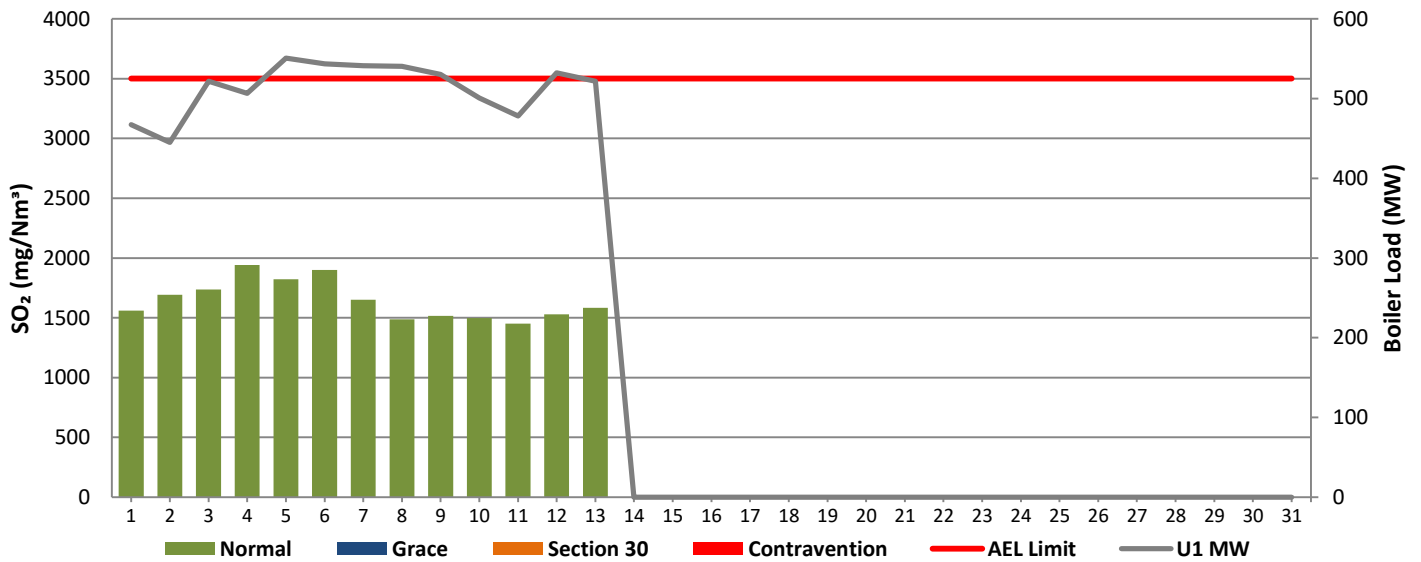




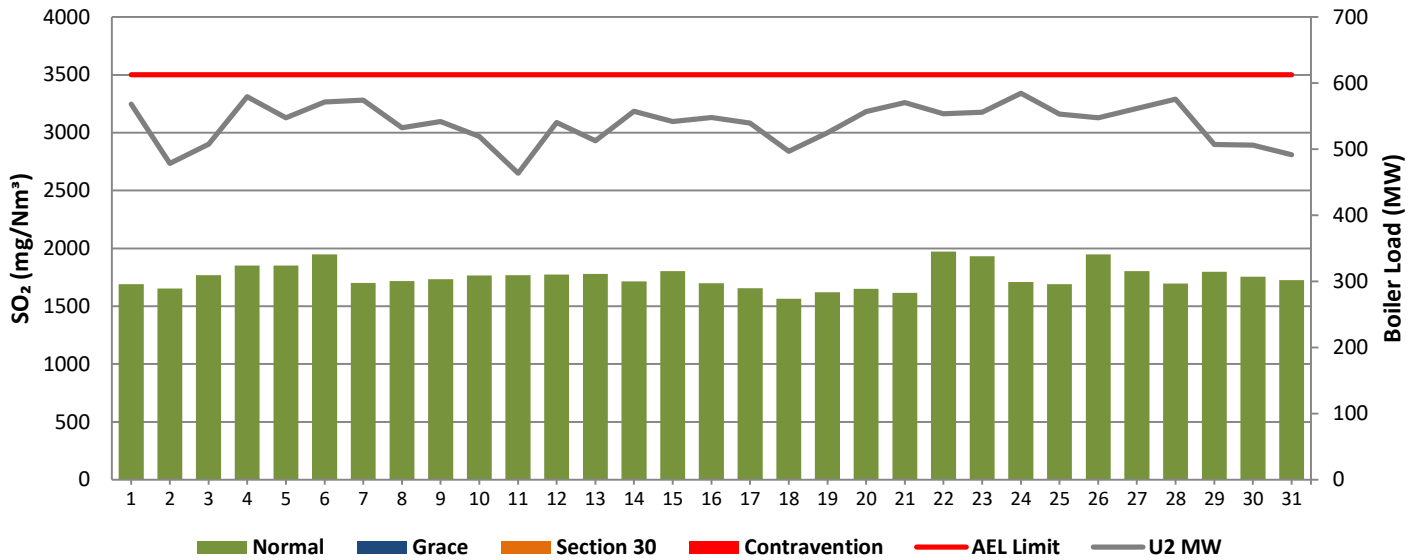
**Figure 6: Lethabo Unit 6 PM Emissions - March 2023**



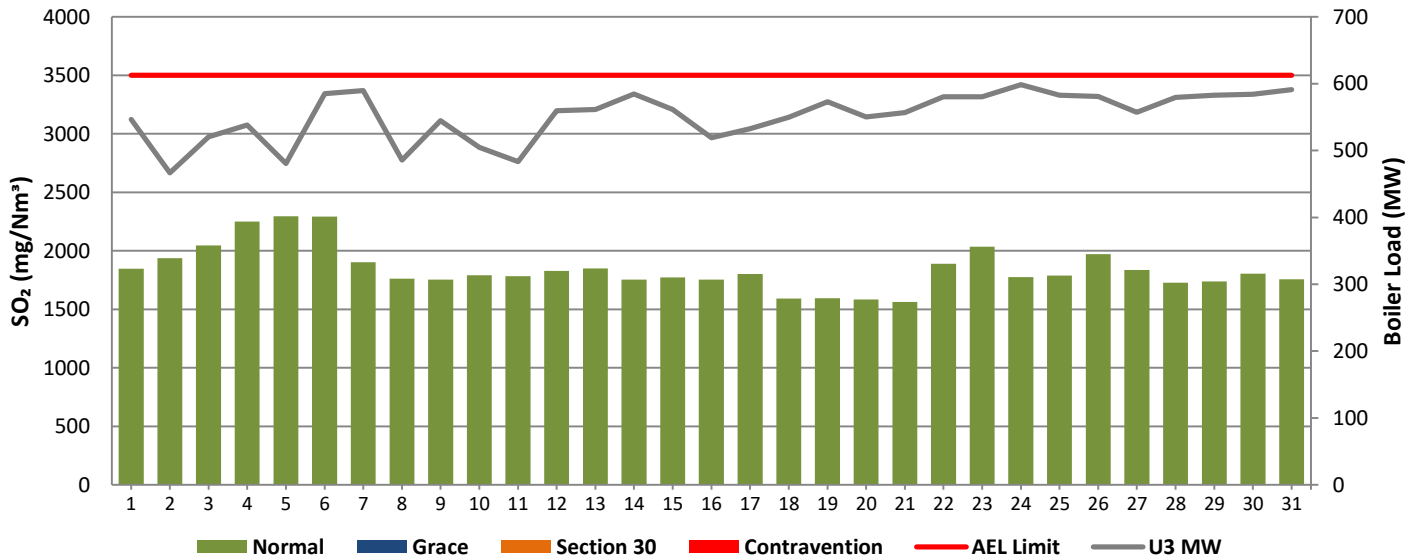
**Figure 7: Lethabo Unit 1 SO<sub>2</sub> Emissions - March 2023**



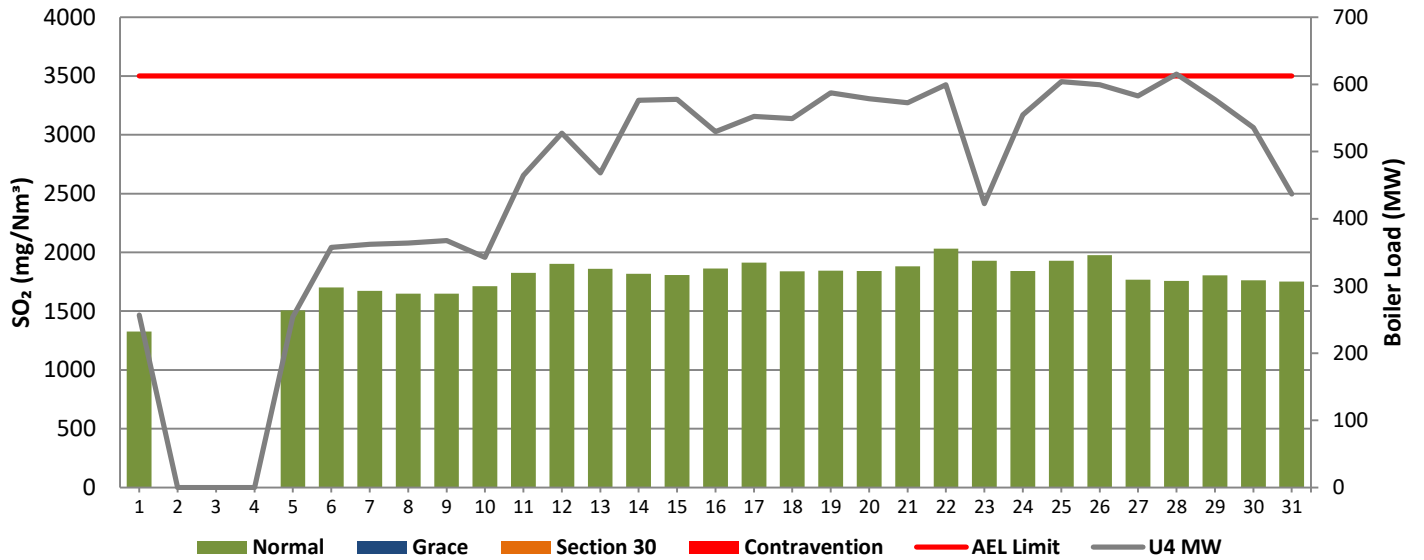
**Figure 8: Lethabo Unit 2 SO<sub>2</sub> Emissions - March 2023**



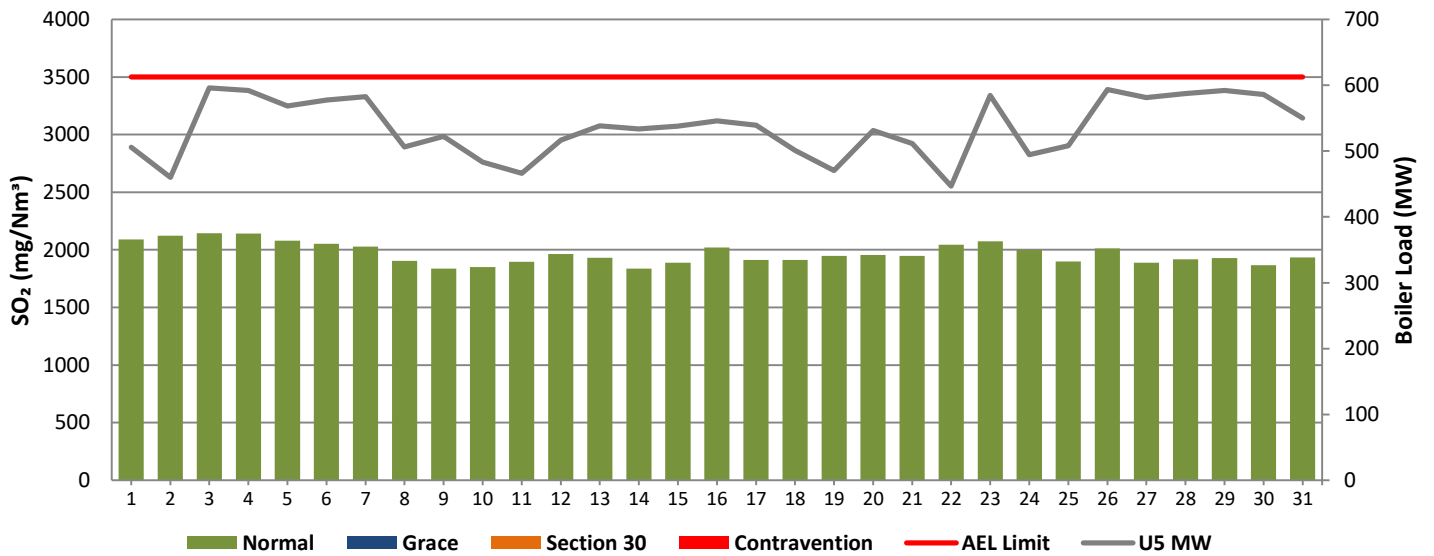
**Figure 9: Lethabo Unit 3 SO<sub>2</sub> Emissions - March 2023**



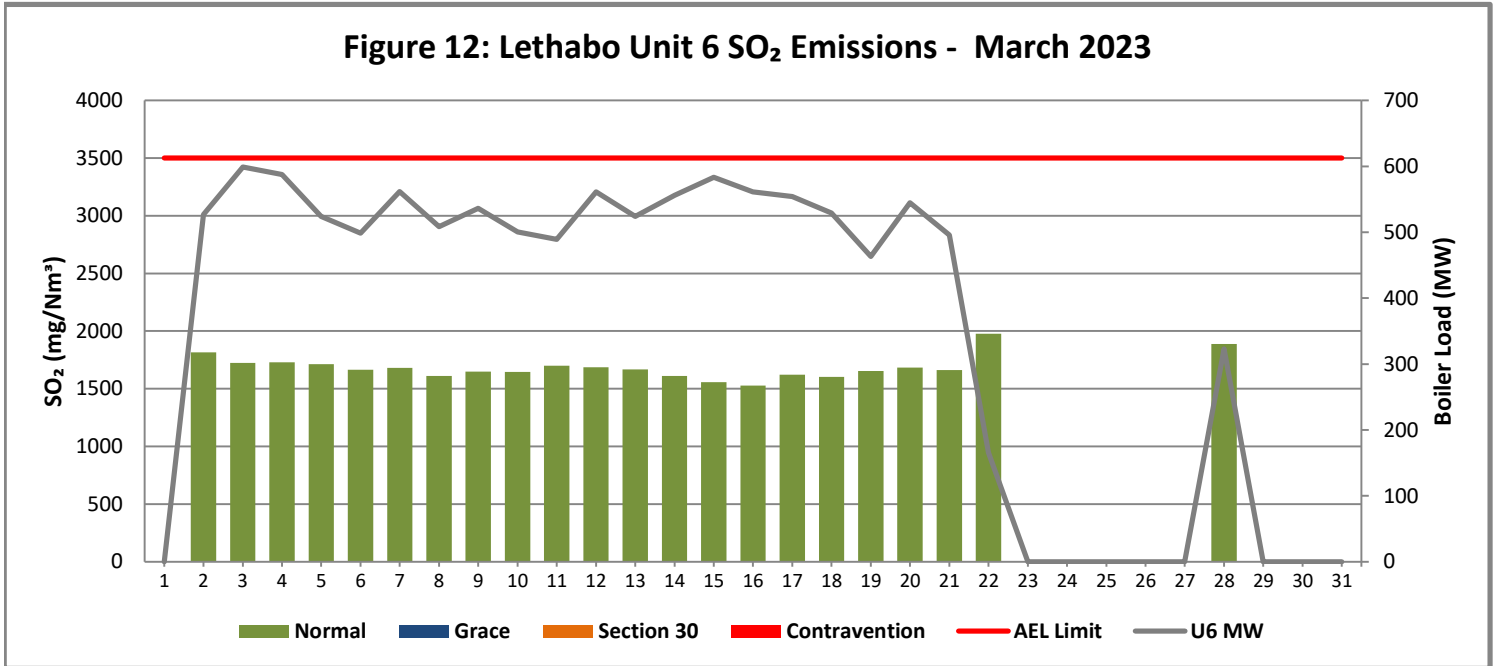
**Figure 10: Lethabo Unit 4 SO<sub>2</sub> Emissions - March 2023**



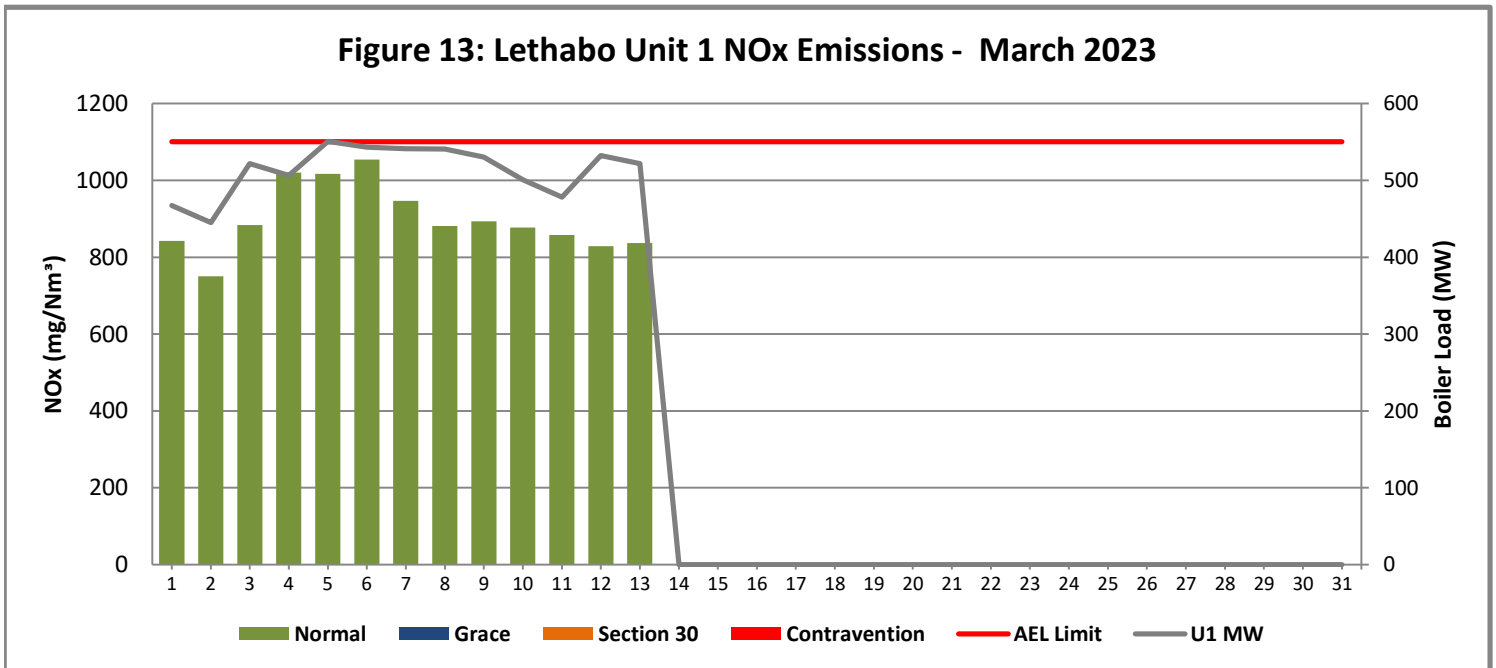
**Figure 11: Lethabo Unit 5 SO<sub>2</sub> Emissions - March 2023**



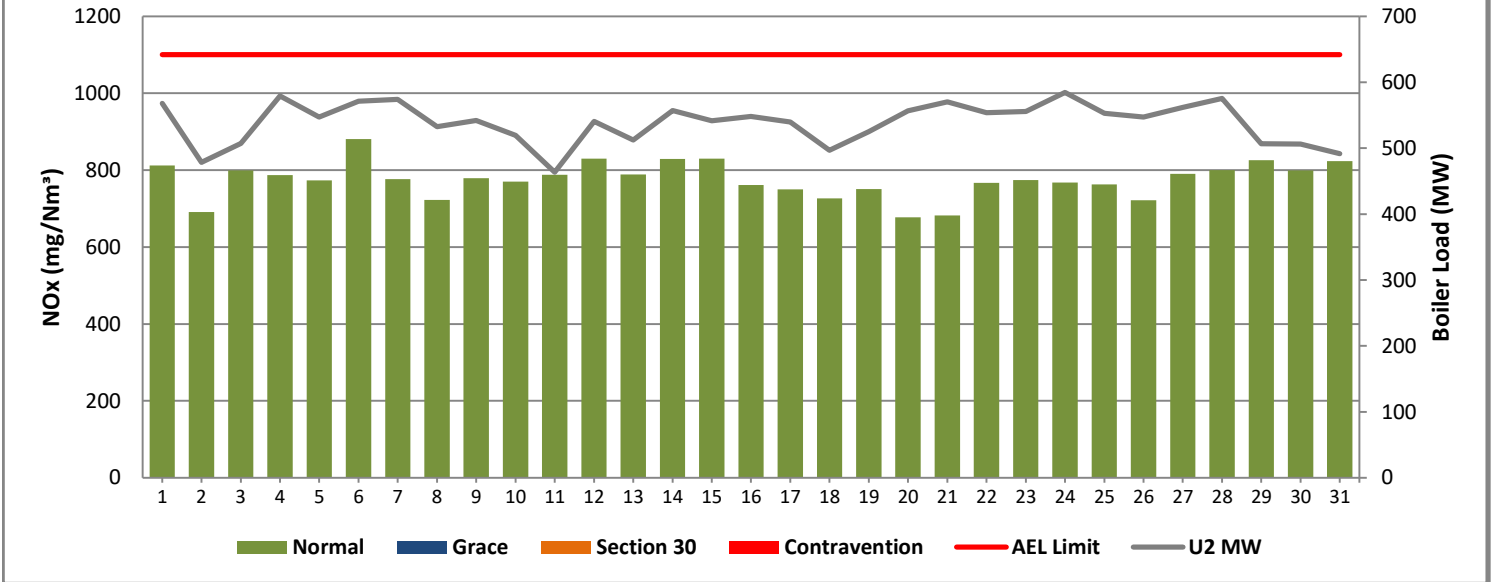
**Figure 12: Lethabo Unit 6 SO<sub>2</sub> Emissions - March 2023**



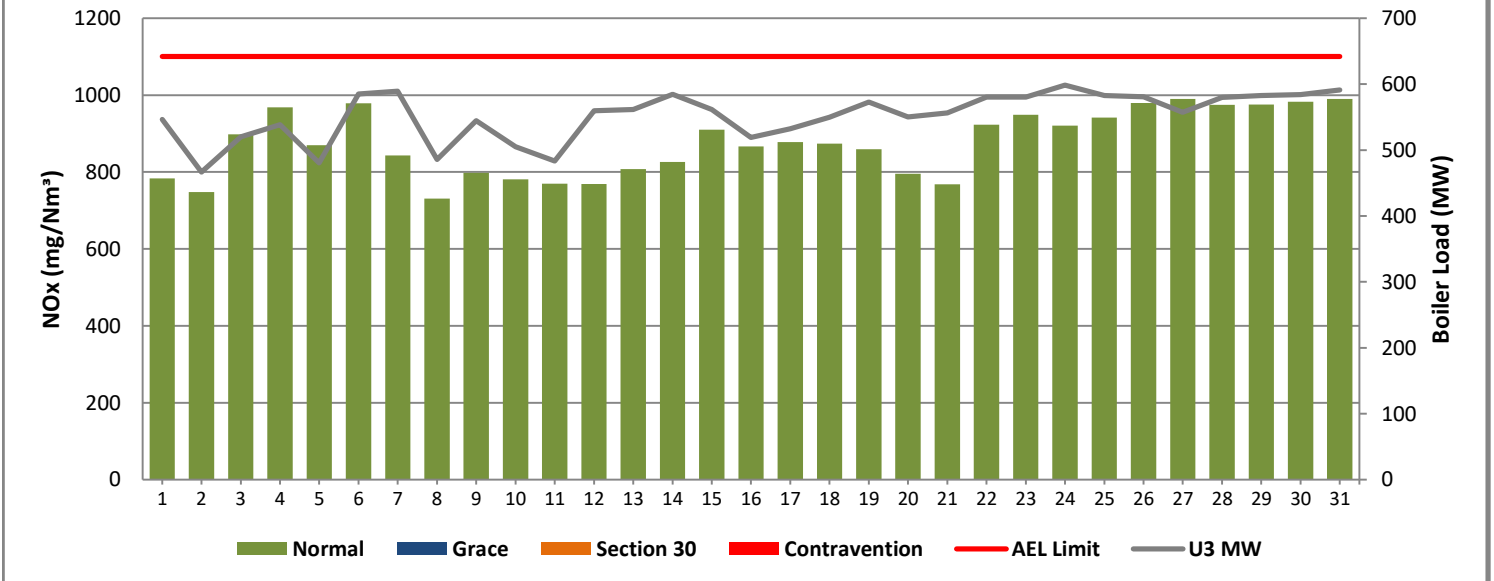
**Figure 13: Lethabo Unit 1 NO<sub>x</sub> Emissions - March 2023**



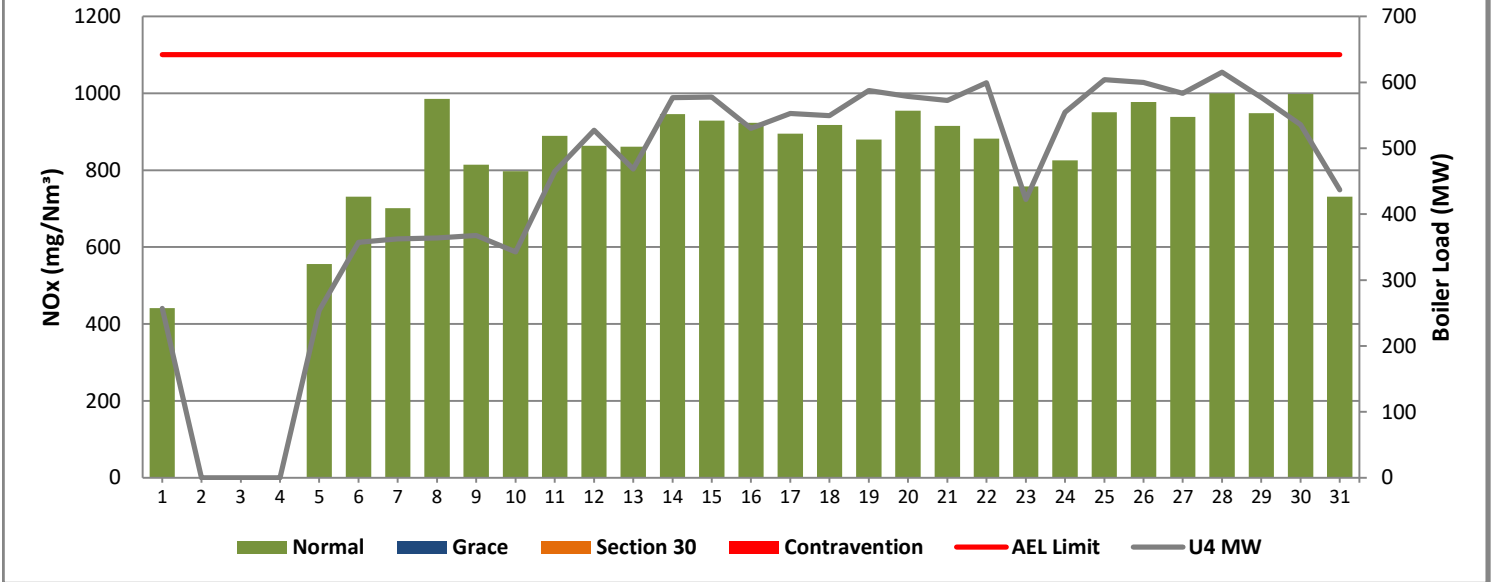
**Figure 14: Lethabo Unit 2 NOx Emissions - March 2023**



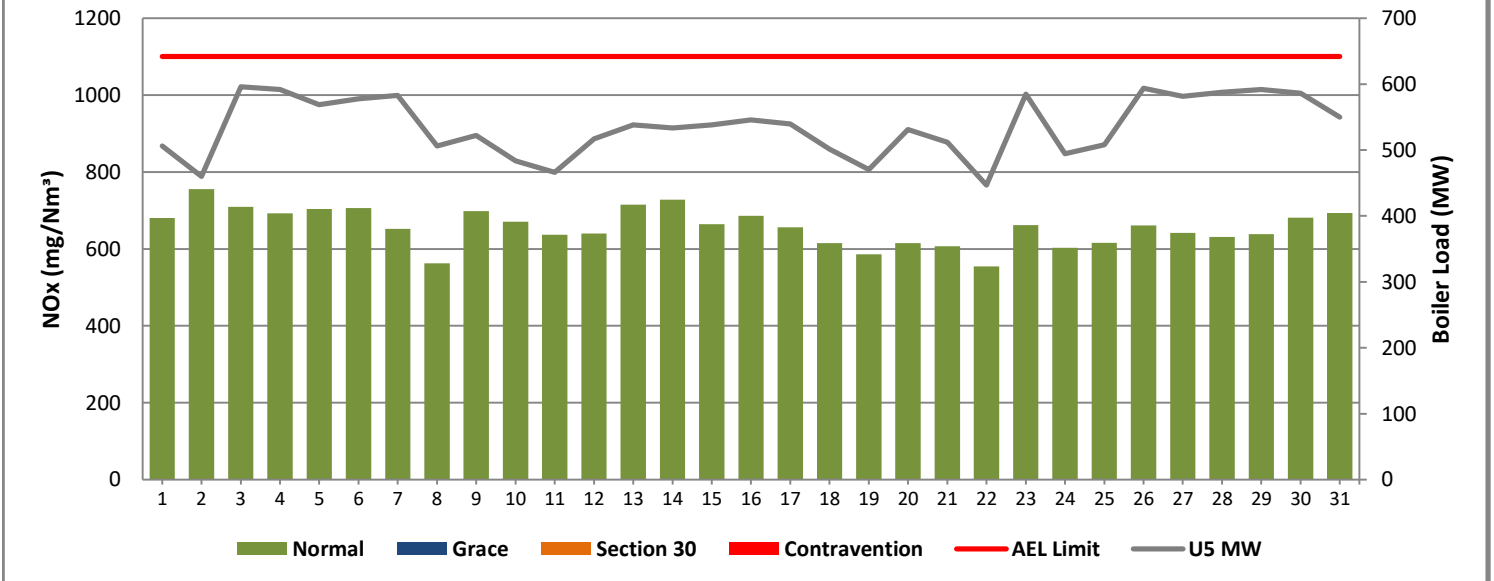
**Figure 15: Lethabo Unit 3 NOx Emissions - March 2023**



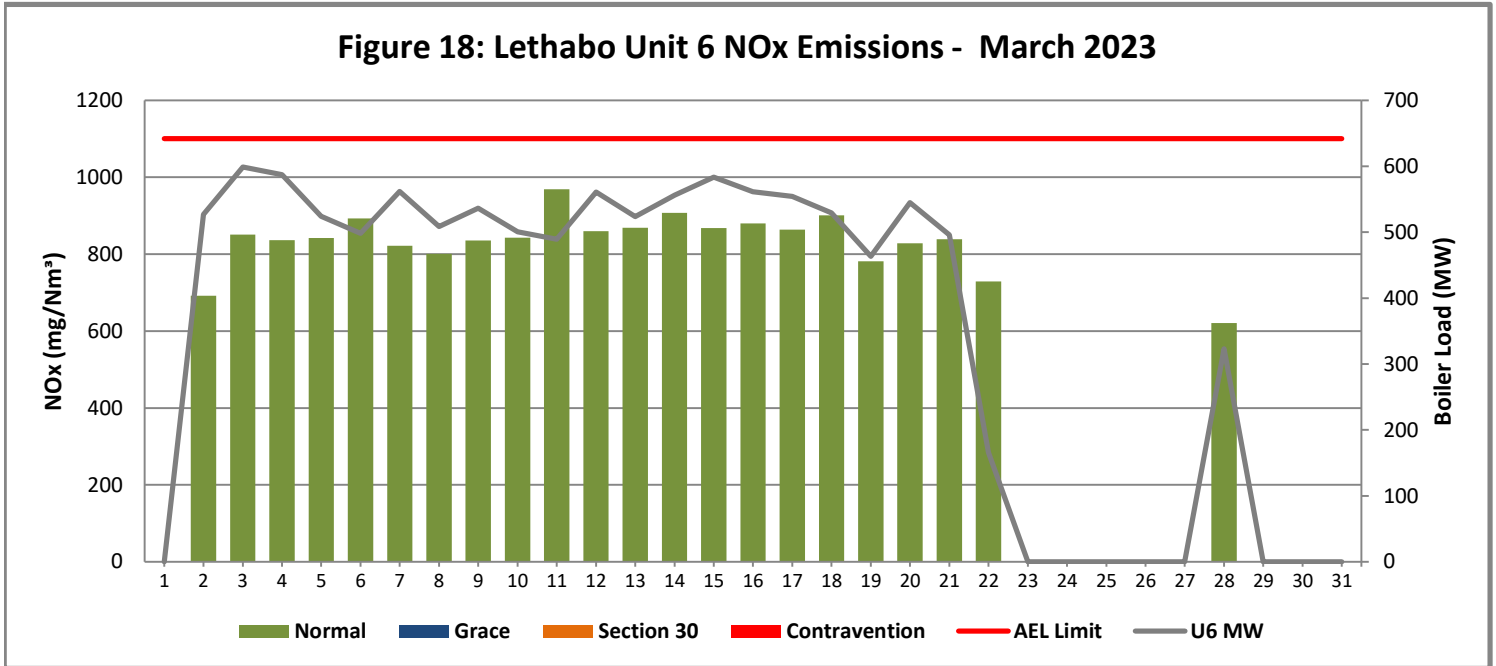
**Figure 16: Lethabo Unit 4 NOx Emissions - March 2023**



**Figure 17: Lethabo Unit 5 NOx Emissions - March 2023**



**Figure 18: Lethabo Unit 6 NOx Emissions - March 2023**



## 7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1: PM Start-up information for the month of March 2023

<b>Unit No.1</b>	<i>Unit trip on stator coolant temp high &amp; Unit off for Interim repairs.</i>						
<b>Breaker Open (BO)</b>	8:12 AM	2023/03/13					
<b>Draught Group (DG) Shut Down (SD)</b>	8:14 AM	2023/03/14					
<b>BO to DG SD (duration)</b>	01:00:02	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Fires in time</b>							
<b>Synch. to Grid (or BC)</b>							
<b>Fires in to BC (duration)</b>		DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>							
<b>Emissions below limit from BC (duration)</b>		DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM

<b>Unit No.2</b>	<i>For Main turbine Physical over speed test &amp; Field switch failing to close</i>						
<b>Breaker Open (BO)</b>	10:52 PM	2023/03/25					
<b>Draught Group (DG) Shut Down (SD)</b>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>					
<b>BO to DG SD (duration)</b>	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Fires in time</b>	1:32 AM	2023/03/26					
<b>Synch. to Grid (or BC)</b>	10:25 AM	2023/03/26					
<b>Fires in to BC (duration)</b>	00:08:53	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>	6:00 AM	2023/03/28					
<b>Emissions below limit from BC (duration)</b>	01:19:35	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM



<b>Unit No.3</b>	<i>Main turbine physical over speed trip test</i>						
<b>Breaker Open (BO)</b>	9:52 PM	2023/03/16					
<b>Draught Group (DG) Shut Down (SD)</b>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>					
<b>BO to DG SD (duration)</b>	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Fires in time</b>							
<b>Synch. to Grid (or BC)</b>							
<b>Fires in to BC (duration)</b>		DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>							
<b>Emissions below limit from BC (duration)</b>		DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM

<b>Unit No.4</b>	<i>Tripped on FRF pump</i>		<i>Boiler tube leak</i>		<i>Tripped due to Main Field Switch auxiliary contact activated more than twice</i>		
<b>Breaker Open (BO)</b>	2:00 AM	2023/03/01	12:02 PM	2023/03/01	11:21 PM	2023/03/30	
<b>Draught Group (DG) Shut Down (SD)</b>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>	1:05 AM	2023/03/02	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>	
<b>BO to DG SD (duration)</b>	<i>n/a</i>	DD:HH:MM	00:13:03	DD:HH:MM	<i>n/a</i>	DD:HH:MM	DD:HH:MM
<b>Fires in time</b>	6:06 AM	2023/03/01	8:00 PM	2023/03/05	5:03 AM	2023/03/31	
<b>Synch. to Grid (or BC)</b>	8:00 AM	2023/03/01	9:00 PM	2023/03/05	6:13 AM	2023/03/31	
<b>Fires in to BC (duration)</b>	00:01:54	DD:HH:MM	00:01:00	DD:HH:MM	00:01:10	DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>	12:00 AM	2023/03/02	2:00 PM	2023/03/07	8:00 PM	2023/04/02	
<b>Emissions below limit from BC (duration)</b>	00:16:00	DD:HH:MM	01:17:00	DD:HH:MM	02:13:47	DD:HH:MM	DD:HH:MM

<b>Unit No.5</b>	<i>Tripped on low drum level</i>						
<b>Breaker Open (BO)</b>	<i>5:18 AM</i>	<i>2023/03/25</i>					
<b>Draught Group (DG) Shut Down (SD)</b>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>					
<b>BO to DG SD (duration)</b>	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Fires in time</b>	<i>10:21 AM</i>	<i>2023/03/25</i>					
<b>Synch. to Grid (or BC)</b>	<i>11:10 AM</i>	<i>2023/03/25</i>					
<b>Fires in to BC (duration)</b>	<i>00:00:49</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>	<i>3:00 AM</i>	<i>2023/03/27</i>					
<b>Emissions below limit from BC (duration)</b>	<i>01:15:50</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM	DD:HH:MM

<b>Unit No.6</b>	<i>Boiler tube leak</i>		<i>Boiler tube leak repairs</i>		<i>Tripped on main turbine exciter fault &amp; Off load due to fire on R/H side ducting</i>		
<b>Breaker Open (BO)</b>			<i>12:03 AM</i>	<i>2023/03/22</i>	<i>6:28 PM</i>	<i>2023/03/28</i>	
<b>Draught Group (DG) Shut Down (SD)</b>			<i>2:12 PM</i>	<i>2023/03/22</i>	<i>8:50 PM</i>	<i>2023/03/28</i>	
<b>BO to DG SD (duration)</b>		DD:HH:MM	<i>00:14:09</i>	DD:HH:MM	<i>00:02:22</i>	DD:HH:MM	DD:HH:MM
<b>Fires in time</b>	<i>10:34 AM</i>	<i>2023/03/02</i>	<i>1:19 PM</i>	<i>2023/03/28</i>			
<b>Synch. to Grid (or BC)</b>	<i>12:24 PM</i>	<i>2023/03/02</i>	<i>2:03 PM</i>	<i>2023/03/28</i>			
<b>Fires in to BC (duration)</b>	<i>00:01:50</i>	DD:HH:MM	<i>00:00:44</i>	DD:HH:MM		DD:HH:MM	DD:HH:MM
<b>Emissions below limit from BC (end date)</b>	<i>9:00 PM</i>	<i>2023/03/06</i>	<i>12:00 AM</i>	<i>2023/03/29</i>			
<b>Emissions below limit from BC (duration)</b>	<i>04:08:36</i>	DD:HH:MM	<i>00:09:57</i>	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 March 2023 in mg/Nm<sup>3</sup>**

## 8. MAINTENANCE

<b>Unit 1</b>				
<b>Beginning of</b>	2023/03/04 00:01			
<b>Reason for Maintenance</b>	LHI Casing Outage			
<b>End (Time):</b>	2023/03/04 20:48			
<b>Duration</b>	20:47:00	0:00:00		

<b>Unit 2</b>				
<b>Beginning of</b>	2023/03/11 00:00:00			
<b>Reason for Maintenance</b>	RHO Casing Outage			
<b>End (Time):</b>	2023/03/11 23:59:00			
<b>Duration</b>	23:59:00			

<b>Unit 3</b>				
<b>Beginning of</b>	2023/03/04 23:48:00			
<b>Reason for Maintenance</b>	RHI Casing Outage			
<b>End (Time):</b>	2023/03/05 23:01:00			
<b>Duration</b>	23:13:00			

<b>Unit 4</b>				
<b>Beginning of</b>				
<b>Reason for Maintenance</b>				
<b>End (Time):</b>				
<b>Duration</b>				

<b>Unit 5</b>				
<b>Beginning of</b>	2023/03/24 01:08:00	2023/03/18 00:00		
<b>Reason for Maintenance</b>	RHO Casing Outage	FOR LHI Hopper repairs		
<b>End (Time):</b>	2023/03/24 23:56:00	2023/03/18 19:54		
<b>Duration</b>	22:48:00	19:54:00		

<b>Unit 6</b>				
<b>Beginning of</b>	2023/03/19 00:00:00			
<b>Reason for Maintenance</b>	LHO precip hopper			
<b>End (Time):</b>	2023/03/20 00:00:00			
<b>Duration</b>	24:00:00			

## 9. GENERAL

### Unit 4 Monitor Reliability

11/03/2023: PM Monitor Reliability low (75%) due to monitors reading maximum

28/03/2023: PM Monitor Reliability Low (79.2%) due to unit light up

05/03/2023-07/03/2023: Monitor Reliability (SO<sub>x</sub>, NO<sub>x</sub>, CO, CO<sub>2</sub> and O<sub>2</sub>) low (0-37.5%) due to unit light up and monitors fault on O<sub>2</sub> and CO<sub>2</sub> reading zero.

10/03/2023: Monitor Reliability (SO<sub>x</sub>, NO<sub>x</sub>, CO, CO<sub>2</sub> and O<sub>2</sub>) low (75%) due to monitors fault on O<sub>2</sub> and CO<sub>2</sub> not reading.

11/03/2023-15/03/2023: Monitor Reliability (CO<sub>2</sub>) low (37.5-70.8%) due to unreliable CO<sub>2</sub> reading removed by the ERT tool.

19/03/2023: Monitor Reliability (CO<sub>2</sub>) low (37.5-70.8%) due to unreliable CO<sub>2</sub> reading removed by the ERT tool.

### Unit 5 Monitor Reliability

06/03/2023: PM Monitor Reliability low (79.2%) due to unit light up

### Unit 6 Monitor Reliability

28/03/2023: Monitor Reliability (CO) low (66.7%) due to unit light up and shut down

### Unit 1 SO<sub>3</sub> plant data:

Note there was no sulphur flow data available from 02/03/2023 11:45 but the SO<sub>3</sub> plant was dosing and available until the Unit was shutdown on the 13/03/2023.

**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
Apr-22	0.60	0.61	0.53	0.45	OFF	0.37	0.51
May-22	0.55	0.59	0.33	0.19	OFF	0.44	0.45
Jun-22	0.55	0.63	0.37	0.77	OFF	0.48	0.56
Jul-22	0.36	0.42	0.42	0.54	0.11	0.33	0.40
Aug-22	0.28	0.41	0.50	0.64	0.27	0.32	0.40
Sep-22	0.40	0.24	0.31	0.80	0.33	0.40	0.42
Oct-22	0.54	0.39	0.44	0.40	0.47	0.44	0.44
Nov-22	0.62	0.39	0.33	0.59	0.59	0.57	0.52
Dec-22	0.58	0.67	0.58	OFF	0.94	0.50	0.65
Jan-23	0.40	0.69	0.59	OFF	0.74	0.45	0.57
Feb-23	0.51	0.48	0.53	OFF	0.83	0.63	0.59
Mar-23	0.51	0.37	0.52	0.54	0.63	0.39	0.50

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

**12. DAILY EMISSIONS FIGURES**

**Final Dust Concentration (mg/Nm<sup>3</sup>)**

Date	U1	U2	U3	U4	U5	U6	Limit
01-Mar	43	125	224	OFF	36	OFF	100
02-Mar	92	57	96	OFF	29	OFF	100
03-Mar	53	61	93	OFF	61	106	100
04-Mar	270	119	142	OFF	76	155	100
05-Mar	73	86	220	OFF	84	91	100
06-Mar	149	227	88	147	230	93	100
07-Mar	85	87	162	78	71	132	100
08-Mar	77	53	111	60	48	55	100
09-Mar	92	65	55	107	73	74	100
10-Mar	54	38	34	90	60	60	100
11-Mar	69	152	33	461	65	63	100
12-Mar	66	57	51	106	85	81	100
13-Mar	121	40	98	64	126	62	100
14-Mar	OFF	241	100	200	225	84	100
15-Mar	OFF	36	51	53	67	67	100
16-Mar	OFF	28	40	121	56	55	100
17-Mar	OFF	27	48	82	228	57	100
18-Mar	OFF	32	64	105	225	68	100
19-Mar	OFF	49	104	50	90	148	100
20-Mar	OFF	44	73	44	276	84	100
21-Mar	OFF	65	71	56	98	79	100
22-Mar	OFF	57	170	76	98	329	100
23-Mar	OFF	46	81	199	156	OFF	100
24-Mar	OFF	49	81	61	127	OFF	100
25-Mar	OFF	44	84	78	318	OFF	100
26-Mar	OFF	OFF	159	96	88	OFF	100
27-Mar	OFF	72	91	124	71	OFF	100
28-Mar	OFF	140	136	348	79	OFF	100
29-Mar	OFF	47	170	175	75	OFF	100
30-Mar	OFF	43	84	66	106	OFF	100
31-Mar	OFF	41	96	OFF	80	OFF	100

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

**Final SOx Concentration (mg/Nm<sup>3</sup>)**

Date	U1	U2	U3	U4	U5	U6	Limit
01-Mar	1560	1690	1846	1327	2089	OFF	3500
02-Mar	1692	1653	1938	OFF	2122	1815	3500
03-Mar	1737	1767	2046	OFF	2143	1725	3500
04-Mar	1941	1852	2251	OFF	2142	1729	3500
05-Mar	1821	1852	2295	1507	2079	1714	3500
06-Mar	1901	1947	2292	1702	2054	1666	3500
07-Mar	1652	1702	1902	1673	2029	1680	3500
08-Mar	1488	1716	1762	1649	1905	1610	3500
09-Mar	1516	1733	1754	1649	1838	1648	3500
10-Mar	1499	1764	1792	1713	1851	1645	3500
11-Mar	1452	1768	1783	1826	1897	1700	3500
12-Mar	1528	1775	1828	1904	1964	1686	3500
13-Mar	1583	1779	1850	1862	1932	1667	3500
14-Mar	OFF	1716	1754	1818	1836	1610	3500
15-Mar	OFF	1803	1772	1807	1889	1557	3500
16-Mar	OFF	1697	1754	1864	2019	1527	3500
17-Mar	OFF	1655	1802	1914	1913	1621	3500
18-Mar	OFF	1565	1593	1839	1912	1603	3500
19-Mar	OFF	1621	1594	1844	1948	1653	3500
20-Mar	OFF	1650	1585	1841	1955	1684	3500
21-Mar	OFF	1614	1563	1882	1948	1661	3500
22-Mar	OFF	1972	1889	2032	2043	1976	3500
23-Mar	OFF	1932	2036	1928	2075	OFF	3500
24-Mar	OFF	1710	1775	1841	1999	OFF	3500
25-Mar	OFF	1691	1787	1929	1900	OFF	3500
26-Mar	OFF	1948	1971	1978	2012	OFF	3500
27-Mar	OFF	1803	1835	1769	1887	OFF	3500
28-Mar	OFF	1696	1727	1757	1918	1888	3500
29-Mar	OFF	1797	1739	1806	1928	OFF	3500
30-Mar	OFF	1755	1804	1762	1868	OFF	3500
31-Mar	OFF	1725	1756	1751	1933	OFF	3500

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

**Final NOx Concentration (mg/Nm<sup>3</sup>)**

Date	U1	U2	U3	U4	U5	U6	Limit
01-Mar	843	812	783	441	680	OFF	1100
02-Mar	750	691	748	OFF	756	692	1100
03-Mar	883	799	898	OFF	709	851	1100
04-Mar	1020	787	968	OFF	692	837	1100
05-Mar	1017	774	870	556	704	842	1100
06-Mar	1054	881	979	731	706	893	1100
07-Mar	946	777	843	701	652	822	1100
08-Mar	881	723	731	985	563	801	1100
09-Mar	893	780	798	814	698	835	1100
10-Mar	877	770	781	797	671	843	1100
11-Mar	858	788	769	890	637	969	1100
12-Mar	828	830	769	864	640	860	1100
13-Mar	837	789	808	861	715	869	1100
14-Mar	OFF	829	826	945	728	907	1100
15-Mar	OFF	830	910	929	664	868	1100
16-Mar	OFF	762	866	923	686	880	1100
17-Mar	OFF	750	878	895	656	864	1100
18-Mar	OFF	727	874	918	615	901	1100
19-Mar	OFF	751	859	879	586	781	1100
20-Mar	OFF	678	796	954	615	828	1100
21-Mar	OFF	683	768	915	607	839	1100
22-Mar	OFF	767	923	882	555	729	1100
23-Mar	OFF	774	949	758	662	OFF	1100
24-Mar	OFF	768	920	826	603	OFF	1100
25-Mar	OFF	763	942	951	616	OFF	1100
26-Mar	OFF	722	980	977	661	OFF	1100
27-Mar	OFF	790	990	938	642	OFF	1100
28-Mar	OFF	800	975	1000	631	621	1100
29-Mar	OFF	826	976	948	638	OFF	1100
30-Mar	OFF	799	983	998	681	OFF	1100
31-Mar	OFF	823	990	731	694	OFF	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
Apr-22	100.00%	0.0	98.63%	1.6	100.00%	0.0	98.46%	1.9	OFF	OFF	100.00%	0.0
May-22	98.73%	1.6	98.13%	2.3	100.00%	0.0	100.00%	0.0	OFF	OFF	100.00%	0.0
Jun-22	98.33%	2.0	99.05%	1.1	100.00%	0.0	100.00%	0.0	OFF	OFF	97.53%	3.0
Jul-22	99.37%	0.8	98.80%	1.5	100.00%	0.0	97.23%	3.4	100.00%	0.0	100.00%	0.0
Aug-22	99.42%	0.7	98.67%	1.6	100.00%	0.0	99.32%	0.8	100.00%	0.0	100.00%	0.0
Sep-22	98.86%	1.4	100.00%	0.0	100.00%	0.0	99.27%	0.9	98.44%	1.9	99.20%	1.0
Oct-22	98.80%	1.5	98.86%	1.4	100.00%	0.0	100.00%	0.0	99.24%	0.9	100.00%	0.0
Nov-22	99.29%	0.9	100.00%	0.0	100.00%	0.0	100.00%	0.0	98.86%	1.4	98.56%	1.7
Dec-22	99.29%	0.9	98.58%	1.8	98.66%	1.7	OFF	OFF	99.36%	0.8	98.46%	1.9
Jan-23	98.91%	1.3	99.90%	0.1	97.59%	3.0	OFF	OFF	99.23%	1.0	98.42%	2.0
Feb-23	99.19%	0.9	100.00%	0.0	96.88%	3.5	OFF	OFF	100.00%	0.0	99.16%	0.9
Mar-23	99.30%	0.9	99.19%	1.0	99.22%	1.0	100.00%	0.0	98.57%	1.8	99.19%	1.0

SO<sub>3</sub> 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
Apr-22	99.72%	0.1	100.00%	0.0	95.69%	1.3	98.33%	0.5	OFF	OFF	100.00%	0.0
May-22	98.66%	0.4	100.00%	0.0	97.45%	0.8	98.92%	0.3	OFF	OFF	96.51%	1.1
Jun-22	97.78%	0.7	96.25%	1.1	98.19%	0.5	46.67%	16.0	OFF	OFF	98.06%	0.6
Jul-22	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	86.67%	4.0	98.61%	0.4
Aug-22	98.52%	0.5	100.00%	0.0	96.51%	1.1	65.19%	10.8	99.33%	0.2	100.00%	0.0
Sep-22	100.00%	0.0	99.58%	0.1	100.00%	0.0	94.27%	1.7	97.92%	0.6	100.00%	0.0
Oct-22	89.39%	3.3	100.00%	0.0	82.41%	5.5	99.73%	0.1	79.69%	6.3	100.00%	0.0
Nov-22	100.00%	0.0	100.00%	0.0	97.21%	0.8	88.86%	3.3	100.00%	0.0	100.00%	0.0
Dec-22	85.12%	4.6	98.28%	0.5	99.88%	0.0	OFF	OFF	62.90%	11.5	100.00%	0.0
Jan-23	90.05%	3.1	93.82%	1.9	100.00%	0.0	OFF	OFF	91.52%	2.6	100.00%	0.0
Feb-23	89.39%	3.0	100.00%	0.0	82.41%	4.9	OFF	OFF	79.69%	5.7	100.00%	0.0
Mar-23	100.00%	0.0	98.89%	0.3	95.16%	1.5	95.50%	1.4	99.33%	0.2	95.00%	1.6

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

Particulate Emission Monitors

Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Apr-22	96.20%	94.58%	98.99%	99.57%	OFF	100.00%
May-22	97.32%	99.06%	99.65%	99.72%	OFF	100.00%
Jun-22	90.56%	97.50%	97.33%	98.56%	OFF	98.71%
Jul-22	98.92%	98.75%	100.00%	91.10%	100.00%	97.54%
Aug-22	99.85%	96.77%	100.00%	96.24%	98.61%	100.00%
Sep-22	98.69%	100.00%	92.89%	96.01%	99.31%	99.17%
Oct-22	96.61%	97.27%	99.38%	100.00%	95.14%	98.66%
Nov-22	94.72%	95.66%	97.08%	98.85%	98.92%	97.64%
Dec-22	99.09%	93.78%	98.73%	OFF	67.20%	98.66%
Jan-23	99.46%	90.07%	98.79%	OFF	96.28%	98.39%
Feb-23	99.11%	96.87%	98.72%	OFF	93.83%	96.29%
Mar-23	99.68%	98.75%	99.06%	97.17%	97.33%	99.12%

## Gaseous Emission Monitors

Availability												
	Unit 1		Unit 2		Unit 3		Unit 4		Unit 5		Unit 6	
Month	SO <sub>x</sub>	NO <sub>x</sub>	SO <sub>x</sub>	NO <sub>x</sub>	SO <sub>x</sub>	NO <sub>x</sub>	SO <sub>x</sub>	NO <sub>x</sub>	SO <sub>x</sub>	NO <sub>x</sub>	SO <sub>x</sub>	NO <sub>x</sub>
Apr-22	99.31%	99.31%	99.58%	99.86%	100.00%	99.86%	99.44%	99.86%	OFF	OFF	100.00%	100.00%
May-22	99.71%	99.86%	99.60%	99.60%	99.83%	99.83%	90.93%	91.16%	OFF	OFF	99.83%	99.83%
Jun-22	99.86%	99.86%	99.86%	99.86%	100.00%	100.00%	98.92%	99.07%	OFF	OFF	98.89%	99.17%
Jul-22	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.87%	100.00%	100.00%	100.00%	98.96%	98.81%
Aug-22	100.00%	100.00%	100.00%	100.00%	99.83%	99.83%	99.87%	99.73%	99.70%	99.57%	99.60%	99.73%
Sep-22	100.00%	100.00%	100.00%	100.00%	99.62%	100.00%	93.83%	93.83%	94.86%	94.86%	94.86%	94.86%
Oct-22	98.95%	78.72%	99.87%	100.00%	99.86%	99.86%	100.00%	100.00%	99.86%	99.86%	99.87%	99.87%
Nov-22	99.86%	99.86%	99.72%	99.86%	99.81%	99.81%	100.00%	100.00%	99.72%	99.72%	99.44%	99.44%
Dec-22	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OFF	OFF	100.00%	99.87%	99.87%	100.00%
Jan-23	97.85%	97.85%	99.69%	99.69%	100.00%	100.00%	OFF	OFF	99.85%	99.85%	99.60%	99.60%
Feb-23	99.85%	99.85%	100.00%	100.00%	100.00%	100.00%	OFF	OFF	100.00%	99.28%	100.00%	100.00%
Mar-23	100.00%	100.00%	100.00%	100.00%	99.87%	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
Apr-22	99.13%	100.00%	100.00%	81.67%	OFF	99.72%
May-22	100.00%	99.73%	99.83%	99.75%	OFF	99.83%
Jun-22	99.72%	97.22%	99.52%	98.77%	OFF	98.75%
Jul-22	99.87%	99.87%	99.46%	99.87%	100.00%	98.96%
Aug-22	99.73%	99.60%	99.67%	99.73%	99.40%	99.60%
Sep-22	99.72%	99.71%	99.62%	93.67%	94.72%	94.44%
Oct-22	99.27%	99.87%	99.57%	99.73%	99.72%	99.60%
Nov-22	99.72%	99.72%	99.62%	98.82%	99.44%	99.58%
Dec-22	99.65%	99.72%	99.72%	OFF	99.87%	99.87%
Jan-23	97.45%	99.04%	99.87%	OFF	99.70%	99.73%
Feb-23	100.00%	100.00%	100.00%	OFF	99.51%	100.00%
Mar-23	100.00%	100.00%	100.00%	86.16%	99.87%	99.81%

### ADDENDUM TO MONTHLY EMISSIONS REPORT

#### 14. EFFICIENCY

ESP Efficiency (%)						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Apr-22	99.778%	99.748%	99.786%	99.822%	OFF	99.842%
May-22	99.672%	99.488%	99.880%	99.961%	OFF	99.844%
Jun-22	99.769%	99.712%	99.833%	99.657%	OFF	99.778%
Jul-22	99.857%	99.812%	99.818%	99.768%	99.955%	99.850%
Aug-22	99.881%	99.804%	99.768%	99.708%	99.873%	99.846%
Sep-22	99.834%	99.888%	99.868%	99.660%	99.857%	99.815%
Oct-22	99.772%	99.814%	99.807%	99.826%	99.795%	99.796%
Nov-22	99.761%	99.828%	99.859%	99.769%	99.752%	99.756%
Dec-22	99.788%	99.724%	99.768%	OFF	99.637%	99.799%
Jan-23	99.848%	99.709%	99.766%	OFF	99.702%	99.813%
Feb-23	99.808%	99.800%	99.785%	OFF	99.669%	99.733%
Mar-23	99.797%	99.858%	99.780%	99.780%	99.745%	99.831%

15. REMARKS

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
1	150	High stack emissions	2023/03/01 00:00:00	2023/03/01 08:03:00
1	50	EF: High stack emissions	2023/03/01 08:03:00	2023/03/02 03:00:00
1	150	EF: High stack emissions	2023/03/02 08:29:00	2023/03/03 04:50:00
1	50	AM: LHI Precip casing repairs	2023/03/04 00:01:00	2023/03/04 20:48:00
1	50	High stack emissions	2023/03/06 20:26:00	2023/03/06 23:52:00
1	50	High stack emissions	2023/03/07 00:05:00	2023/03/07 04:35:00
1	50	EF: Coal constrains	2023/03/08 10:50:00	2023/03/08 15:35:00
1	57	EF: Coal supply constrains	2023/03/09 12:58:00	2023/03/09 15:17:00
1	147	Coal constrains.	2023/03/09 21:53:00	2023/03/10 04:32:00
1	50	EF: Coal constrains	2023/03/10 12:28:00	2023/03/10 16:35:00
1	147	EF: Coal constrains	2023/03/10 22:16:00	2023/03/11 04:04:00
1	151	Coal constraints.	2023/03/11 11:32:00	2023/03/11 15:49:00
1	150	EF: Coal constrains	2023/03/11 20:31:00	2023/03/11 23:18:00
1	100	EF: Coal constrains	2023/03/11 23:18:00	2023/03/12 04:37:00
1	593	Unit trip on stator coolant temp. high.	2023/03/13 08:12:00	2023/03/13 09:45:00
1	593	Interim repairs	2023/03/13 09:45:00	2023/03/31 23:59:59
2	79	Emission tests	2023/03/02 00:18:00	2023/03/02 05:00:00
2	98	AM: Emission tests	2023/03/02 20:53:00	2023/03/03 04:57:00
2	148	EF: High stack emissions	2023/03/05 00:54:00	2023/03/05 04:26:00
2	92	High stack emissions	2023/03/05 23:02:00	2023/03/06 00:20:00
2	96	High stack emissions	2023/03/06 20:28:00	2023/03/07 04:40:00
2	98	coal constrains	2023/03/08 02:11:00	2023/03/08 15:38:00
2	100	Coal constrains	2023/03/08 22:26:00	2023/03/09 04:47:00
2	197	EF: Coal supply constrains	2023/03/09 13:36:00	2023/03/09 15:42:00
2	150	Coal constrains.	2023/03/09 21:54:00	2023/03/10 04:45:00
2	197	EF: Coal constrains	2023/03/10 12:46:00	2023/03/10 16:29:00
2	148	EF: Coal constrains	2023/03/10 22:08:00	2023/03/11 00:00:00
2	100	RHO Precip Casing repairs	2023/03/11 00:00:00	2023/03/11 03:57:00
2	48	Coal constrains	2023/03/11 00:00:00	2023/03/11 03:57:00
2	101	RHO Precip Casing repairs	2023/03/11 03:57:00	2023/03/11 23:59:00
2	72	Coal constraints.	2023/03/11 11:15:00	2023/03/11 15:52:00
2	97	EF: Coal constrains	2023/03/11 20:12:00	2023/03/11 23:15:00
2	42	EF: Coal constrain	2023/03/11 23:15:00	2023/03/12 04:23:00
2	178	Clean rapping.	2023/03/14 20:34:00	2023/03/14 23:45:00
2	100	for B ,E & F Mill bottom coal gate passing	2023/03/18 00:00:00	2023/03/18 17:39:00
2	97	B-mill bottom coal gate repairs.	2023/03/19 09:18:00	2023/03/19 16:51:00
2	184	Clean rapping	2023/03/21 21:29:00	2023/03/21 23:17:00
2	593	For Main turbine Physical over speed test .	2023/03/25 22:52:00	2023/03/26 05:00:00
2	593	Field switch failing to close	2023/03/26 05:00:00	2023/03/26 10:25:00
2	297	System Generated Ramp Event for Event id : 1799865 First Outage	2023/03/26 10:25:00	2023/03/26 11:55:00
2	296	System Generated Ramp Event for Event id : 1799927	2023/03/26 11:55:00	2023/03/26 12:55:00
2	93	AM: manual rapping	2023/03/28 21:56:00	2023/03/28 23:22:00
3	103	AM: Manual rapping	2023/03/01 20:20:00	2023/03/02 04:37:00
3	53	A mill feeders no coal on belt.	2023/03/02 04:37:00	2023/03/02 05:17:00
3	103	EF: High stack emissions	2023/03/02 09:38:00	2023/03/03 07:00:00
3	100	AM: RHI Precip. casing maintenance.	2023/03/04 23:48:00	2023/03/05 23:01:00
3	49	EF: High stack emissions	2023/03/05 00:54:00	2023/03/05 04:59:00
3	95	coal constrains	2023/03/08 02:09:00	2023/03/08 20:42:00
3	102	EF: High stack emissions due to	2023/03/08 09:36:00	2023/03/08 17:37:00
3	98	Coal constrains	2023/03/08 22:52:00	2023/03/09 05:00:00
3	199	EF: Coal supply constrains	2023/03/09 13:51:00	2023/03/09 16:05:00
3	196	Coal constrains.	2023/03/09 22:13:00	2023/03/10 05:17:00
3	195	EF: Coal constrains	2023/03/10 13:00:00	2023/03/10 16:24:00
3	198	EF: Coal constrains	2023/03/10 21:59:00	2023/03/11 04:18:00
3	100	EF: Coal constrains	2023/03/11 04:18:00	2023/03/11 07:19:00
3	199	Coal constraints.	2023/03/11 11:27:00	2023/03/11 15:52:00

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
3	200	EF: Coal constrains	2023/03/11 20:40:00	2023/03/11 23:29:00
3	150	EF: Coal constrain	2023/03/11 23:29:00	2023/03/12 04:17:00
3	90	EF: Emission test	2023/03/15 21:34:00	2023/03/16 05:42:00
3	593	Main turbine physical over speed trip test	2023/03/16 21:52:00	2023/03/16 23:18:00
3	297	System Generated Ramp Event for Event id : 1797178	2023/03/16 23:18:00	2023/03/17 00:48:00
3	150	EF: Emissions test	2023/03/20 21:34:00	2023/03/21 05:16:00
3	95	Manual clean rapping	2023/03/22 20:59:00	2023/03/23 00:00:00
3	95	High stack emissions.	2023/03/23 00:00:00	2023/03/23 03:52:00
3	95	for manual rapping.	2023/03/26 21:16:00	2023/03/26 22:47:00
3	100	EF: High stack emissions	2023/03/27 19:19:00	2023/03/28 00:02:00
3	100	AM: Manual rapping	2023/03/28 22:04:00	2023/03/28 23:22:00
3	46	for manual rapping.	2023/03/29 20:50:00	2023/03/30 01:38:00
3	45	EF: High stack emissions	2023/03/31 20:22:00	2023/03/31 23:59:59
4	296	System Generated Ramp Event for Event id : 1791597	2023/03/01 00:00:00	2023/03/01 01:00:00
4	593	Tripped on FRF pump	2023/03/01 02:00:00	2023/03/01 08:00:00
4	297	System Generated Ramp Event for Event id : 1791758	2023/03/01 08:00:00	2023/03/01 09:30:00
4	593	Boiler tube leak	2023/03/01 12:02:00	2023/03/05 21:00:00
4	297	System Generated Ramp Event for Event id : 1791914	2023/03/05 21:00:00	2023/03/06 00:00:00
4	103	AM: Coal feeders blocked.	2023/03/09 23:37:00	2023/03/10 15:35:00
4	91	Coal constraints	2023/03/11 11:07:00	2023/03/11 16:46:00
4	219	EF: Manual rapping	2023/03/16 20:38:00	2023/03/16 21:59:00
4	116	High stack emissions.	2023/03/26 20:21:00	2023/03/26 23:53:00
4	216	Emissions test	2023/03/29 21:27:00	2023/03/30 05:07:00
4	593	Unit 4 Tripped, Main Field Switch auxiliary contact activated more than twice,	2023/03/30 23:21:00	2023/03/31 06:13:00
4	297	System Generated Ramp Event for Event id : 1801514	2023/03/31 06:13:00	2023/03/31 07:43:00
5	86	High stack emissions	2023/03/06 20:25:00	2023/03/07 04:43:00
5	96	coal constrains	2023/03/08 02:20:00	2023/03/08 10:50:00
5	145	EF: Coal constrains	2023/03/08 10:50:00	2023/03/08 19:41:00
5	88	Coal constrains	2023/03/08 22:31:00	2023/03/09 04:42:00
5	139	EF: Coal supply constrains	2023/03/09 13:53:00	2023/03/09 15:41:00
5	48	Coal constrains.	2023/03/09 21:27:00	2023/03/10 04:19:00
5	186	EF: Coal constrains	2023/03/10 12:26:00	2023/03/10 15:53:00
5	50	Coal constrains	2023/03/10 21:34:00	2023/03/11 04:10:00
5	97	Coal constraints	2023/03/11 11:08:00	2023/03/11 15:47:00
5	49	EF: Coal constrains	2023/03/11 20:05:00	2023/03/11 23:14:00
5	171	Manual clean rapping.	2023/03/14 20:56:00	2023/03/15 00:03:00
5	170	Emission test	2023/03/15 00:03:00	2023/03/15 05:35:00
5	89	FOR LHI Hopper repairs	2023/03/18 00:00:00	2023/03/18 19:54:00
5	89	High stack emissions.	2023/03/19 09:12:00	2023/03/19 14:24:00
5	189	High stack emissions.	2023/03/19 14:24:00	2023/03/20 00:57:00
5	197	EF: Manual rapping	2023/03/20 20:03:00	2023/03/20 22:00:00
5	196	EF: High stack emissions	2023/03/20 22:00:00	2023/03/21 02:03:00
5	99	High stack emissions.	2023/03/21 09:31:00	2023/03/21 17:01:00
5	196	High stack emissions	2023/03/21 20:03:00	2023/03/22 00:15:00
5	100	High stack emissions.	2023/03/22 11:30:00	2023/03/23 00:36:00
5	96	High stack emissions	2023/03/23 01:37:00	2023/03/23 03:51:00
5	96	RHO precip casing repairs.	2023/03/24 01:08:00	2023/03/24 03:36:00
5	100	RHO precip casing repairs	2023/03/24 03:36:00	2023/03/24 23:56:00
5	197	EMISSIONS TEST	2023/03/24 23:56:00	2023/03/25 04:58:00
5	100	Emissions test.	2023/03/25 04:56:00	2023/03/25 05:18:00
5	593	Tripped on low drum level	2023/03/25 05:18:00	2023/03/25 11:10:00
5	297	System Generated Ramp Event for Event id : 1799638	2023/03/25 11:10:00	2023/03/25 12:40:00
5	200	High stack emissions.	2023/03/30 22:30:00	2023/03/31 00:39:00
6	593	Boiler tube leak	2023/03/01 00:00:00	2023/03/02 12:24:00
6	297	System Generated Ramp Event for Event id : 1791563	2023/03/02 12:24:00	2023/03/02 15:24:00
6	218	EF: High stack emissions.	2023/03/05 00:35:00	2023/03/05 05:33:00
6	118	High stack emissions	2023/03/05 19:37:00	2023/03/06 00:32:00

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
6	84	High stack emissions	2023/03/06 08:59:00	2023/03/06 12:32:00
6	134	High stack emissions.	2023/03/06 12:32:00	2023/03/07 00:33:00
6	118	High stack emissions	2023/03/07 00:33:00	2023/03/07 03:07:00
6	118	Manual rapping	2023/03/07 21:04:00	2023/03/07 23:49:00
6	117	coal constrains	2023/03/08 02:09:00	2023/03/08 14:13:00
6	216	EF: Coal constraints.	2023/03/08 14:13:00	2023/03/08 16:10:00
6	120	EF: Coal constraints.	2023/03/08 16:10:00	2023/03/08 18:03:00
6	118	Coal constrains	2023/03/08 22:40:00	2023/03/09 04:54:00
6	216	EF: Coal supply problems	2023/03/09 13:21:00	2023/03/09 15:20:00
6	179	Coal constrains.	2023/03/09 22:55:00	2023/03/10 05:22:00
6	180	EF: Coal constrains	2023/03/10 12:40:00	2023/03/10 16:27:00
6	177	EF: Coal constrains	2023/03/10 21:36:00	2023/03/11 04:20:00
6	176	Coal constraints	2023/03/11 11:15:00	2023/03/11 15:49:00
6	178	EF: Coal constrains	2023/03/11 20:13:00	2023/03/11 23:15:00
6	78	EF: Coal constrain	2023/03/11 23:15:00	2023/03/12 04:30:00
6	118	LHO precip hopper repairs.	2023/03/19 00:00:00	2023/03/20 00:00:00
6	593	Boiler tube leak repairs	2023/03/22 00:03:00	2023/03/28 14:03:00
6	297	System Generated Ramp Event for Event id : 1798713	2023/03/28 14:03:00	2023/03/28 17:03:00
6	593	Tripped on main turbine exciter fault	2023/03/28 18:28:00	2023/03/28 23:56:00
6	593	Off load due to fire on R/H side ducting	2023/03/28 23:56:00	2023/03/31 23:59:59

PM Exceedances		
U1.	LHI casing outage	04-Mar
U1.	Emissions test done @500 MW (09h00 to 17h00). Manual rapping done.	06-Mar
U1.	Unit Shut Down for Outage	13-Mar
U2.	Emissions test and RHO casing poor performance (2 x fields off)	01-Mar
U2.	Poor casing performance	04-Mar
U2.	Manual rapping carried out. RHO casing poor performance	06-Mar
U2.	RHO Casing Outage	11-Mar
U2.	ESP Poor Performance High Hopper Levels Manual Rapping	14-Mar
U2.	ESP poor performance Manual Rapping	28-Mar
U3.	ESP poor performance Clean rapping brought forward	01-Mar
U3.	RHI casing poor performance	04-Mar
U3.	RHI casing taken out for repairs	05-Mar
U3.	High hopper levels SO3 plant tripped	07-Mar
U3.	SO3 plant off due to trip & blower fault.	08-Mar
U3.	ESP poor performance	19-Mar
U3.	Manual Rapping Poor ESP Performance	22-Mar
U3.	ESP Poor performance Manual Rapping One high hopper level	26-Mar
U3.	ESP poor Performance Manual rapping	28-Mar
U3.	ESP Poor Performance Manual Rapping	29-Mar
U4.	Unit 4 synchronized on 2023/03/05 @ 21:00, emissions to be below the limit by 2023/03/08 @ 21:00 and remain below the limit on the 2023/03/09 @ 23:59	06-Mar
U4.	Sulphur dosing on manual, failed to increase with the load.	09-Mar
U4.	ESP Poor Performance & SO3 plant ppm that had to be changed when the unit load was increased and Howden had to be called out to stabilise the flow.	11-Mar
U4.	ESP Poor Performance & SO3 plant ppm that had to be changed when the unit load was increased and Howden had to be called out to stabilise the flow.	12-Mar
U4.	SO3 plant tripped and ESP Poor Performance	14-Mar
U4.	ESP Poor Performance	18-Mar
U4.	Manual Rapping ESP Poor Performance	23-Mar
U4.	High Emission Correlation tests were done (SO3 plant off)	27-Mar
U4.	High Emission Correlation tests were done (3 ESP fields off)	28-Mar
U4.	ESP Poor Performance Manual Rapping	29-Mar
U4.	Unit tripped at 23:21	30-Mar
U4.	Unit synchronised on 2023/03/31 @ 06:04, emissions need to be below the limit by 2023/04/03 @ 06:04 and remain below the limit until 2023/04/04 @ 06:04	31-Mar

PM Exceedances		
U5.	Poor casing performance. Manual rapping done.	06-Mar
U5.	ESP Poor Performance	13-Mar
U5.	ESP Poor Performance and Manual Rapping	14-Mar
U5.	ESP Poor Performance and Manual rapping	17-Mar
U5.	LHI Casing Outage	18-Mar
U5.	ESP Poor Performance and Manual Rapping	20-Mar
U5.	RHO Casing Repairs	23-Mar
U5.	RHO casing outage	24-Mar
U5.	Unit Tripped The unit synchronised at 2023/03/25 @ 11:10, emissions should be below the limit by 2023/03/28 @ 11:10.	25-Mar
U5.	High Emission Correlation Test (SO3 plant off)	30-Mar
U6.	Off load for BTL repairs	01-Mar
U6.	Off load for BTL repairs	02-Mar
U6.	Unit light up & SO3 plant ramping up on temperature.	03-Mar
U6.	Unit light up & SO3 plant ramping up on temperature.	04-Mar
U6.	Poor casing performance. Manual rapping done	07-Mar
U6.	LHO Casing Outage	19-Mar
U6.	Unit Shut Down For Boiler Tube Leak	22-Mar