



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

Date: 27 July 2022

Enquiries:  
W de Klerk  
Tel +27 16 457 5308

**LRP01PLA000 \_0302/20220711**

Dear Mr. Sibaya

**LETHABO POWER STATION EMISSION MONTHLY REPORT FOR JUNE 2022**

Please find attached Lethabo Power Station emission report for the month of June 2022.

Also attached are the Ambient Air Quality Monitoring Report, Complaints Register and the Fugitive Dust Fallout Monitoring Report for June 2022.

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

Yours sincerely

pp **Karabo Rakgolela**  
**GENERAL MANAGER**



Report

Lethabo Power Station

Report name: **Lethabo Power Station  
June 2022  
Emission Report**

Reference number: **LRP01PLA000\_0302/20220711**  
Document Type: **Report**  
Area of Applicability: **Environment**  
Report Date: **July-2022**  
Classification: **Controlled Disclosure**

Signatures:

**Compiled by:**

P Parag  
System Engineer

**Date:** 2022/07/22

**Verified by :**

W de Klerk  
Environmental Officer

**Date:** 2022/07/22

**Reviewed by:**

N Mazibuko  
BPE Manager

**Date:** 2022-07-27

**Reviewed by:**

pp

C Govinden  
PE Manager

**Date:** 2022/07/27

**Reviewed by:**

L Nel  
C&I Manager

**Date:** 2022-07-27

**Reviewed by:**

M Hariram  
Environmental Manager

**Date:** 2022-07-27

**Approved by:**

H Sewsunker  
Engineering Manager

**Date:** 2022-07-27

**CONTROLLED DISCLOSURE**

When downloaded from the database, this document is uncontrolled and it is the responsibility of the user to ensure that it is the same as the authorised revision on the data base

Copyright © 2008, Eskom Generation, Lethabo Power Station

**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 Jun-2022
	Coal	Tons	2 000 000	1 177 244
	Fuel Oil	Tons	1 700	641.65

Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Jun-2022
	Energy	GWh	2743.2	1 750.57
	Ash	Tons	770 000	453 003.4
	RE Ash	kg/MWh	Not Specified	258.77

**2. ENERGY SOURCE CHARACTERISTICS**

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.656 (Standard)	0.590
Ash Content	%	37.37 (Standard)	38.480

\*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	SOx	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 Jun-2022
Unit 1	<i>Electrostatic Precipitator (ESP)</i>	99.77%
Unit 2	<i>Electrostatic Precipitator (ESP)</i>	99.70%
Unit 3	<i>Electrostatic Precipitator (ESP)</i>	99.83%
Unit 4	<i>Electrostatic Precipitator (ESP)</i>	99.65%
Unit 5	<i>Electrostatic Precipitator (ESP)</i>	<i>Unit Off-line</i>
Unit 6	<i>Electrostatic Precipitator (ESP)</i>	99.77%

### 5. MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO
Unit 1	91.9	99.9	99.9
Unit 2	98.5	99.9	99.9
Unit 3	99.5	100.0	100.0
Unit 4	99.2	98.9	99.1
Unit 5	<i>Unit Off</i>	<i>Unit Off</i>	<i>Unit Off</i>
Unit 6	99.1	98.9	99.2

## 6. EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of June 2022

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)
Unit 1	213.7	3 176	1 585
Unit 2	251.1	3 442	1 510
Unit 3	132.5	3 051	1 417
Unit 4	246.9	3 624	1 531
Unit 5	<i>Unit Off</i>	<i>Unit Off</i>	<i>Unit Off</i>
Unit 6	188.9	3 700	1 625
<b>SUM</b>	<b>1 033.1</b>	<b>16 994</b>	<b>7 668</b>

Table 6.2: Operating days in compliance to PM AEL Limit - June 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
Unit 1	11	19	0	0	19	134.5
Unit 2	12	18	0	0	18	134.8
Unit 3	24	1	0	0	1	81.7
Unit 4	13	12	1	0	13	152.0
Unit 5	0	0	0	0	0	
Unit 6	19	10	0	0	10	115.4
<b>SUM</b>	<b>79</b>	<b>60</b>	<b>1</b>	<b>0</b>	<b>61</b>	

Table 6.3: Operating days in compliance to SO<sub>x</sub> AEL Limit - June 2022

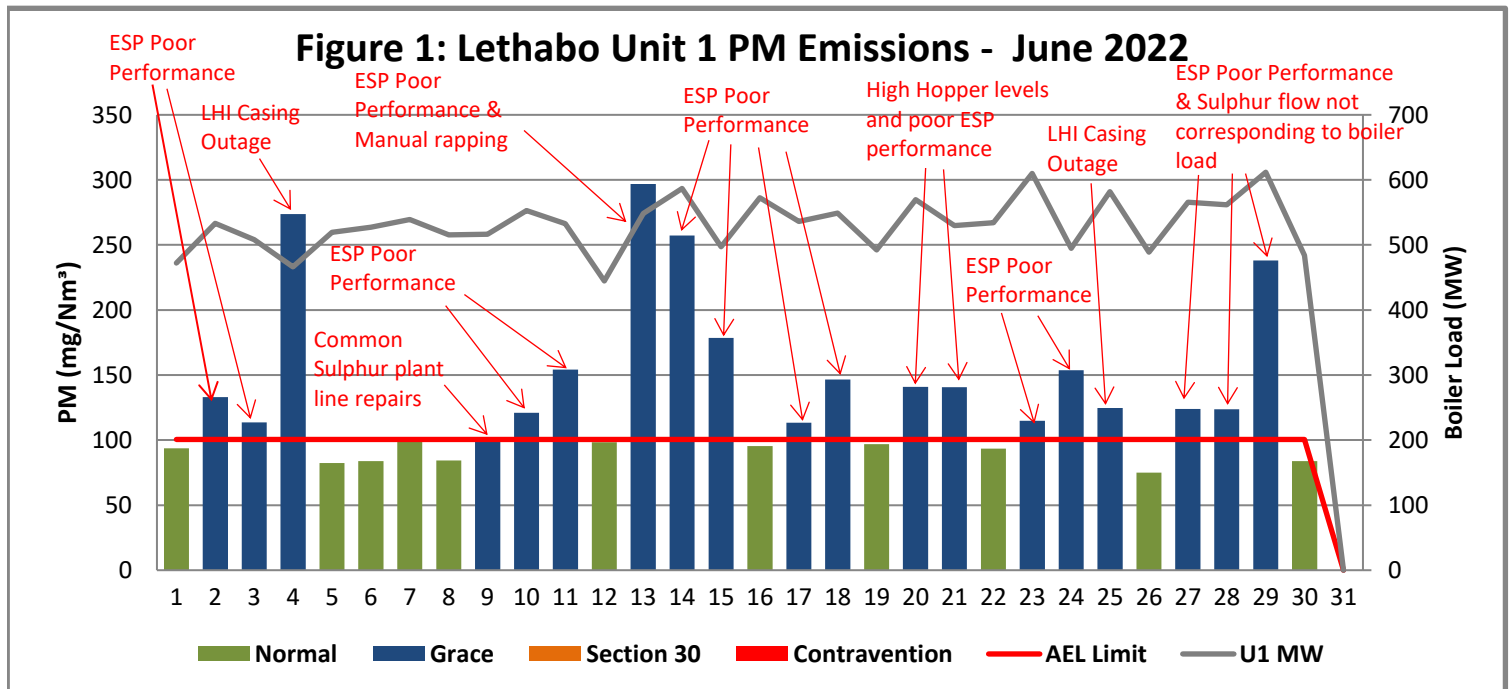
Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average SO <sub>x</sub> (mg/Nm <sup>3</sup> )
Unit 1	30	0	0	0	0	2 014.3
Unit 2	30	0	0	0	0	1 822.0
Unit 3	26	0	0	0	0	1 784.4
Unit 4	27	0	0	0	0	2 094.7
Unit 5	0	0	0	0	0	
Unit 6	30	0	0	0	0	2 169.1
<b>SUM</b>	<b>143</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 6.4: Operating days in compliance to NOx AEL Limit - June 2022

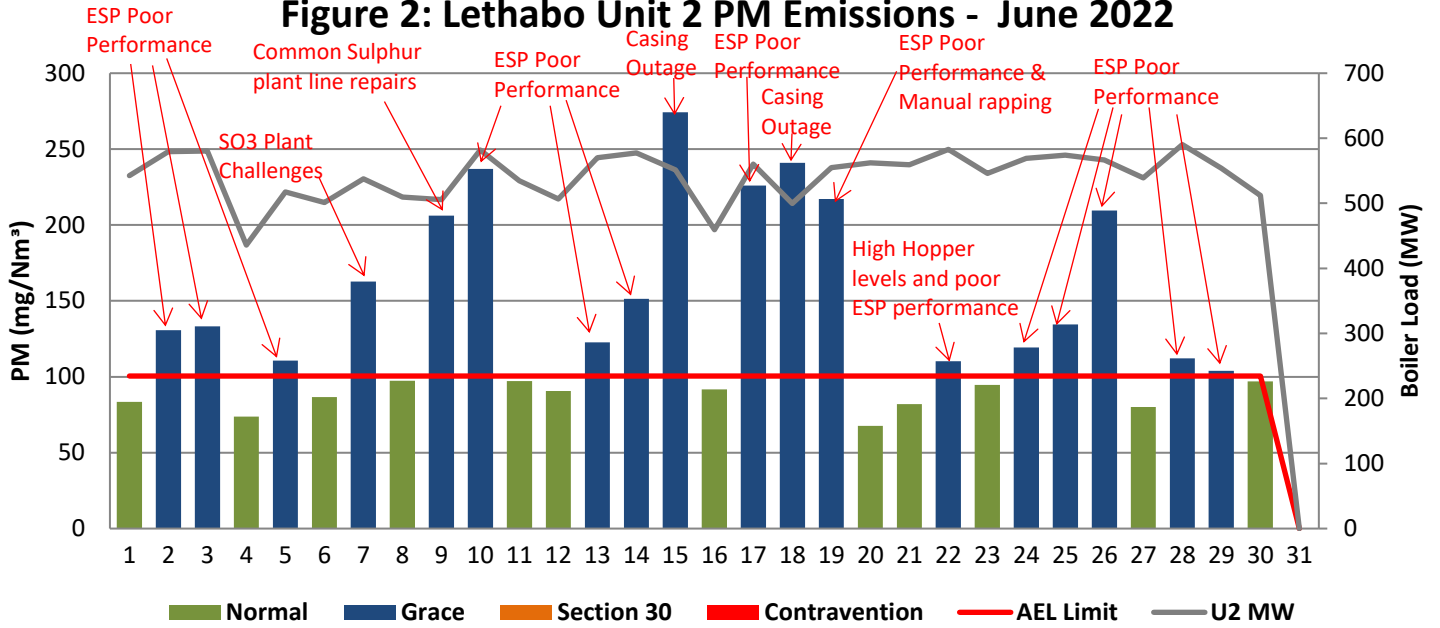
Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average NOx (mg/Nm³)
Unit 1	30	0	0	0	0	1 002.1
Unit 2	30	0	0	0	0	797.1
Unit 3	26	0	0	0	0	828.8
Unit 4	27	0	0	0	0	876.0
Unit 5	0	0	0	0	0	
Unit 6	30	0	0	0	0	952.8
<b>SUM</b>	<b>143</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 6.5: Legend Description

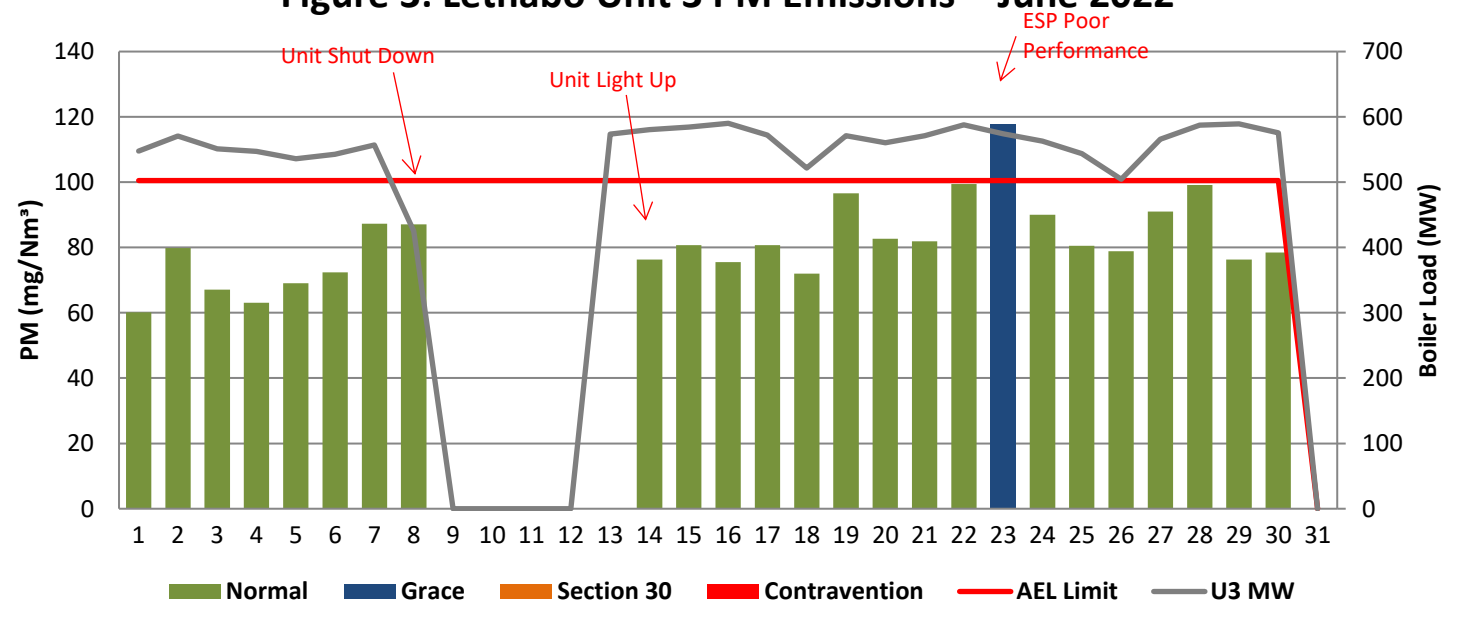
Condition	Colour	Description
Normal	GREEN	Emissions below Emission Limit Value (ELV)
Grace	BLUE	Emissions above the ELV during grace period
Section 30	ORANGE	Emissions above ELV during a NEMA S30 incident
Contra-vention	RED	Emissions above ELV but outside grace or S30 incident conditions



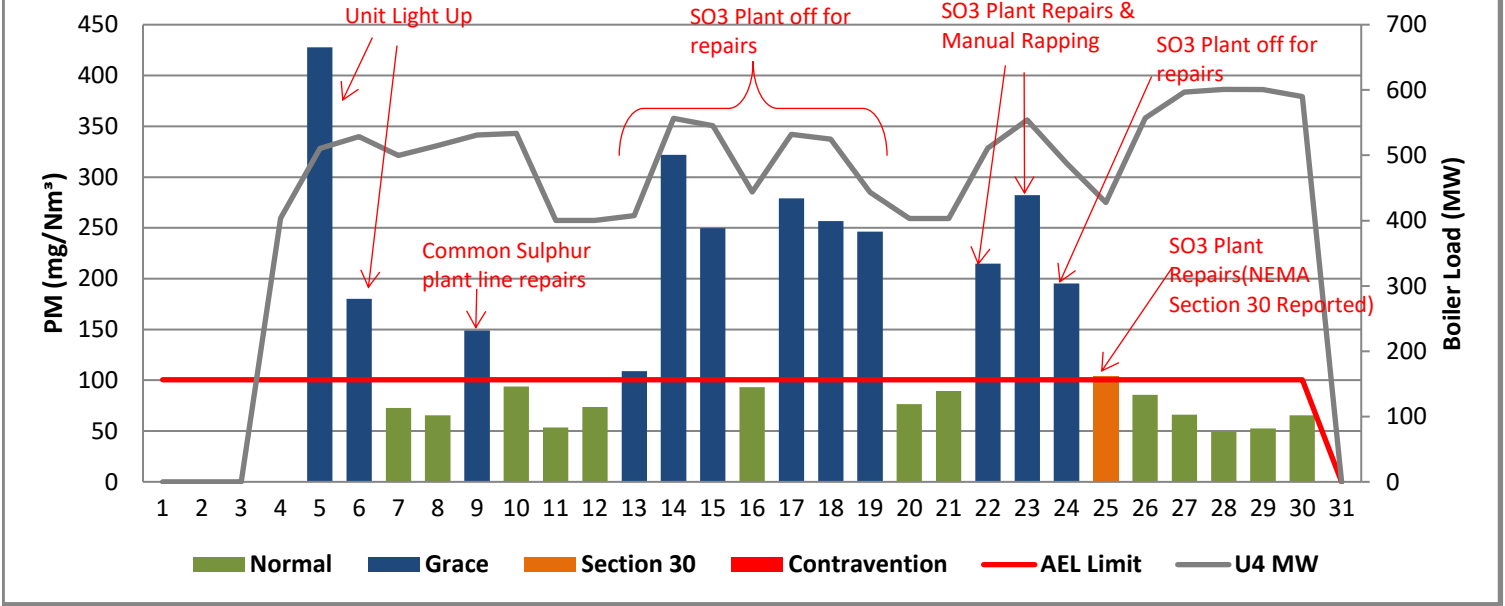
**Figure 2: Lethabo Unit 2 PM Emissions - June 2022**



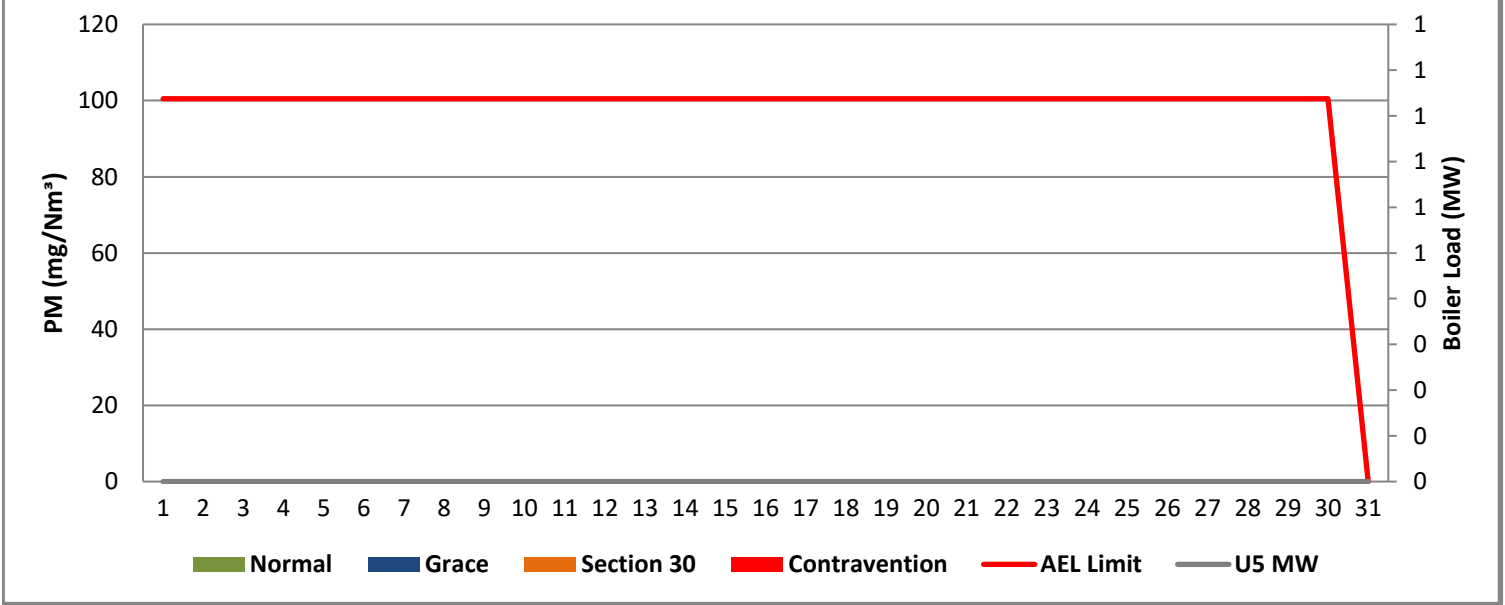
**Figure 3: Lethabo Unit 3 PM Emissions - June 2022**



**Figure 4: Lethabo Unit 4 PM Emissions - June 2022**

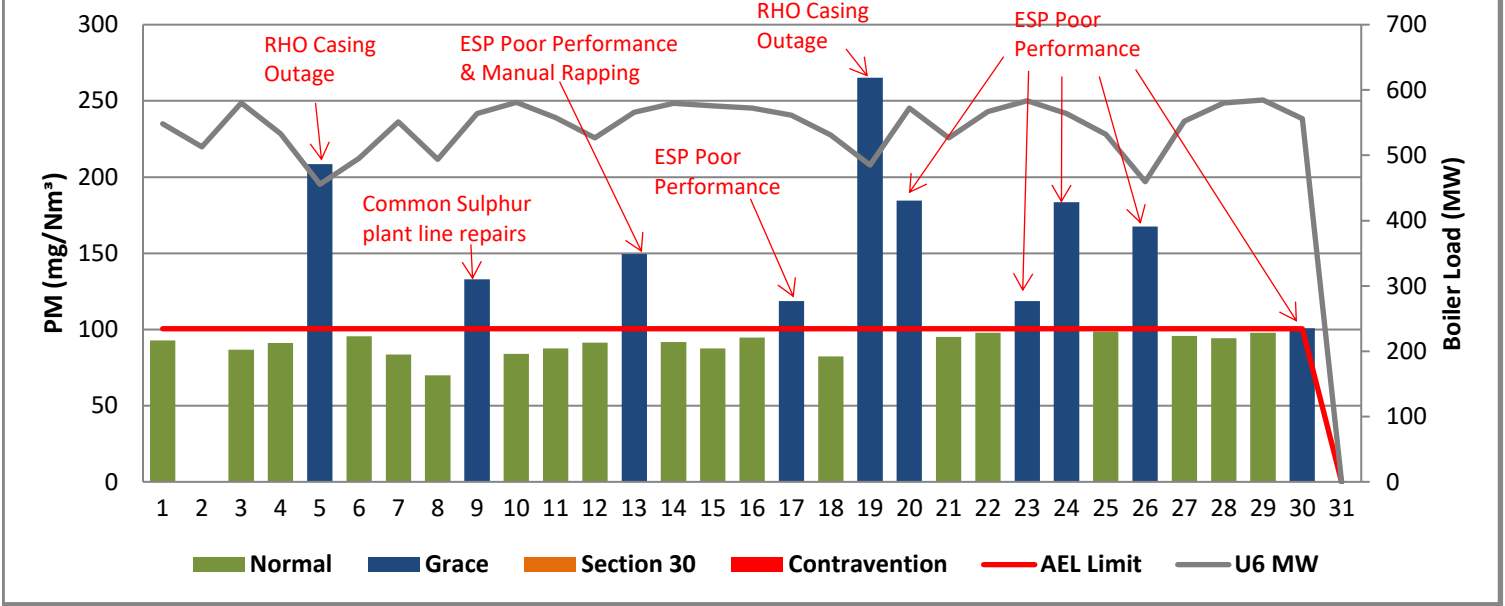


**Figure 5: Lethabo Unit 5 PM Emissions - June 2022**

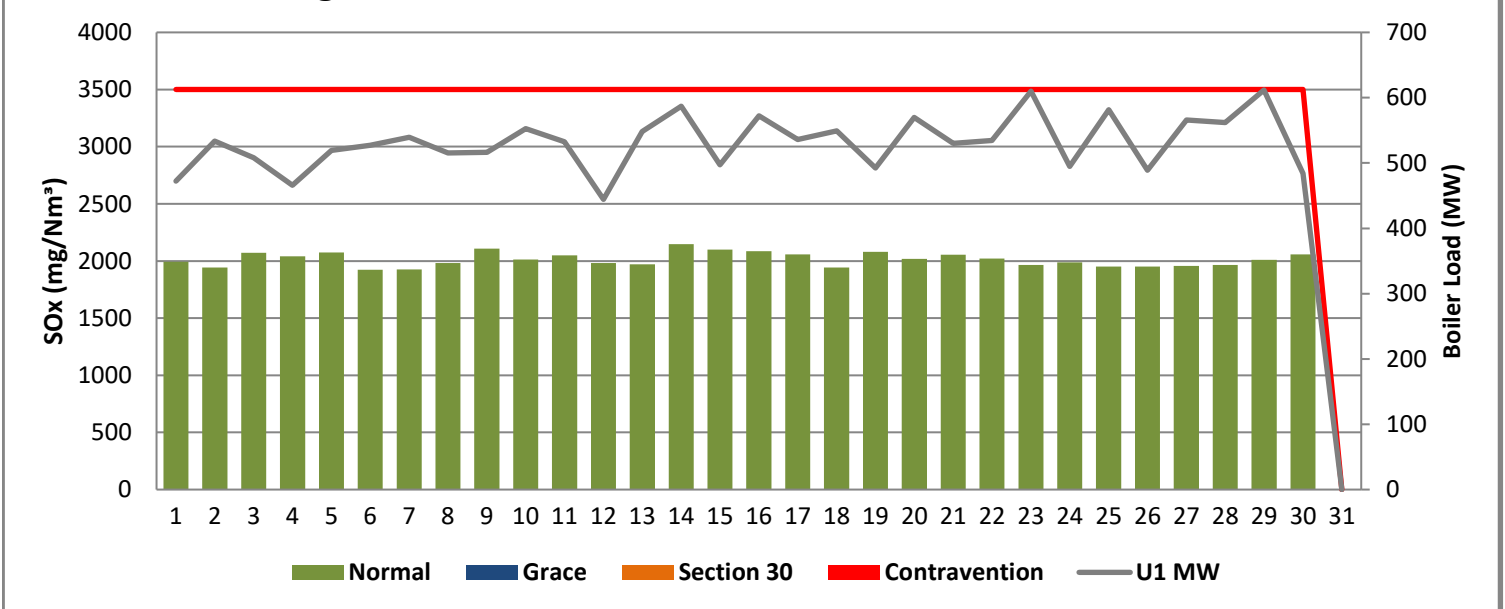




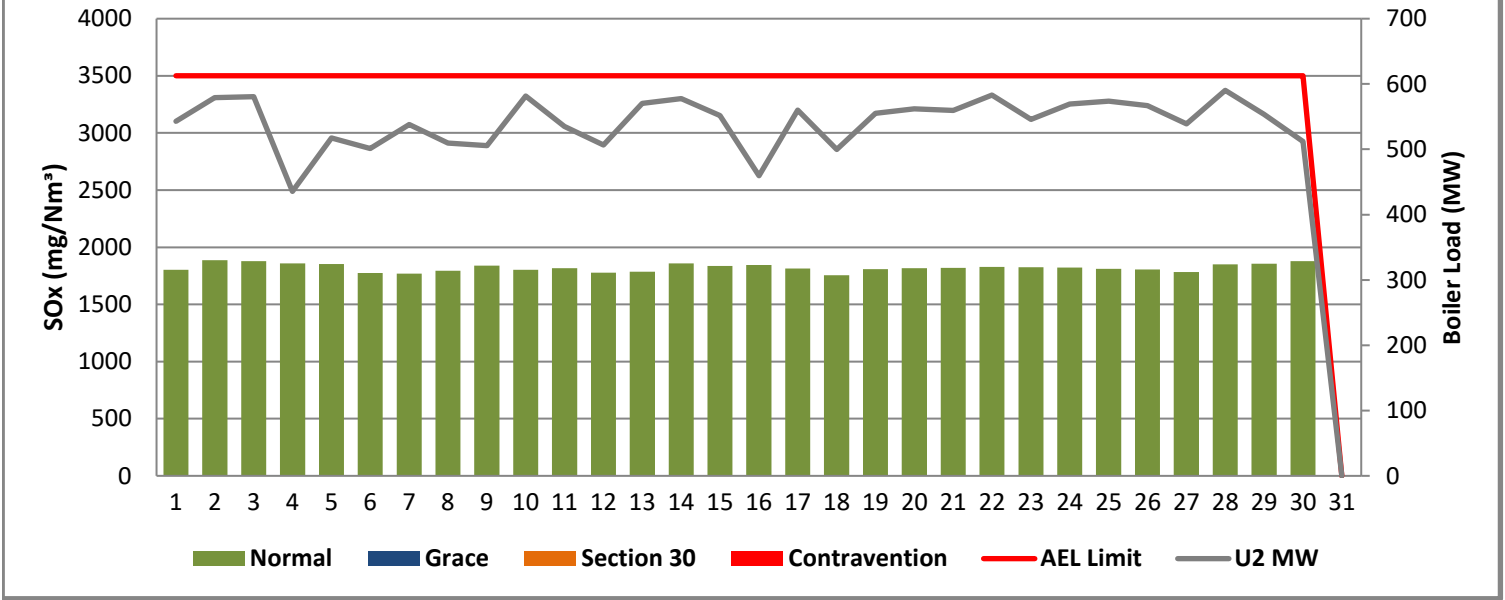
**Figure 6: Lethabo Unit 6 PM Emissions - June 2022**



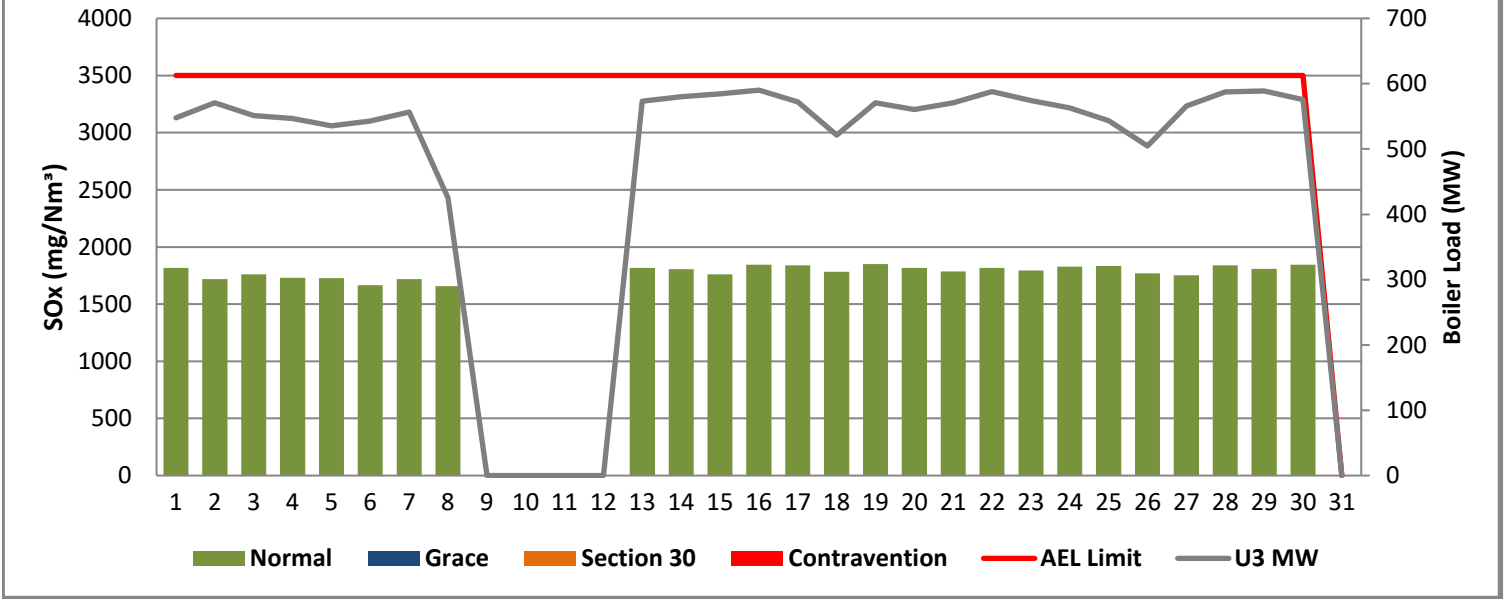
**Figure 7: Lethabo Unit 1 SOx Emissions - June 2022**



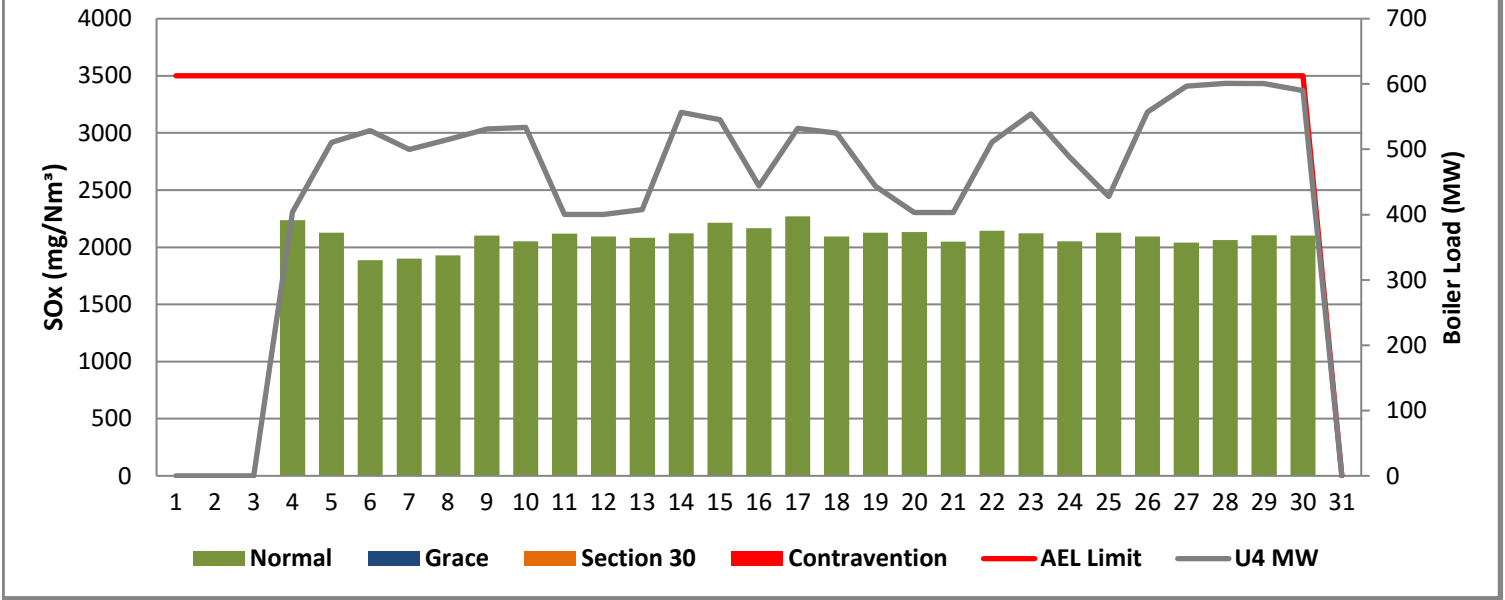
**Figure 8: Lethabo Unit 2 SOx Emissions - June 2022**



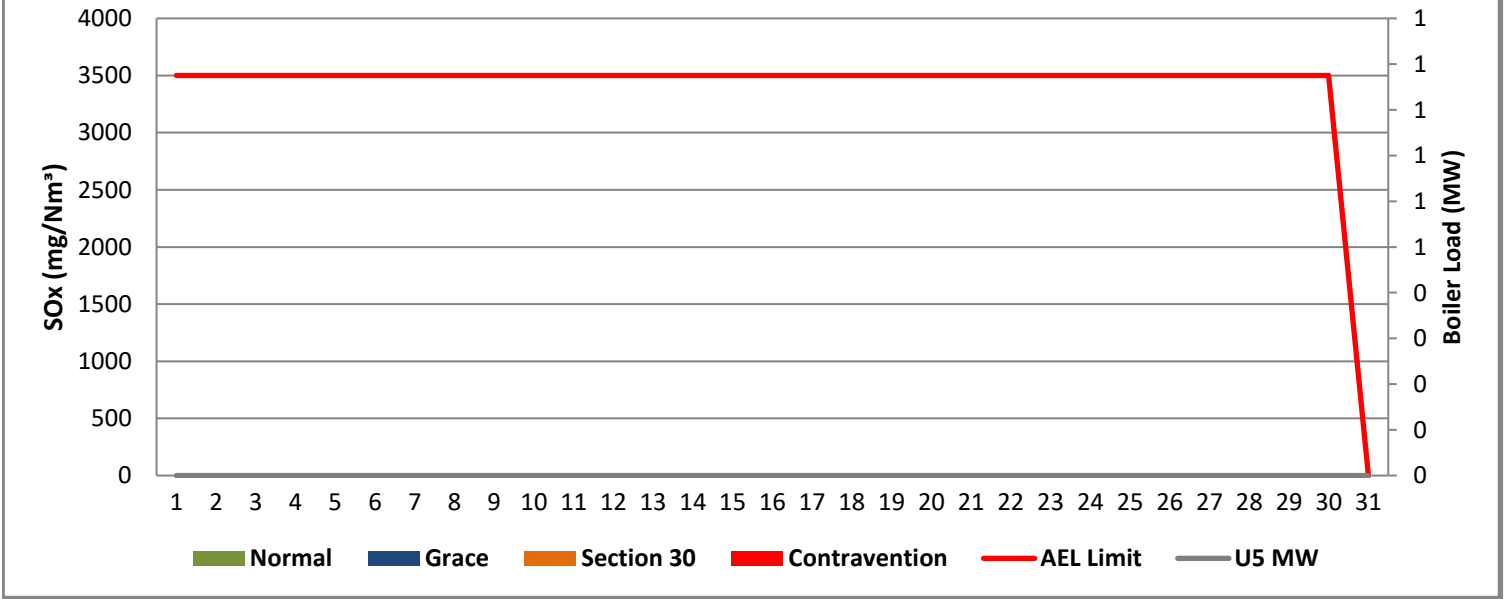
**Figure 9: Lethabo Unit 3 SOx Emissions - June 2022**



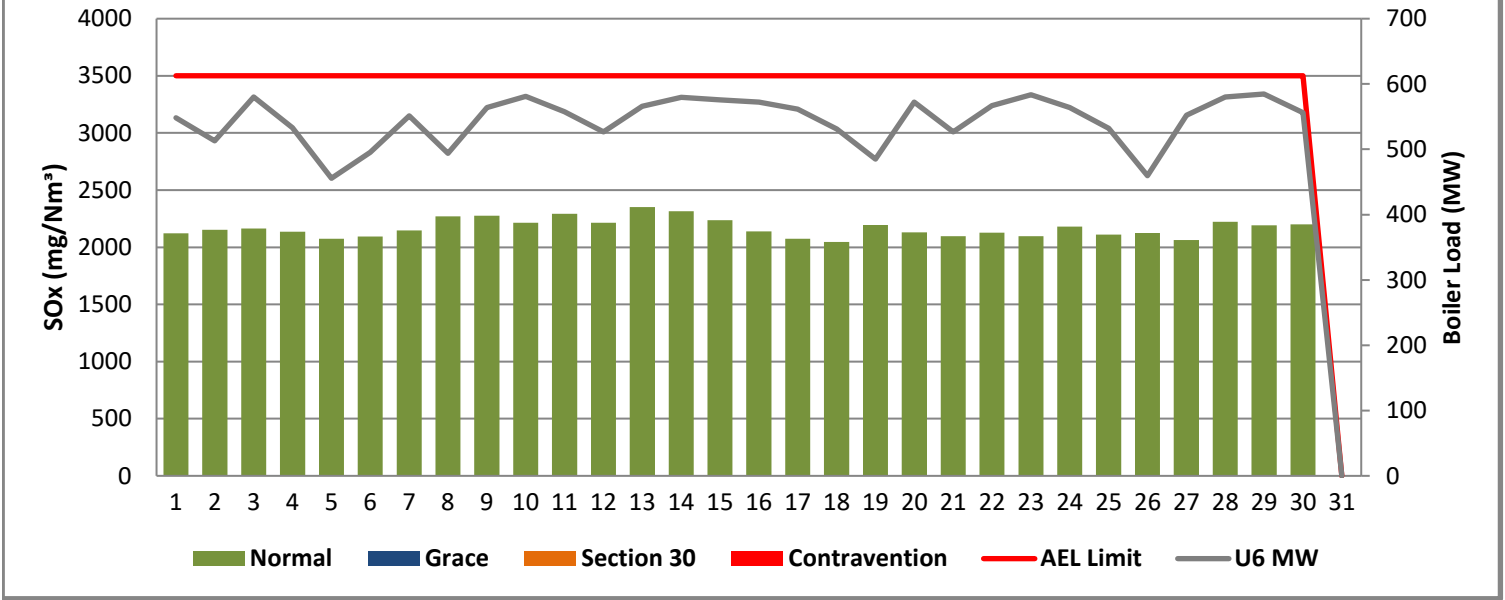
**Figure 10: Lethabo Unit 4 SOx Emissions - June 2022**



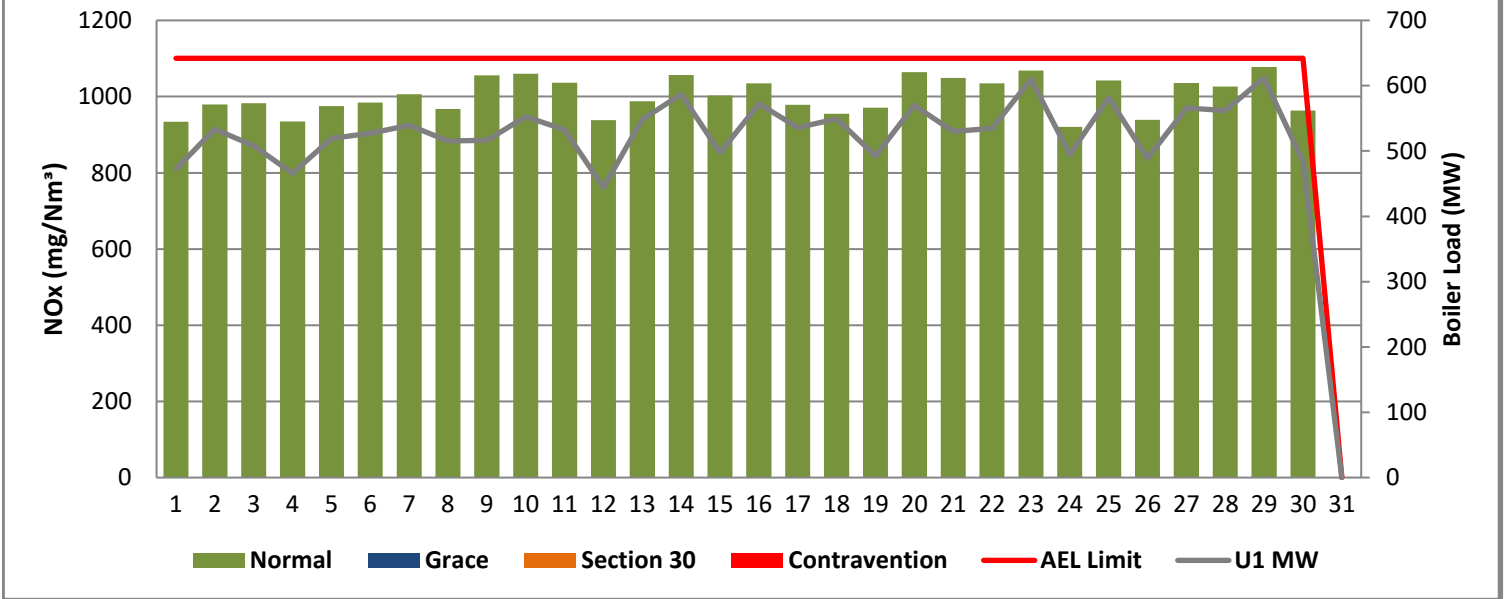
**Figure 11: Lethabo Unit 5 SOx Emissions - June 2022**



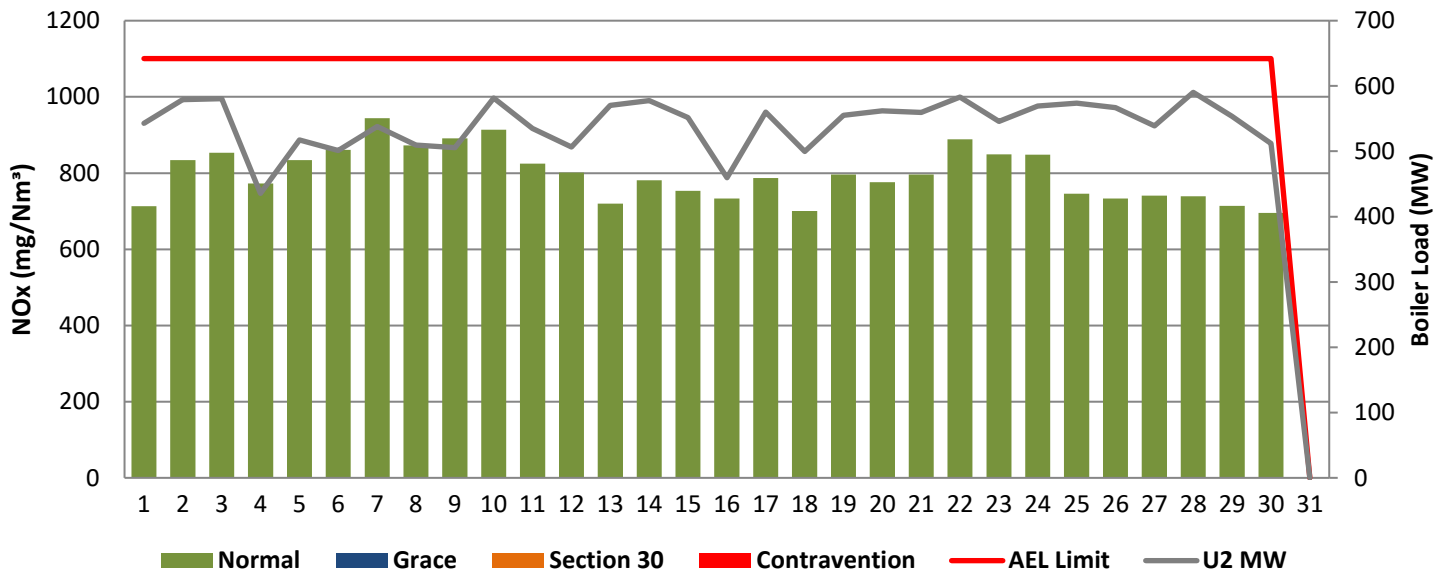
**Figure 12: Lethabo Unit 6 SOx Emissions - June 2022**



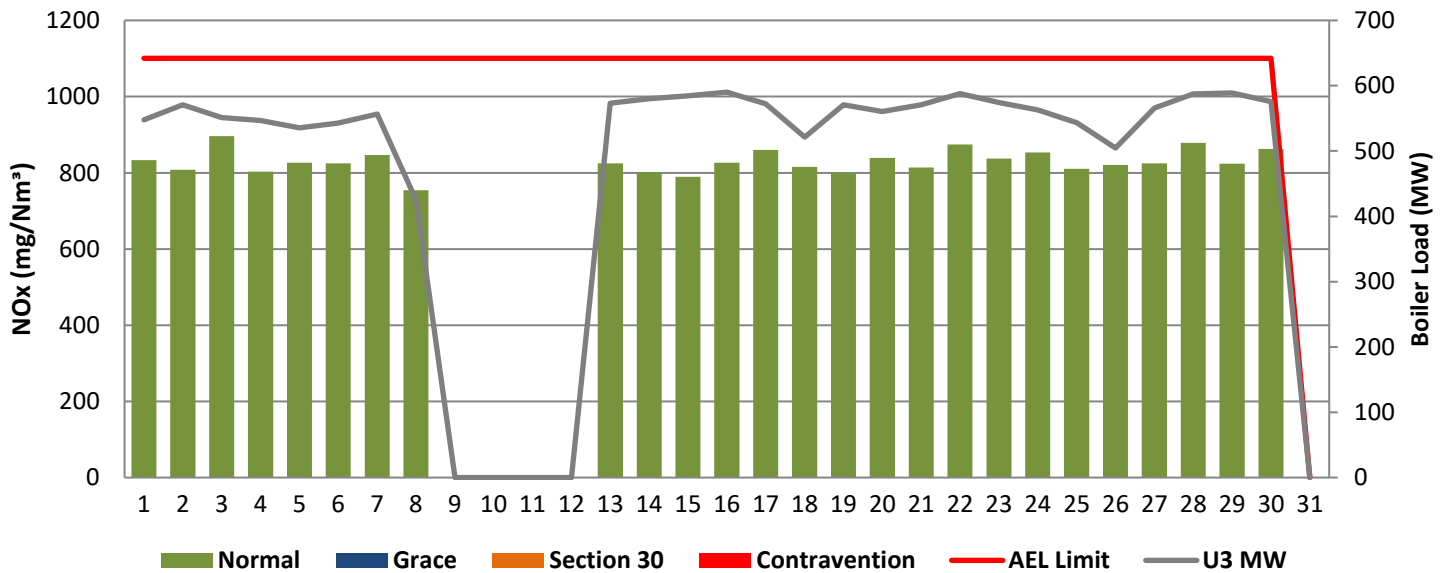
**Figure 13: Lethabo Unit 1 NOx Emissions - June 2022**



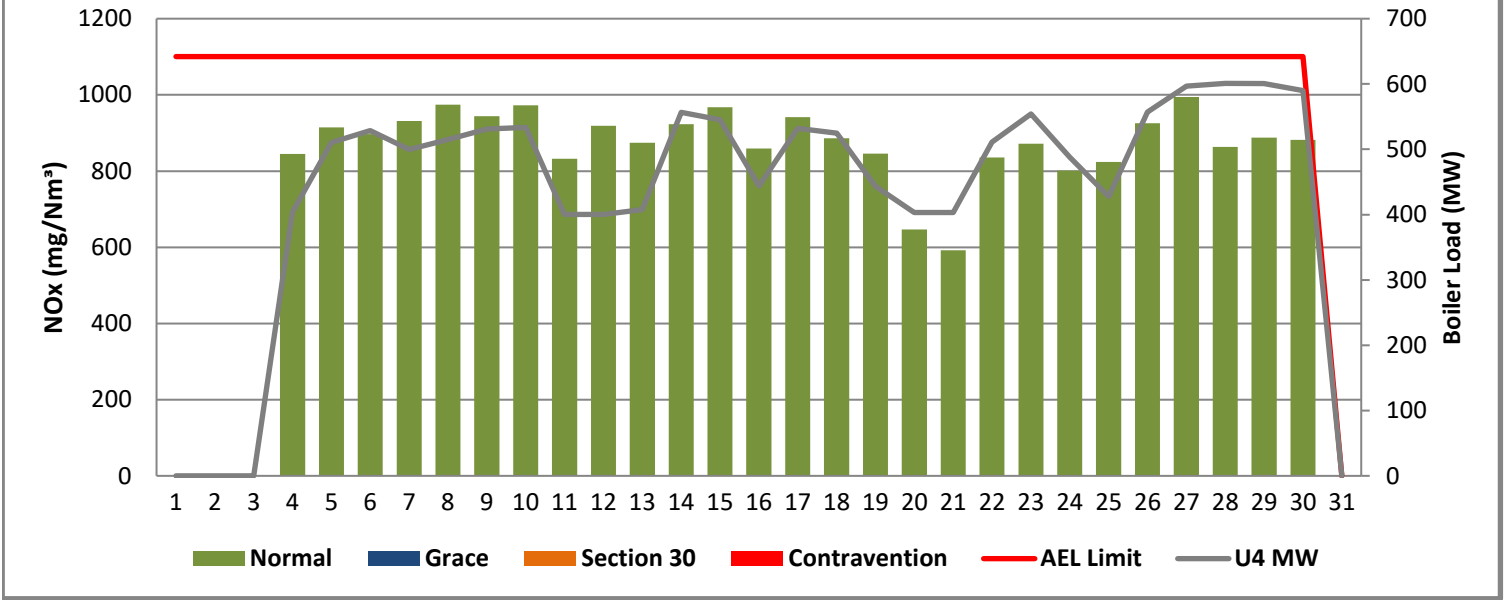
**Figure 14: Lethabo Unit 2 NOx Emissions - June 2022**



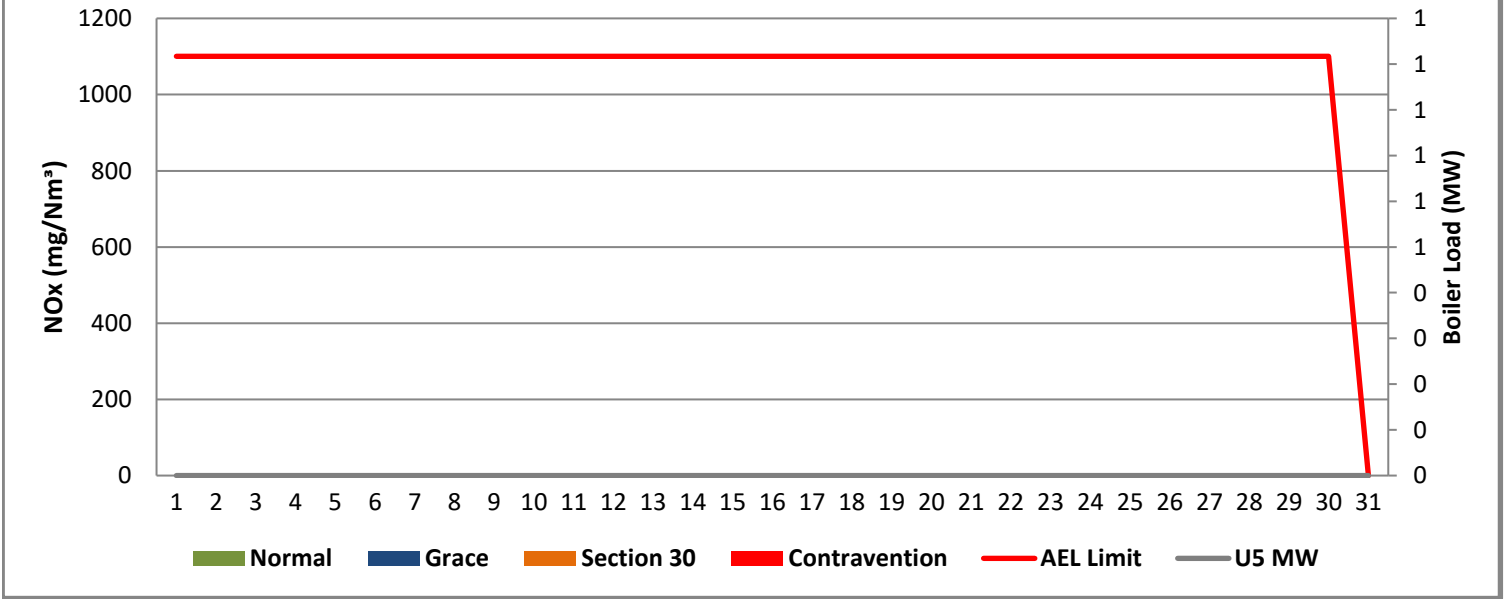
**Figure 15: Lethabo Unit 3 NOx Emissions - June 2022**



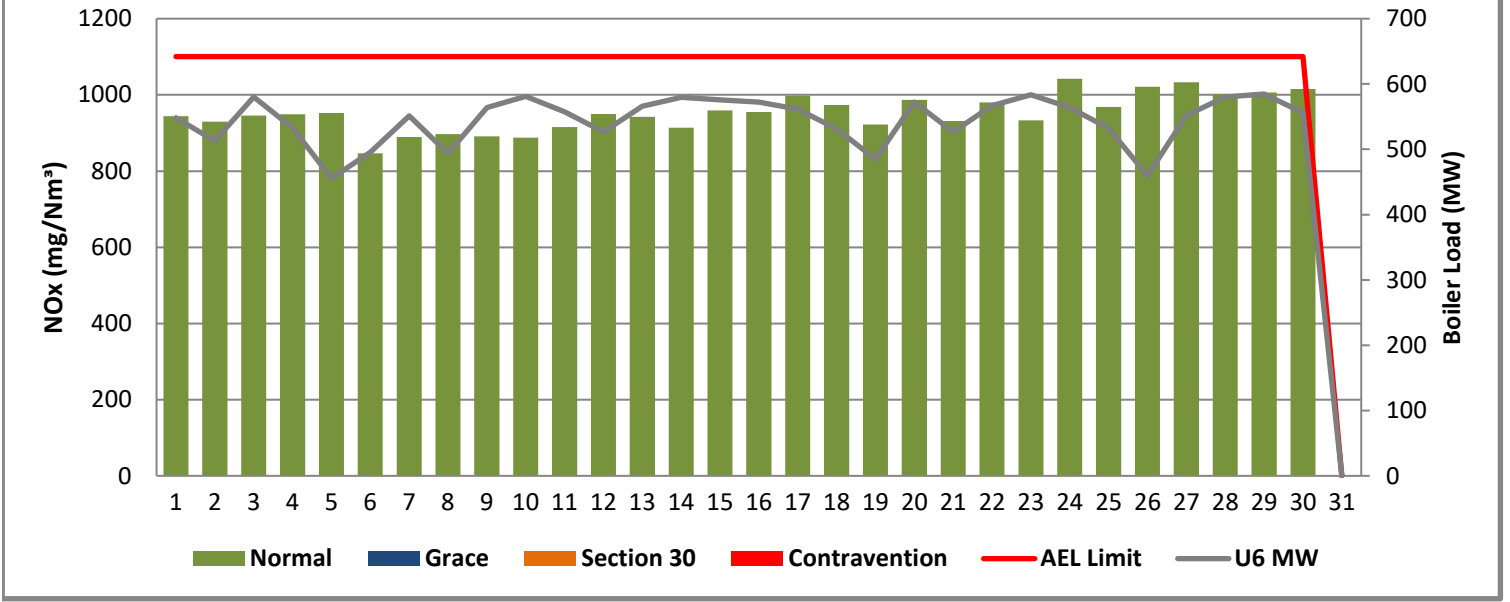
**Figure 16: Lethabo Unit 4 NOx Emissions - June 2022**



**Figure 17: Lethabo Unit 5 NOx Emissions - June 2022**



**Figure 18: Lethabo Unit 6 NOx Emissions - June 2022**



## 7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1: PM Start-up information for the month of June 2022

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

<b>Unit No.2</b>	<i>Manually tripped due to Turbine malfunction</i>					
<b>Breaker Open (BO)</b>	<i>10:40 AM</i>	<i>2022/06/04</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>	<i>DD:HH:MM</i>				
<b>Fires in time</b>	<i>1:19 PM</i>	<i>2022/06/04</i>				
<b>Synch. to Grid (or BC)</b>	<i>2:27 PM</i>	<i>2022/06/04</i>				
<b>Fires in to BC (duration)</b>	<i>00:01:08</i>	<i>DD:HH:MM</i>				
<b>Emissions below limit from BC (end date)</b>	<i>not &gt; limit</i>	<i>not &gt; limit</i>				
<b>Emissions below limit from BC (duration)</b>	<i>n/a</i>	<i>DD:HH:MM</i>				



<b>Unit No.3</b>	<i>Unit tripped due to Both FD fans tripping</i>		<i>Boiler tube leak repairs</i>					
<b>Breaker Open (BO)</b>	<i>9:55 AM</i>	<i>2022/06/08</i>	<i>9:25 PM</i>	<i>2022/06/08</i>				
<b>Draught Group (DG) Shut Down (SD)</b>	<i>10:05 AM</i>	<i>2022/06/08</i>	<i>10:10 AM</i>	<i>2022/06/09</i>				
<b>BO to DG SD (duration)</b>	<i>00:00:10</i>	<i>DD:HH:MM</i>	<i>00:12:45</i>	<i>DD:HH:MM</i>				
<b>Fires in time</b>	<i>11:26 AM</i>	<i>2022/06/08</i>	<i>12:51 AM</i>	<i>2022/06/13</i>				
<b>Synch. to Grid (or BC)</b>	<i>12:02 PM</i>	<i>2022/06/08</i>	<i>2:15 AM</i>	<i>2022/06/13</i>				
<b>Fires in to BC (duration)</b>	<i>00:00:36</i>	<i>DD:HH:MM</i>	<i>00:01:24</i>	<i>DD:HH:MM</i>				
<b>Emissions below limit from BC (end date)</b>	<i>not &gt; limit</i>	<i>not &gt; limit</i>	<i>not &gt; limit</i>	<i>not &gt; limit</i>				
<b>Emissions below limit from BC (duration)</b>	<i>n/a</i>	<i>DD:HH:MM</i>	<i>n/a</i>	<i>DD:HH:MM</i>				

<b>Unit No.4</b>	<i>Boiler tube leak Linked to IN outage from 25May2022</i>							
<b>Breaker Open (BO)</b>								
<b>Draught Group (DG) Shut Down (SD)</b>								
<b>BO to DG SD (duration)</b>		<i>DD:HH:MM</i>						
<b>Fires in time</b>	<i>1:18 PM</i>	<i>2022/06/04</i>						
<b>Synch. to Grid (or BC)</b>	<i>1:36 PM</i>	<i>2022/06/04</i>						
<b>Fires in to BC (duration)</b>	<i>00:00:18</i>	<i>DD:HH:MM</i>						
<b>Emissions below limit from BC (end date)</b>	<i>not &gt; limit</i>	<i>not &gt; limit</i>						
<b>Emissions below limit from BC (duration)</b>	<i>n/a</i>	<i>DD:HH:MM</i>						

Unit No.5							
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.6	<i>Unit tripped on Boiler drum level low.</i>						
Breaker Open (BO)	8:15 PM	2022/06/01					
Draught Group (DG) Shut Down (SD)	10:00 PM	2022/06/01					
BO to DG SD (duration)	00:01:45	DD:HH:MM					
Fires in time	10:49 PM	2022/06/01					
Synch. to Grid (or BC)							
Fires in to BC (duration)		DD:HH:MM					
Emissions below limit from BC (end date)		#VALUE!					
Emissions below limit from BC (duration)	n/a	DD:HH:MM					

7.2: Point Source emissions released during start-up (fires-in) and Shut-down (SD) for the month of June 2022 in mg/Nm<sup>3</sup>

## 8. MAINTENANCE

<b>Unit 1</b>				
<b>Beginning of</b>	2022/06/04 00:00	2022/06/23 23:13		
<b>Reason for Maintenance</b>	LHI Precip casing repairs	LHO Precip casing repairs		
<b>End (Time):</b>	2022/06/05 00:00	2022/06/24 23:13		
<b>Duration</b>	24:00:00	24:00:00		

<b>Unit 2</b>				
<b>Beginning of</b>	2022/06/18 00:03	2022/06/25 00:02		
<b>Reason for Maintenance</b>	RHI precip casing repairs	LHO Precip casing repairs		
<b>End (Time):</b>	2022/06/18 20:41	2022/06/25 06:37		
<b>Duration</b>	20:38:00	6:35:00		

<b>Unit 3</b>				
<b>Beginning of</b>				
<b>Reason for Maintenance</b>				
<b>End (Time):</b>				
<b>Duration</b>				

<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>				
<b>Reason for Maintenance</b>				
<b>End (Time):</b>				
<b>Duration</b>				

<b>Unit 6</b>				
<b>Beginning of</b>	2022/06/05 00:02:00	2022/06/19 00:00	2022/06/25 23:58	
<b>Reason for Maintenance</b>	RHO precip casing repairs.	RHO precip casing repairs.	LHO Precip casing repairs	
<b>End (Time):</b>	2022/06/06 00:00:00	2022/06/19 23:10	2022/06/26 23:55	
<b>Duration</b>	23:58:00	23:10:00	23:57:00	

## 9. GENERAL

### Unit 1 :

PM Monitor Availability on 04/06/2022: The monitor availability was 75% due to the monitors at maximum output hence the reporting tool does not take the readings and affects the monitor availability

PM Monitor Availability on 14/06/2022: The monitor availability was 70.8% due to variability greater than 10% between output 1 and output 2 hence the reporting tool does not take the readings and affects the monitor availability

PM Monitor Availability on 20/06/2022: The monitor availability was 79.2% due to variability greater than 10% between output 1 and output 2 hence the reporting tool does not take the readings and affects the monitor availability

PM Monitor Availability on 26/06/2022: The monitor availability was 58.3% due to Monitor being off 25/06/2022 23:55 - 26/06/2022 01:10; 26/06/2022 03:25 - 26/06/2022 06:55; 26/06/2022 12:25 - 26/06/2022 16:45

PM Monitor Availability on 28/06/2022: The monitor availability was 58.3% due to variability greater than 10% between output 1 and output 2 hence the reporting tool does not take the readings and affects the monitor availability

PM Monitor Availability on 29/06/2022: The monitor availability was 75% due to the monitor reading max 01:30-01:45; and due to variability greater than 10% between output 1 and output 2 hence the reporting tool does not take the readings and affects the monitor availability

### Unit 2 :

PM Monitor Availability on 04/06/2022: The monitor availability was 75% due to the Monitors not reading between 02:00-07:55 hence the reporting tool does not take the readings and affects the monitor availability

Gaseous monitors (SO<sub>x</sub>,NO<sub>x</sub>,CO,CO<sub>2</sub>,and O<sub>2</sub>) Availability on 02/06/2022: The monitor availability was 70.8% due to O<sub>2</sub> Monitor started reading high from 02/06/22 16:55 affecting the reliability.

Gaseous monitors (SO<sub>x</sub>,NO<sub>x</sub>,CO,CO<sub>2</sub>,and O<sub>2</sub>) Availability on 03/06/2022: The monitor availability was 50% due to O<sub>2</sub> Monitor started reading high affecting the reliability.

### Unit 4:

Gaseous monitors (SO<sub>x</sub>,NO<sub>x</sub>,CO,CO<sub>2</sub>,H<sub>2</sub>O and O<sub>2</sub>) Availability on 21/06/2022: The monitor availability was 75% due to the monitor not reading from 03:05 on 21/06/2022 to 08:45 21/06/2022 affecting the reliability.

### Unit 6:

Gaseous monitors (SO<sub>x</sub>,NO<sub>x</sub>,CO,CO<sub>2</sub>,and O<sub>2</sub>) Availability on 21/06/2022: The monitor availability was 75% due to the monitor not reading from 03:05 on 21/06/2022 to 08:45 21/06/2022 affecting the reliability.

### Unit 4:

Section 30 reported on 26/06/2022 (one day): Unit 4 had challenges with its SO<sub>3</sub> plant and was off for repairs from 13/06/2022-25/06/2022.

### Unit 1,2 &3:

There was a power supply issue to the monitors. The monitors tripped on the 22/06/2022 at 21:40 and returned on the 23/06/2022 at 01:20.

From 01:10 to about 02:05, the ESP is undergoing a cleaning rapping cycle where the emissions are expected to be high.

During the power supply downtime period, the monitor and purge system is not in service and one would expect some contamination of the monitors lenses and/or settlement of dust in the probe/stub on the flue gas sides of the shutters. When the power supply is returned, the monitor goes through a start-up cycle and there will be elevated readings as the purge system is trying to overcome the dust settlement. The average clean rapping emissions of from the day before and the day after be used for the period 01:20 to 02:05 on the 23/06/2022. For the period from 21:40 on the 22/06/2022 until the 01:20 on the 23/06/2022, the ERT will use the average emissions for the remaining period on both these days.

**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.
4	22/06/2022	25/06/2022	SO3 Plant off for repairs	So3 Plant Repairs were completed and plant was put back in service	26/06/2022	06/07/2022			NEMA Section 30 Reported

**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
<b>Jul-21</b>	0.23	0.55	0.43	0.31	0.27	0.29	0.35
<b>Aug-21</b>	0.24	0.73	0.41	0.55	0.24	0.28	0.41
<b>Sep-21</b>	0.38	0.92	0.52	0.33	0.26	OFF	0.47
<b>Oct-21</b>	0.63	0.53	0.50	0.50	0.40	OFF	0.51
<b>Nov-21</b>	0.34	0.59	0.52	0.52	0.41	0.41	0.46
<b>Dec-21</b>	0.39	OFF	0.55	0.57	0.34	0.29	0.42
<b>Jan-22</b>	0.37	OFF	0.52	0.46	0.47	0.36	0.44
<b>Feb-22</b>	0.47	1.06	0.62	0.44	0.38	0.59	0.56
<b>Mar-22</b>	0.73	0.90	0.66	0.58	0.33	0.43	0.57
<b>Apr-22</b>	0.60	0.61	0.53	0.45	OFF	0.37	0.51
<b>May-22</b>	0.55	0.59	0.33	0.19	OFF	0.44	0.45
<b>Jun-22</b>	0.56	0.65	0.39	0.77	OFF	0.48	0.57

**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-Jun	94	84	60	OFF	OFF	93	100
02-Jun	133	131	80	OFF	OFF	OFF	100
03-Jun	114	133	67	OFF	OFF	87	100
04-Jun	274	74	63	OFF	OFF	91	100
05-Jun	82	111	69	428	OFF	208	100
06-Jun	84	87	72	180	OFF	96	100
07-Jun	99	163	87	73	OFF	83	100
08-Jun	84	97	87	66	OFF	70	100
09-Jun	102	206	OFF	149	OFF	133	100
10-Jun	121	237	OFF	94	OFF	84	100
11-Jun	154	97	OFF	54	OFF	88	100
12-Jun	98	91	OFF	74	OFF	91	100
13-Jun	297	123	OFF	109	OFF	149	100
14-Jun	257	151	76	322	OFF	92	100
15-Jun	179	274	81	250	OFF	88	100
16-Jun	95	92	76	93	OFF	95	100
17-Jun	113	226	81	279	OFF	119	100
18-Jun	147	241	72	257	OFF	82	100
19-Jun	97	217	97	246	OFF	265	100
20-Jun	141	68	83	76	OFF	184	100
21-Jun	141	82	82	89	OFF	95	100
22-Jun	93	110	99	215	OFF	98	100
23-Jun	115	95	118	282	OFF	119	100
24-Jun	154	119	90	195	OFF	183	100
25-Jun	125	134	81	103	OFF	99	100
26-Jun	75	210	79	86	OFF	168	100
27-Jun	124	80	91	66	OFF	96	100
28-Jun	124	112	99	49	OFF	94	100
29-Jun	238	104	76	53	OFF	98	100
30-Jun	84	97	78	66	OFF	101	100

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

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

Date	U1	U2	U3	U4	U5	U6	Limit
01-Jun	1993	1804	1817	OFF	OFF	2122	3500
02-Jun	1943	1886	1720	OFF	OFF	2154	3500
03-Jun	2071	1877	1760	OFF	OFF	2165	3500
04-Jun	2041	1860	1732	2236	OFF	2137	3500
05-Jun	2074	1854	1728	2128	OFF	2075	3500
06-Jun	1922	1775	1667	1886	OFF	2094	3500
07-Jun	1925	1769	1720	1900	OFF	2147	3500
08-Jun	1983	1794	1659	1930	OFF	2272	3500
09-Jun	2107	1840	OFF	2104	OFF	2275	3500
10-Jun	2012	1803	OFF	2053	OFF	2216	3500
11-Jun	2050	1816	OFF	2119	OFF	2294	3500
12-Jun	1982	1778	OFF	2093	OFF	2216	3500
13-Jun	1970	1786	1816	2082	OFF	2353	3500
14-Jun	2146	1859	1807	2121	OFF	2314	3500
15-Jun	2099	1835	1761	2215	OFF	2238	3500
16-Jun	2085	1844	1846	2167	OFF	2139	3500
17-Jun	2057	1815	1840	2271	OFF	2075	3500
18-Jun	1944	1756	1782	2093	OFF	2046	3500
19-Jun	2081	1808	1849	2129	OFF	2195	3500
20-Jun	2020	1817	1816	2132	OFF	2131	3500
21-Jun	2056	1820	1787	2048	OFF	2097	3500
22-Jun	2020	1829	1816	2144	OFF	2128	3500
23-Jun	1966	1826	1795	2122	OFF	2097	3500
24-Jun	1988	1823	1829	2052	OFF	2181	3500
25-Jun	1952	1812	1835	2128	OFF	2110	3500
26-Jun	1952	1806	1768	2093	OFF	2126	3500
27-Jun	1957	1784	1751	2040	OFF	2064	3500
28-Jun	1965	1850	1840	2064	OFF	2224	3500
29-Jun	2010	1857	1808	2105	OFF	2191	3500
30-Jun	2057	1878	1846	2102	OFF	2202	3500

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

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

Date	U1	U2	U3	U4	U5	U6	Limit
01-Jun	934	713	833	OFF	OFF	944	1100
02-Jun	979	834	808	OFF	OFF	930	1100
03-Jun	983	853	896	OFF	OFF	946	1100
04-Jun	935	773	803	845	OFF	949	1100
05-Jun	976	834	827	914	OFF	953	1100
06-Jun	984	861	825	897	OFF	846	1100
07-Jun	1006	944	846	932	OFF	890	1100
08-Jun	968	873	754	974	OFF	897	1100
09-Jun	1055	891	OFF	944	OFF	891	1100
10-Jun	1060	913	OFF	973	OFF	887	1100
11-Jun	1037	824	OFF	832	OFF	915	1100
12-Jun	938	802	OFF	919	OFF	950	1100
13-Jun	988	720	825	874	OFF	943	1100
14-Jun	1057	781	801	923	OFF	913	1100
15-Jun	1003	753	790	967	OFF	959	1100
16-Jun	1035	733	826	859	OFF	955	1100
17-Jun	979	787	860	941	OFF	997	1100
18-Jun	955	701	815	886	OFF	974	1100
19-Jun	971	796	800	845	OFF	922	1100
20-Jun	1064	776	839	647	OFF	987	1100
21-Jun	1049	797	814	592	OFF	932	1100
22-Jun	1034	889	875	836	OFF	980	1100
23-Jun	1068	849	837	872	OFF	934	1100
24-Jun	921	848	853	801	OFF	1042	1100
25-Jun	1042	746	811	824	OFF	969	1100
26-Jun	939	733	820	925	OFF	1022	1100
27-Jun	1036	740	825	994	OFF	1033	1100
28-Jun	1026	739	878	863	OFF	1002	1100
29-Jun	1077	714	824	888	OFF	1007	1100
30-Jun	964	695	863	882	OFF	1016	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
Jul-21	100.00%	0.0	100.00%	0.0	99%	0.8	100.00%	0.0	100.00%	0.0	100.00%	0.0
Aug-21	99.33%	0.8	100.00%	0.0	99%	0.9	100.00%	0.0	100.00%	0.0	100.00%	0.0
Sep-21	95.94%	1.0	96.00%	1.0	95.98%	1.0	95.97%	1.0	100.00%	0.0	OFF	OFF
Oct-21	97.32%	3.3	99.36%	0.8	99.33%	0.8	100.00%	0.0	100.00%	0.0	OFF	OFF
Nov-21	100.00%	0.0	100.00%	0.0	100.00%	0.0	96.26%	0.6	95.79%	1.2	100.00%	0.0
Dec-21	99.44%	0.7	OFF	OFF	98.24%	2.2	98.02%	2.5	100.00%	0.0	100.00%	0.0
Jan-22	98.50%	1.9	OFF	OFF	99.32%	0.8	100.00%	0.0	100.00%	0.0	100.00%	0.0
Feb-22	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	98.54%	1.6
Mar-22	98.73%	1.6	98.70%	1.6	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0
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

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
Jul-21	100.00%	0.0	100.00%	0.0	91.05%	2.7743056	100.00%	0.0	100.00%	0.0	100.00%	0.0
Aug-21	100.00%	0.0	47.45%	16.3	100.00%	0.0	100.00%	0.3	100.00%	0.0	100.00%	0.0
Sep-21	100.00%	0.0	71.12%	8.0		0.0	100.00%	0.0	100.00%	0.0	OFF	OFF
Oct-21	99.75%	0.1	100.00%	0.0	100.00%	0.0	100.00%	0.0	100.00%	0.0	OFF	OFF
Nov-21	100.00%	0.0	100.00%	0.0	100.00%	0.0	88.62%	2.5	100.00%	0.0	90.27%	2.0
Dec-21	97.72%	0.7	OFF	OFF	96.64%	1.0	97.18%	0.9	99.87%	0.0	100.00%	0.0
Jan-22	95.79%	1.3	OFF	OFF	83.10%	5.2	100.00%	0.0	100.00%	0.0	100.00%	0.0
Feb-22	99.40%	0.2	85.42%	4.1	97.47%	0.7	100.00%	0.0	100.00%	0.0	97.17%	0.8
Mar-22	87.77%	3.8	100.00%	0.0	100.00%	0.0	87.23%	4.0	100.00%	0.0	100.00%	0.0
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

**ADDENDUM TO MONTHLY EMISSIONS REPORT**

Particulate Emission Monitors

Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Jul-21	98.12%	99.60%	99.87%	99.04%	98.22%	99.06%
Aug-21	100.00%	99.60%	99.60%	99.36%	100.00%	100.00%
Sep-21	98.61%	96.91%	99.03%	99.54%	99.72%	OFF
Oct-21	95.51%	99.06%	99.46%	99.87%	99.87%	OFF
Nov-21	99.60%	99.54%	99.86%	99.00%	98.61%	99.80%
Dec-21	98.39%	OFF	96.12%	96.81%	99.87%	100.00%
Jan-22	98.66%	OFF	99.19%	99.87%	99.70%	100.00%
Feb-22	98.28%	95.56%	99.67%	100.00%	99.85%	99.40%
Mar-22	94.33%	95.83%	95.56%	99.67%	98.38%	98.79%
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	91.94%	98.47%	99.50%	99.20%	OFF	99.14%

## 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>
Jul-21	99.73%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.66%	98.66%	98.79%	98.92%
Aug-21	89.25%	89.78%	99.60%	99.73%	99.73%	99.73%	100.00%	100.00%	99.87%	99.87%	95.27%	95.27%
Sep-21	99.58%	99.58%	99.55%	99.55%	99.58%	99.72%	99.70%	99.70%	99.58%	99.72%	OFF	OFF
Oct-21	99.52%	99.36%	99.73%	99.87%	99.87%	99.87%	99.73%	99.87%	100.00%	100.00%	OFF	OFF
Nov-21	99.62%	99.81%	94.79%	94.79%	100.00%	99.86%	99.84%	99.84%	100.00%	100.00%	99.81%	99.81%
Dec-21	97.85%	97.85%	OFF	OFF	91.28%	91.42%	100.00%	99.87%	100.00%	100.00%	99.87%	100.00%
Jan-22	99.87%	100.00%	0.00%	0.00%	99.87%	100.00%	99.87%	100.00%	99.72%	100.00%	99.48%	99.48%
Feb-22	100.00%	100.00%	100.00%	100.00%	99.85%	100.00%	99.40%	99.40%	99.26%	99.40%	99.55%	99.55%
Mar-22	98.30%	98.30%	98.92%	99.06%	99.06%	99.33%	99.84%	100.00%	98.88%	98.88%	98.79%	98.66%
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%

Oxygen Monitor Availability						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Jul-21	100.00%	99.87%	99.60%	99.52%	98.73%	98.79%
Aug-21	99.46%	99.87%	99.60%	100.00%	100.00%	95.45%
Sep-21	99.72%	99.13%	97.78%	99.55%	99.72%	OFF
Oct-21	99.84%	99.87%	97.04%	99.87%	99.73%	OFF
Nov-21	99.05%	89.58%	98.06%	100.00%	99.86%	99.81%
Dec-21	97.58%	OFF	91.28%	94.76%	99.86%	100.00%
Jan-22	100.00%	OFF	99.87%	98.25%	99.17%	99.22%
Feb-22	100.00%	100.00%	98.74%	99.55%	99.40%	99.55%
Mar-22	98.30%	98.92%	99.19%	99.84%	98.88%	98.52%
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%

### ADDENDUM TO MONTHLY EMISSIONS REPORT

#### 14. EFFICIENCY

ESP Efficiency (%)						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Jul-21	99.916%	99.756%	99.819%	99.879%	99.887%	99.838%
Aug-21	99.894%	99.656%	99.810%	99.759%	99.883%	99.864%
Sep-21	99.836%	99.567%	99.756%	99.855%	99.873%	OFF
Oct-21	99.752%	99.776%	99.789%	99.800%	99.823%	OFF
Nov-21	99.870%	99.743%	99.780%	99.798%	99.820%	99.831%
Dec-21	99.834%	OFF	99.744%	99.757%	99.837%	99.864%
Jan-22	99.845%	OFF	99.765%	99.807%	99.788%	99.834%
Feb-22	99.825%	99.561%	99.743%	99.823%	99.839%	99.745%
Mar-22	99.725%	99.623%	99.726%	99.768%	99.862%	99.816%
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	99.765%	99.704%	99.827%	99.654%	OFF	99.774%

15. REMARKS

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
1	115	AM: High stack emissions.	2022/06/01 08:48:00	2022/06/01 10:05:00
1	216	AM: High stack emissions	2022/06/01 10:05:00	2022/06/01 16:36:00
1	215	High stack emissions.	2022/06/01 19:23:00	2022/06/02 00:00:00
1	216	Clean rapping test.	2022/06/02 00:00:00	2022/06/02 05:47:00
1	213	EF: High stack emissions	2022/06/03 10:20:00	2022/06/03 16:21:00
1	218	High stack emissions	2022/06/03 19:55:00	2022/06/04 00:00:00
1	118	AM: LHI Precip casing repairs.	2022/06/04 00:00:00	2022/06/05 00:00:00
1	115	EF: High stack emissions	2022/06/07 20:43:00	2022/06/08 00:49:00
1	216	High stack emissions.	2022/06/12 15:12:00	2022/06/13 00:00:00
1	115	EF: high stack emissions.	2022/06/14 23:54:00	2022/06/15 20:22:00
1	68	high stack emissions.	2022/06/16 13:06:00	2022/06/16 15:50:00
1	114	EF: High stack emissions	2022/06/17 11:41:00	2022/06/17 16:28:00
1	117	EF: High stack emissions	2022/06/17 20:06:00	2022/06/17 21:35:00
1	216	High stack emissions.	2022/06/19 12:55:00	2022/06/19 16:56:00
1	218	High stack emissions	2022/06/19 19:27:00	2022/06/20 00:01:00
1	218	High hopper levels	2022/06/21 11:02:00	2022/06/21 16:08:00
1	221	EF: High stack emissions	2022/06/22 10:12:00	2022/06/22 15:52:00
1	110	LHO Precip casing repairs	2022/06/23 23:13:00	2022/06/24 23:13:00
1	114	High stack emissions	2022/06/26 01:46:00	2022/06/27 00:25:00
1	116	High stack emissions.	2022/06/28 12:59:00	2022/06/28 13:41:00
1	120	Emission test.	2022/06/30 00:01:00	2022/06/30 05:42:00
2	593	Manually tripped due to Turbine malfunction	2022/06/04 10:30:00	2022/06/04 14:27:00
2	297	System Generated Ramp Event for Event id : 1698216	2022/06/04 14:27:00	2022/06/04 15:57:00
2	509	Turbine control tests	2022/06/04 15:57:00	2022/06/04 17:58:00
2	98	EF: High stack emissions	2022/06/08 20:22:00	2022/06/08 23:31:00
2	200	EF: Emission test.	2022/06/16 00:02:00	2022/06/16 05:04:00
2	150	High stack emissions.	2022/06/16 09:21:00	2022/06/16 20:09:00
2	184	High stack emissions.	2022/06/16 20:09:00	2022/06/17 00:12:00
2	100	AM: RHI precip casing repairs	2022/06/18 00:03:00	2022/06/18 20:41:00
2	50	High stack emissions.	2022/06/19 12:14:00	2022/06/19 16:50:00
2	50	High stack emissions.	2022/06/21 19:19:00	2022/06/21 23:57:00
2	98	EF: High stack emissions	2022/06/23 11:28:00	2022/06/23 15:52:00
2	98	high stack emissions	2022/06/23 20:15:00	2022/06/23 21:31:00
2	149	High stack emissions	2022/06/23 21:31:00	2022/06/24 00:08:00
2	53	High stack emissions.	2022/06/24 12:53:00	2022/06/24 15:46:00
2	100	LHO Precip casing repairs	2022/06/25 00:02:00	2022/06/25 06:37:00
2	98	High stack emissions.	2022/06/27 08:26:00	2022/06/27 16:19:00
2	100	High stack emissions.	2022/06/28 21:45:00	2022/06/29 00:11:00
2	99	High stack emissions.	2022/06/29 12:23:00	2022/06/29 15:50:00
2	200	High stack emissions.	2022/06/29 20:25:00	2022/06/30 00:00:00
2	100	high stack emissions.	2022/06/30 10:28:00	2022/06/30 15:42:00
2	50	high stack emissions.	2022/06/30 15:42:00	2022/06/30 19:10:00
2	100	High stack emissions.	2022/06/30 19:10:00	2022/06/30 19:43:00
2	200	High stack emissions.	2022/06/30 19:43:00	2022/06/30 23:59:59
3	593	Unit tripped due to Both FD fans tripping	2022/06/08 09:47:00	2022/06/08 12:02:00
3	297	System Generated Ramp Event for Event id : 1700015	2022/06/08 12:02:00	2022/06/08 13:32:00
3	593	Boiler tube leak repairs	2022/06/08 21:25:00	2022/06/13 02:15:00
3	297	System Generated Ramp Event for Event id : 1700226	2022/06/13 02:15:00	2022/06/13 05:15:00
3	117	EF: High stack emissions.	2022/06/14 19:23:00	2022/06/15 00:05:00
3	114	High stack emissions	2022/06/19 20:21:00	2022/06/20 00:01:00
3	67	High stack emissions.	2022/06/21 19:26:00	2022/06/21 23:57:00
3	68	High stack emissions	2022/06/22 20:09:00	2022/06/22 23:10:00
3	218	High stack emissions	2022/06/22 23:10:00	2022/06/23 03:56:00
3	119	High stack emissions	2022/06/23 03:56:00	2022/06/23 05:09:00
3	118	High stack emissions.	2022/06/28 21:36:00	2022/06/29 00:10:00

UNIT	MWLOSS	REASON	ACTUALSTARTDATE	ACTUALENDDATE
4	593	Boiler tube leak	2022/06/01 21:31:00	2022/06/04 13:36:00
4	593	System Generated Slip Event linked to PCLF Event : 1694709	2022/06/01 21:31:00	2022/06/04 13:36:00
4	297	System Generated Ramp Event for Event id : 1694709	2022/06/04 13:36:00	2022/06/04 16:36:00
4	190	EF: High stack emissions	2022/06/10 19:44:00	2022/06/11 00:00:00
4	190	AM: SO3 plant leak repairs	2022/06/11 00:00:00	2022/06/14 00:00:00
4	182	EF: Emission test.	2022/06/16 00:02:00	2022/06/16 08:32:00
4	78	High stack emissions.	2022/06/16 11:43:00	2022/06/16 16:15:00
4	178	High stack emissions.	2022/06/16 16:15:00	2022/06/16 19:15:00
4	199	High stack emissions.	2022/06/16 19:15:00	2022/06/17 00:12:00
4	178	EF: High stack emissions	2022/06/19 11:07:00	2022/06/22 10:04:00
4	200	High stack emissions	2022/06/23 20:58:00	2022/06/24 05:26:00
4	189	High stack emissions.	2022/06/24 08:38:00	2022/06/24 16:02:00
4	169	AM: High stack emissions	2022/06/25 04:28:00	2022/06/25 16:43:00
4	168	EF: High stack emissions	2022/06/25 18:24:00	2022/06/25 19:55:00
4	191	EF: High stack emissions	2022/06/25 19:55:00	2022/06/26 00:28:00
5	593	G.O.	2022/06/01 00:00:00	2022/06/30 23:59:59
6	593	Unit tripped on Boiler drum level low.	2022/06/01 20:09:00	2022/06/02 00:29:00
6	297	System Generated Ramp Event for Event id : 1697248	2022/06/02 00:29:00	2022/06/02 01:59:00
6	118	RHO precip casing repairs.	2022/06/05 00:02:00	2022/06/06 00:00:00
6	52	High stack emissions	2022/06/06 19:54:00	2022/06/07 00:13:00
6	118	RHO precip casing repairs	2022/06/19 00:00:00	2022/06/19 23:10:00
6	118	High stack emission	2022/06/21 12:52:00	2022/06/21 15:42:00
6	217	High stack emissions.	2022/06/21 19:11:00	2022/06/22 00:14:00
6	217	EF: High stack emissions	2022/06/25 20:18:00	2022/06/25 22:32:00
6	238	EF: High stack emissions	2022/06/25 22:32:00	2022/06/25 23:58:00
6	120	High stack emissions	2022/06/25 23:58:00	2022/06/26 00:31:00
6	118	LHO Precip casing repairs	2022/06/25 23:58:00	2022/06/26 23:55:00
6	54	EF: High stack emissions	2022/06/30 20:30:00	2022/06/30 20:47:00
6	118	EF: High stack emissions	2022/06/30 20:47:00	2022/06/30 21:23:00
6	218	EF: High stack emissions	2022/06/30 21:23:00	2022/06/30 23:59:59

PM Exceedances		
U1.	ESP Poor Performance	02-Jun
U1.	ESP Poor Performance	03-Jun
U1.	LHI Casing outage	04-Jun
U1.	Common Sulphur line was worked on so SO3 plant was off	09-Jun
U1.	Esp Poor Performance	10-Jun
U1.	ESP Poor Performance and manual rapping	13-Jun
U1.	LHO casing outages	14-Jun
U1.	ESP Poor Performance	15-Jun
U1.	ESP Poor Performance	17-Jun
U1.	ESP Poor performance	18-Jun
U1.	ESP Poor performance and 10 High hopper levels	20-Jun
U1.	ESP poor performance and 17 high hopper levels	21-Jun
U1.	ESP poor performance	23-Jun
U1.	ESP Poor Performance	24-Jun
U1.	LHO ESP casing outage	25-Jun
U1.	ESP poor performance & Sulphur flow is not corresponding to boiler load	27-Jun
U1.	ESP poor performance & Sulphur flow is not corresponding to boiler load	28-Jun
U1.	ESP poor performance & Sulphur flow is not corresponding to boiler load	29-Jun
U2.	ESP Poor Performance	02-Jun
U2.	ESP poor Performance	03-Jun
U2.	ESP Poor Performance	05-Jun
U2.	SO3 Plant: Unit exceeded due to flow control which could not be put on auto, once it is placed on auto the flow was lost. C&I reported that the plant tripped on comms fault and not the flow issue	07-Jun
U2.	Common Sulphur line was worked on so SO3 plant was off	09-Jun
U2.	ESP Poor Performance	10-Jun
U2.	ESP Poor Performance	13-Jun
U2.	ESP Poor Performance	14-Jun
U2.	LHO casing outage	15-Jun
U2.	ESP Poor Performance	17-Jun
U2.	RHI Casing on PTW	18-Jun
U2.	ESP Poor Performance and manual rapping	19-Jun
U2.	ESP poor performance and high hopper levels	22-Jun
U2.	ESP poor performance	24-Jun
U2.	ESP Poor Performance	25-Jun
U2.	ESP Poor Performance	26-Jun
U2.	ESP Poor Performance	28-Jun
U2.	ESP Poor Performance	29-Jun

U3.	Unit Off for Boiler Tube Leak	09-Jun
U3.	Unit synchronised on 2022/06/13 @ 02:14 – PM emissions need to be below the limit on 2022/06/16 @ 02:14	13-Jun
U3.	ESP poor performance	23-Jun
U4.	The Unit synchronized on 2022/06/04 at 13:36. PM emissions need to be below the limit by 2022/06/07 at 13:36 and remain below the limit until 2022/06/08 at 23:59 to ensure clear break in start up and upset conditions.	05-Jun
U4.	Unit Light up	06-Jun
U4.	Common Sulphur line was worked on so SO3 plant was off	09-Jun
U4.	SO3 Plant off for repairs	13-Jun
U4.	SO3 plant off for repairs	14-Jun
U4.	SO3 plant off for repairs	15-Jun
U4.	SO3 plant issues, plant purged @ 20:20 and placed on cooling	17-Jun
U4.	SO3 Plant off to repair flow meter and flow control valve	18-Jun
U4.	SO3 Plant off for repairs	19-Jun
U4.	SO3 plant off for repairs and manual rapping	22-Jun
U4.	SO3 plant off for repairs and manual rapping	23-Jun
U4.	SO3 plant not dosing	24-Jun
U4.	S30 reported	25-Jun
U6.	RHO Casing outage	05-Jun
U6.	Common Sulphur line was worked on so SO3 plant was off	09-Jun
U6.	ESP poor Performance and manual rapping	13-Jun
U6.	ESP Poor performance	17-Jun
U6.	RHO precip casing outage	19-Jun
U6.	ESP poor performance	20-Jun
U6.	ESP poor performance	23-Jun
U6.	ESP poor performance	24-Jun
U6.	ESP Poor Performance	26-Jun
U6.	ESP Poor Performance	30-Jun