

**KOMATI POWER STATION MONTHLY EMISSIONS REPORT**

Atmospheric Emission License 17/4/AEL/MP313/12/12


**1 RAW MATERIALS AND PRODUCTS**

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Aug 2022
	Coal	Tons	460 000	24 906
	Fuel Oil	Tons	5 000	0
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Aug-2022
	Energy	GWh	707	41
	Ash	Tons	160 000	17
	RE PM	kg/MWh	0.29	0.41

## 2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	16-24	22.933
Sulphur Content	%	<= 1.2	0.587
Ash Content	%	<= 33	22.057

## 3 EMISSION LIMITS (mg/Nm<sup>3</sup>)

Associated Unit/Stack	PM	SOx	NOx
East	100	3500	1300
West	100	3500	1300

## 4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Aug-2022	Technology Type	Utilisation Aug-2022
Unit 1	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 2	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 3	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 4	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 5	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 6	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 7	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 8	Electro Static Precipitators (ESP)	Unit Off-line	SO <sub>3</sub> Plant Utilisation	Unit Off-line
Unit 9	Electro Static Precipitators (ESP)	99.7%	SO <sub>3</sub> Plant Utilisation	0.0

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

## 5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	CO <sub>2</sub>	O <sub>2</sub>	Temp
East						
West	100.0	93.6	98.6	95.3	96.1	100.0

## 6 EMISSION PERFORMANCE

Table 4: Monthly tonnages for the month of August-2022

Associated Unit/Stack	PM (tons)	SO <sub>2</sub> (tons)	NO <sub>2</sub> (tons)	CO <sub>2</sub> (tons)
1	0.0	0.0	0.0	0
2	0.0	0.0	0.0	0
3	0.0	0.0	0.0	0
4	0.0	0.0	0.0	0
5	0.0	0.0	0.0	0
6	0.0	0.0	0.0	0
7	0.0	0.0	0.0	0
8	0.0	0.0	0.0	0
9	17.2	287.9	373.5	54 634
<b>SUM</b>	<b>17.2</b>	<b>287.9</b>	<b>373.5</b>	<b>54 634</b>

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

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
East	0	0	0	0	0	
West	19	1	0	0	1	55.3
<b>SUM</b>	<b>19</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	





Table 6.3: Operating days in compliance to SOx AEL Limit - August 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average SOx (mg/Nm <sup>3</sup> )
East	0	0	0	0	0	
West	21	0	0	0	0	879.8
<b>SUM</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

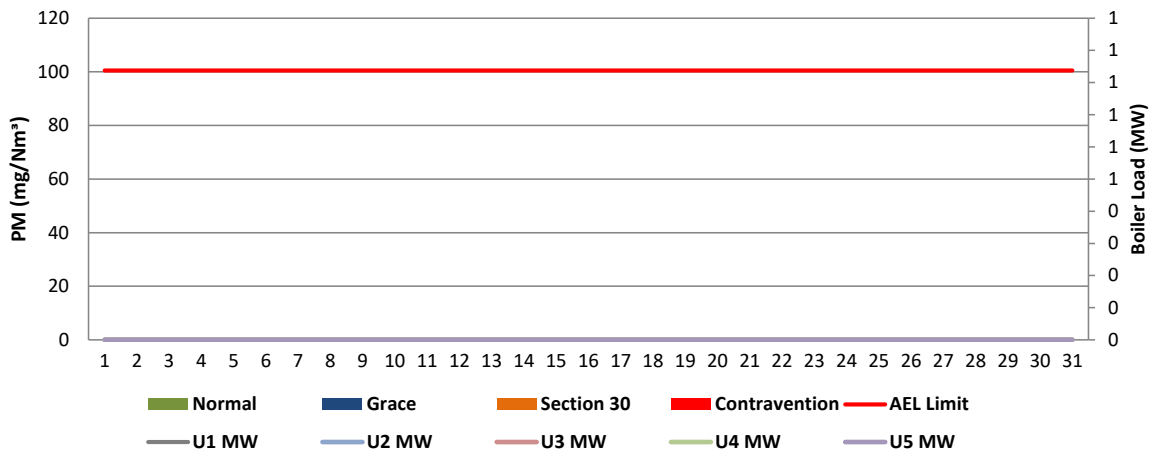
Table 6.4: Operating days in compliance to NOx AEL Limit - August 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contraven- tion	Total Exceedance	Average NOx (mg/Nm <sup>3</sup> )
East	0	0	0	0	0	
West	21	0	0	0	0	1 125.7
<b>SUM</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

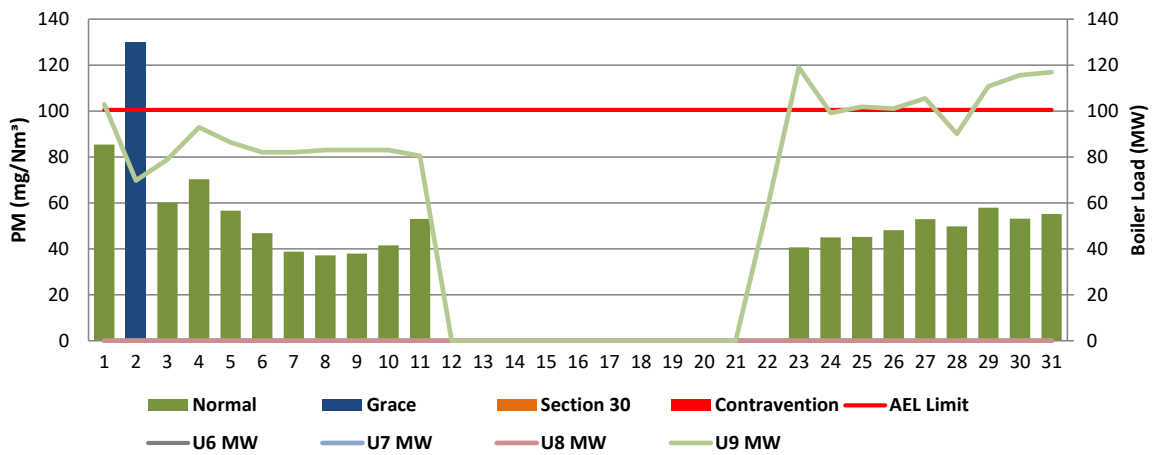
Table 6.5: Legend Description

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

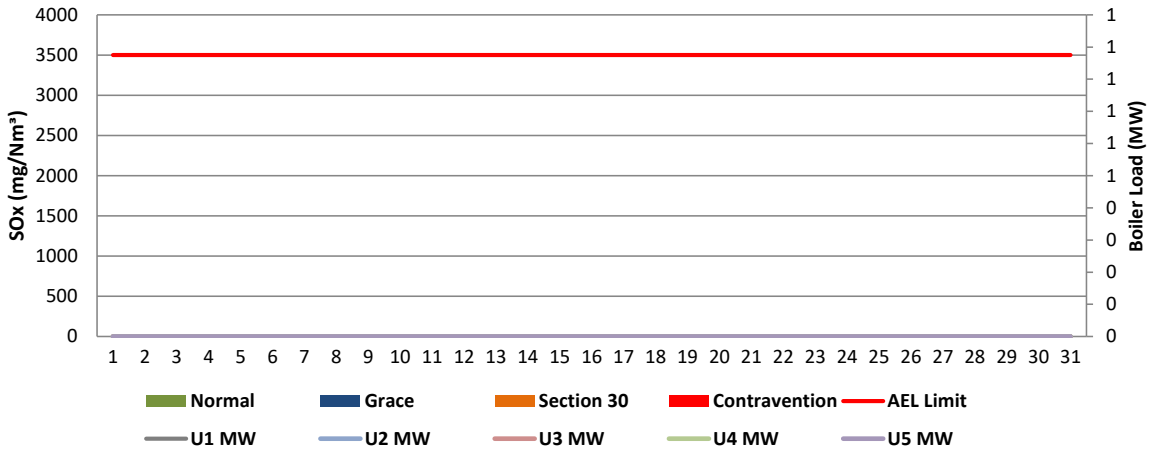
**Figure 1: Komati East Stack PM Emissions - August 2022**



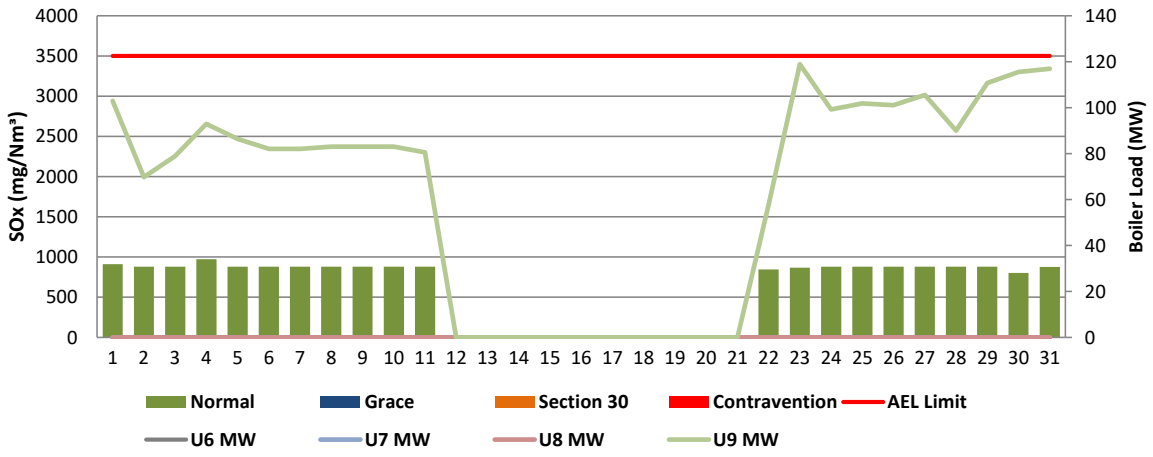
**Figure 2: Komati West Stack PM Emissions - August 2022**



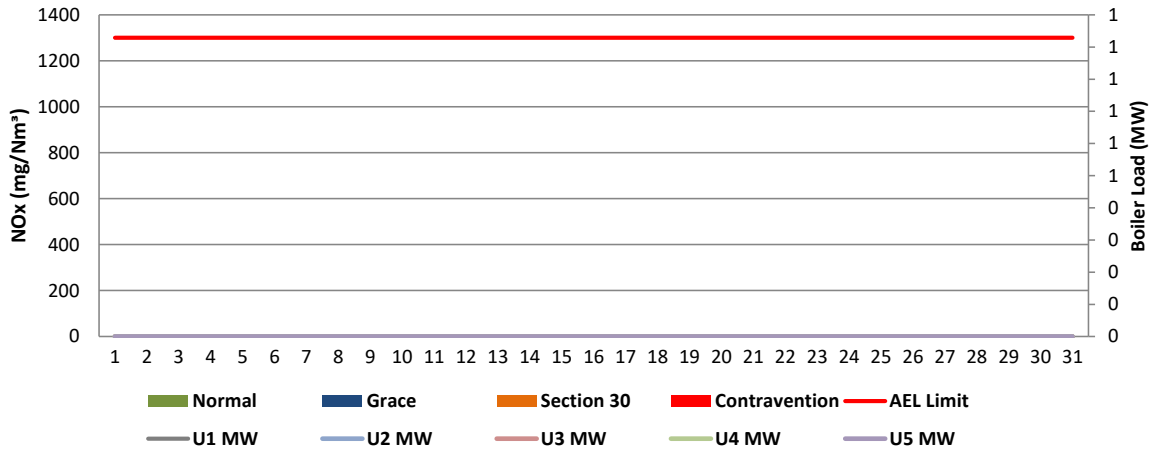
**Figure 3: Komati East Stack SOx Emissions - August 2022**



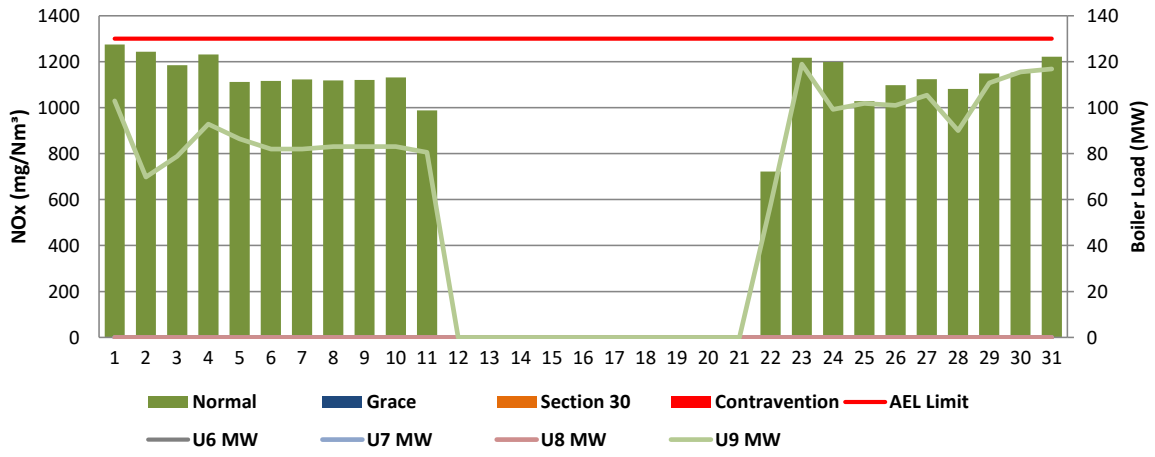
**Figure 4: Komati West Stack SOx Emissions - August 2022**



**Figure 5: Komati East Stack NOx Emissions - August 2022**



**Figure 6: Komati West Stack NOx Emissions - August 2022**



**7 SHUT DOWN AND LIGHT UP INFORMATION**

Table 6.1. PM Start-up information for the month of August-2022

East Stack	<i>Event 1</i>		<i>Event 2</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<i>no event</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		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		DD:HH:MM		DD:HH:MM

East Stack ...continued	<i>Event 5</i>		<i>Event 6</i>		<i>Event 7</i>		<i>Event 8</i>	
Unit No.	<i>no event</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		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		DD:HH:MM		DD:HH:MM

West Stack	<i>Event 1</i>		<i>Event 2</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<i>no event</i>		<i>Unit</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)	<i>10:10 PM</i>	<i>2022/08/11</i>	<i>BO previously</i>	<i>BO previously</i>				
Draught Group (DG) Shut Down (SD)	<i>5:10 AM</i>	<i>2022/08/12</i>	<i>n/a</i>	<i>n/a</i>				
BO to DG SD (duration)	<i>00:07:00</i>	DD:HH:MM	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time			<i>4:05 AM</i>	<i>2022/08/22</i>				
Synch. to Grid (or BC)			<i>6:00 PM</i>	<i>2022/08/22</i>				
Fires in to BC (duration)		DD:HH:MM	<i>00:13:55</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)			<i>not &gt; limit</i>	<i>not &gt; limit</i>				
Emissions below limit from BC (duration)		DD:HH:MM	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM

West Stack ...continued	<i>Event 5</i>		<i>Event 6</i>		<i>Event 7</i>		<i>Event 8</i>	
Unit No.	<i>no event</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		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		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-2022 in mg/Nm<sup>3</sup>

[Include reference to once off test showing typical emissions rates during fires in and SD]



Remember to add attachments here; see ReportAddendum Tab

Reserved for Addendum XXXX

