

GROOTVLEI POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License GPS/0015/2015/F02


1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Maximum Permitted Consumption Rate	Consumption Rate Jul-2021
	Coal	650 000	130 261.4
	Fuel Oil	20 000	2326.894
Production Rates	Product / By-Product Name	Maximum Production Capacity Permitted	Production Rate Jul-2021
	Energy	833.28	209.60
	Ash	300 000	36 499
	RE PM	not specified	0.03

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.6 to < 1.2	0.86
Ash Content	%	27 to < 32	28.02
Fuel oil	%	Not available	Not available

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO
North	100	3500	1100
South	100	3500	1100

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type
Unit 1	<i>Fabric Filter Plant (FFP)</i>
Unit 2	<i>Fabric Filter Plant (FFP)</i>
Unit 3	<i>Fabric Filter Plant (FFP)</i>
Unit 4	<i>Fabric Filter Plant (FFP)</i>
Unit 5	<i>Fabric Filter Plant (FFP)</i>
Unit 6	<i>Fabric Filter Plant (FFP)</i>

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

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂
North	100.0	99.2	99.7	100.0
South				

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of July-2021

Associated Unit/Stack	PM (tons)	SO ₂ (tons)	NO ₂ (tons)
Unit 1	3.23	694.9	303.0
Unit 2	0.34	170.3	72.7
Unit 3	2.01	492.6	202.6
Unit 4	0.00	0.0	0.0
Unit 5	0.00	0.0	0.0
Unit 6	0.00	0.0	0.0
SUM	5.58	1 357.7	578.2

Table 6.2: Operating days in compliance to PM AEL Limit - July 2021

Associated Unit/Stack	Normal	Grace	Section 30	Total Exceedance	Average PM (mg/Nm ³)
North	31	0	0	0	7.1
South	0	0	0	0	
SUM	31	0	0	0	

Table 6.3: Operating days in compliance to SO_x AEL Limit - July 2021

Associated Unit/Stack	Normal	Grace	Section 30	Total Exceedance	Average SO _x (mg/Nm ³)
North	31	0	0	0	1 475.4
South	0	0	0	0	
SUM	31	0	0	0	

Table 6.4: Operating days in compliance to NO_x AEL Limit - July 2021

Associated Unit/Stack	Normal	Grace	Section 30	Total Exceedance	Average NO _x (mg/Nm ³)
North	31	0	0	0	646.1
South	0	0	0	0	
SUM	31	0	0	0	

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: Grootvlei North Stack PM Emissions - July 2021

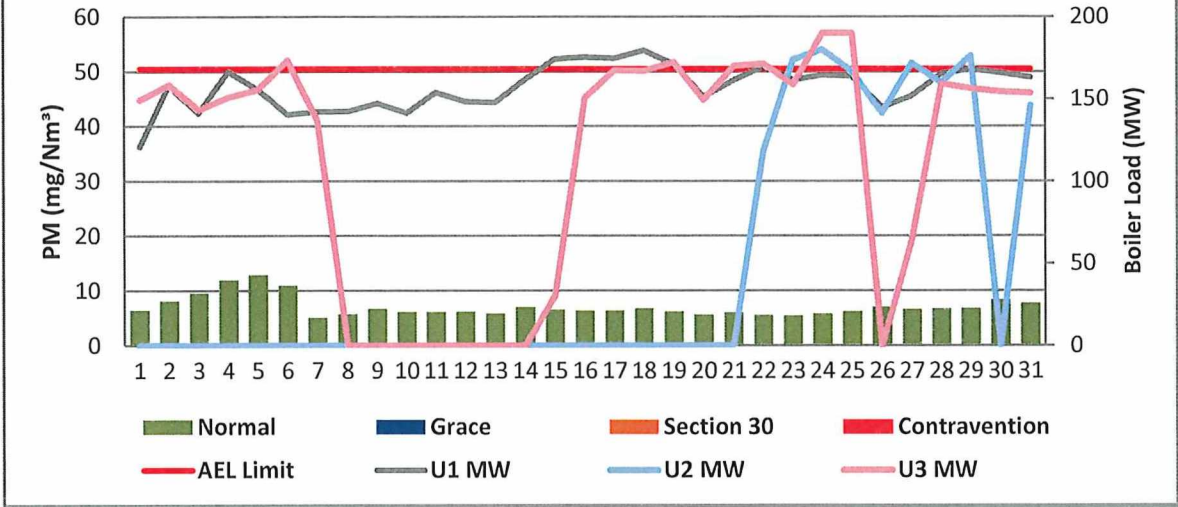


Figure 2: Grootvlei South Stack PM Emissions - July 2021

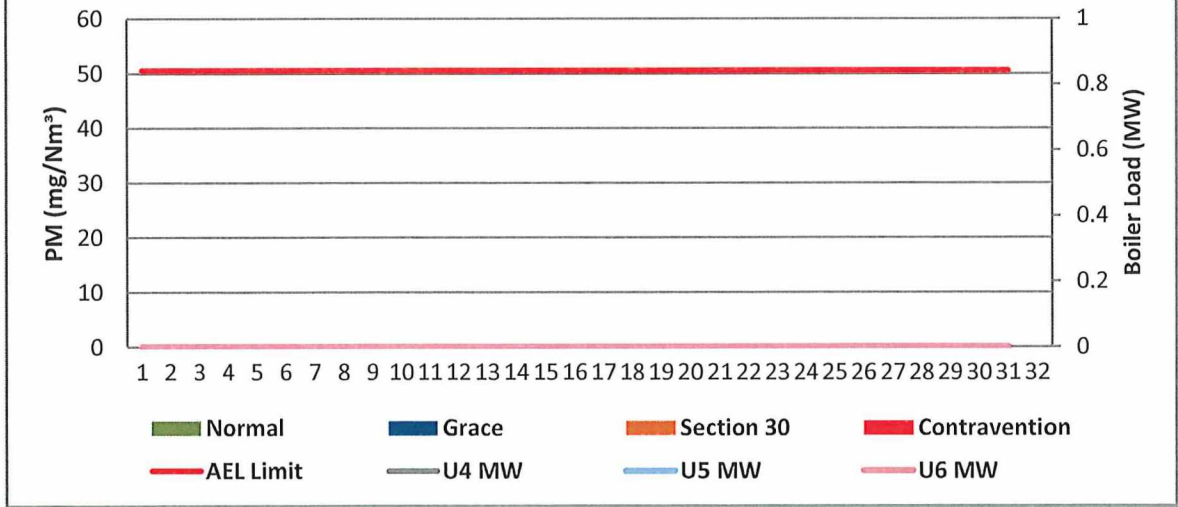


Figure 3: Grootvlei North Stack SOx Emissions - July 2021

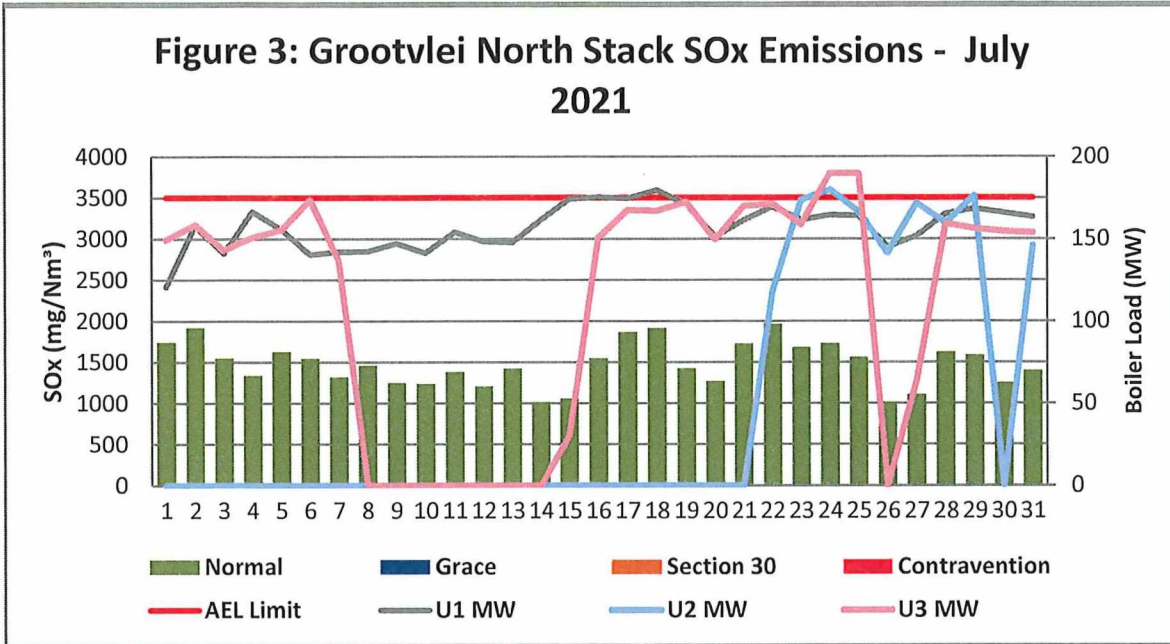


Figure 4: Grootvlei South Stack SOx Emissions - July 2021

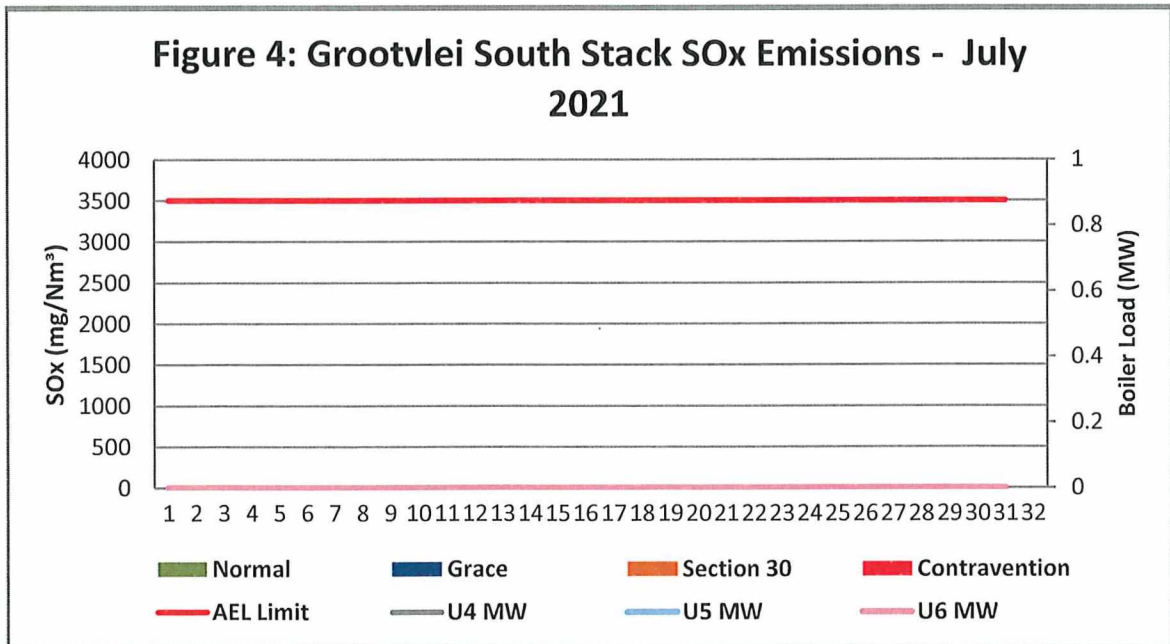


Figure 5: Grootvlei North Stack NOx Emissions - July 2021

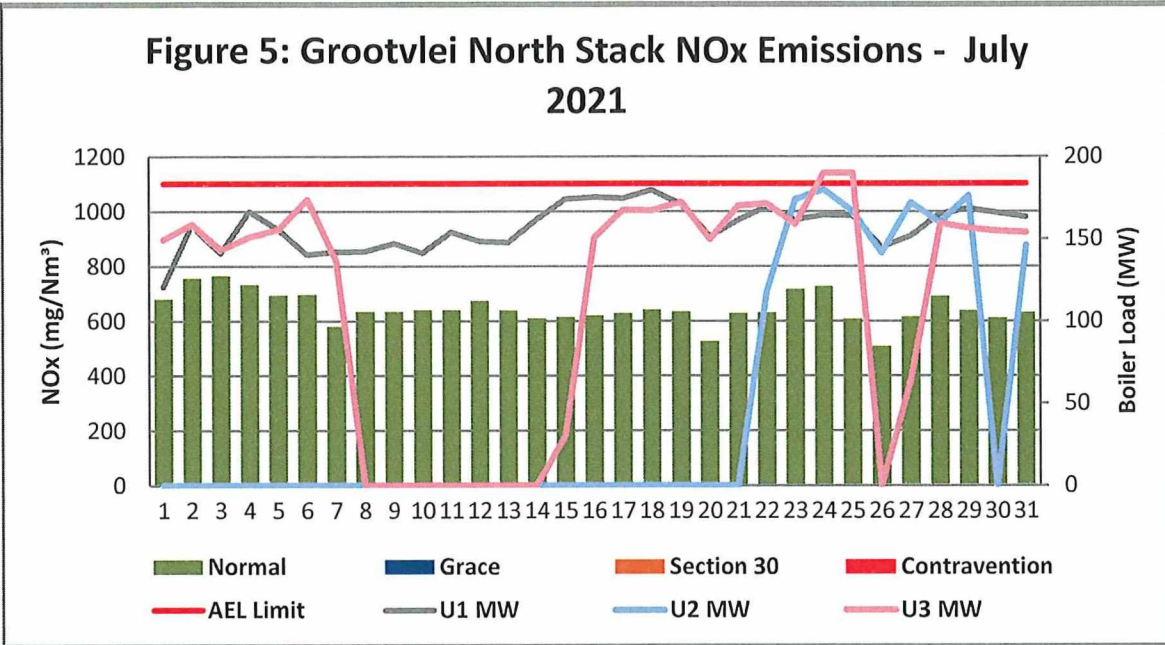
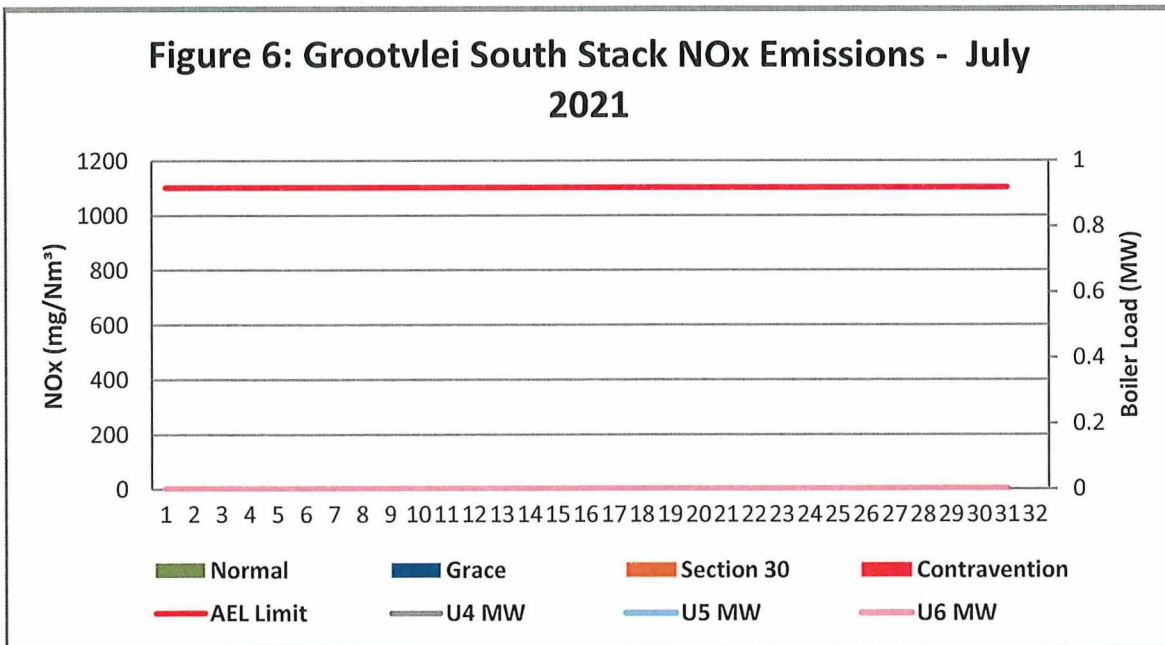


Figure 6: Grootvlei South Stack NOx Emissions - July 2021



7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1. PM Start-up information for the month of July-2021

North Stack	Event 1			Event 3		Event 4	
Unit No.	no event			Unit 2		Unit 2	
Breaker Open (BO)	<i>BO previously</i>	<i>BO previously</i>	<i>07/07/2021</i>	<i>9:10 am</i>	<i>23/07/2021</i>	<i>7:05 am</i>	<i>25/07/2021</i>
Draught Group (DG) Shut Down (SD)	<i>n/a</i>	<i>n/a</i>	<i>12/06/2021</i>	<i>2:45 pm</i>	<i>29/06/2021</i>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>
BO to DG SD (duration)	<i>n/a</i>	DD:HH:MM	DD:HH:MM	<i>#####</i>	DD:HH:MM	<i>n/a</i>	DD:HH:MM
Fires in time			<i>21/07/2021</i>	<i>7:00 am</i>	<i>22/07/2021</i>	<i>3:00 am</i>	<i>28/07/2021</i>
Synch. to Grid (or BC)			<i>22/07/2021</i>	<i>12:30 pm</i>	<i>26/07/2021</i>	<i>7:35 am</i>	<i>28/07/2021</i>
Fires in to BC (duration)		DD:HH:MM	DD:HH:MM	<i>04:05:30</i>	DD:HH:MM	<i>00:04:35</i>	DD:HH:MM
Emissions below limit from BC (end date)			<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>
Emissions below limit from BC (duration)		DD:HH:MM	DD:HH:MM	<i>n/a</i>	DD:HH:MM	<i>n/a</i>	DD:HH:MM

North Stack ...Cont.	Event 1			Event 3		Event 4	
Unit No.	Unit			Unit 3		Unit 3	
Breaker Open (BO)	<i>BO previously</i>	<i>BO previously</i>	<i>07/07/2021</i>	<i>9:10 am</i>	<i>23/07/2021</i>	<i>7:05 am</i>	<i>25/07/2021</i>
Draught Group (DG) Shut Down (SD)	<i>n/a</i>	<i>n/a</i>	<i>07/07/2021</i>	<i>DG did not trip or SD</i>	<i>DG did not trip or SD</i>	<i>7:25 am</i>	<i>25/07/2021</i>
BO to DG SD (duration)	<i>n/a</i>	DD:HH:MM	DD:HH:MM	<i>n/a</i>	DD:HH:MM	<i>00:00:20</i>	DD:HH:MM
Fires in time	<i>9:40 pm</i>	<i>30/07/2021</i>	<i>14/07/2021</i>	<i>9:10 am</i>	<i>23/07/2021</i>	<i>9:10 am</i>	<i>27/07/2021</i>
Synch. to Grid (or BC)	<i>5:20 am</i>	<i>31/07/2021</i>	<i>15/07/2021</i>	<i>2:25 pm</i>	<i>23/07/2021</i>	<i>8:20 pm</i>	<i>27/07/2021</i>
Fires in to BC (duration)	<i>00:07:40</i>	DD:HH:MM	DD:HH:MM	<i>00:05:15</i>	DD:HH:MM	<i>00:11:10</i>	DD:HH:MM
Emissions below limit from BC (end date)	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>	<i>not > limit</i>
Emissions below limit from BC (duration)	<i>n/a</i>	DD:HH:MM	DD:HH:MM	<i>n/a</i>	DD:HH:MM	<i>n/a</i>	DD:HH:MM

South Stack	<i>Event 1</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<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

South Stack ...Cont.	<i>Event 1</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<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 July-2021 in mg/Nm³

[[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

