



Generation

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Date: 2019/10/31

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MATLA POWER STATION

Atmospheric Emission License 17/4/AEL/MP312/11/14

BOILER ENGINEERING MANAGER

DATE

ENVIRONMENTAL MANAGER

DATE

ENGINEERING MANAGER

DATE

MATLA POWER STATION MONTHLY EMISSIONS REPORT

Atmospheric Emission License 17/4/AEL/MP312/11/14



1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Jul-2019
	Coal	Tons	1 475 000	969 426
	Fuel Oil	Tons	3 500	1 737

Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Jul-2019
	Energy	GWh	2 567	1 733
	Ash	Tons	471 000	261 260
	RE PM	kg/MWh	not specified	1.068

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
CV Content	MJ/kg	16-24	
Sulphur Content	%	0.8-1.1	1.00
Ash Content	%	21-40	26.95

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SO ₂	NO
South	200	3500	1200
Unit 4	200	3500	1200
Unit 5	100	3500	1200
Unit 6	100	3500	1200

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Jul-2019
South	<i>Electro Static Precipators (ESP)</i>	99.243%
Unit 4	<i>Electro Static Precipators (ESP)</i>	98.422%
Unit 5	<i>Electro Static Precipators (ESP)</i>	99.797%
Unit 6	<i>Electro Static Precipators (ESP)</i>	99.714%

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

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	PM	SO ₂	NO	CO ₂	O ₂
South	81.3	100.0	100.0		64.5
Unit 4	77.5	89.9	90.2		90.3
Unit 5	87.2	40.8	40.8		40.8
Unit 6	89.5	60.1	59.9		59.9

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of July-2019

Associated Unit/Stack	PM	SO _x	NO _x	CO ₂
Unit 1	283.0	2 483.5	1 097.4	
Unit 2	321.7	3 430.2	1 568.2	
Unit 3	357.0	3 741.8	1 709.4	
Unit 4	728.6	1 787.5	1 273.7	
Unit 5	38.7	984.7	276.0	
Unit 6	122.5	2 731.1	1 021.1	
SUM	1 851.6	15 158.8	6 945.8	

Table 6.2: Operating days in compliance to PM AEL Limit - July 2019

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)	Comments
South	13	4	14	0	18	197.0	
Unit 4	5	6	19	0	25	542.6	
Unit 5	13	1	0	0	1	58.5	
Unit 6	21	3	7	0	10	71.8	
SUM	52	14	40	0	54		

Table 6.3: Operating days in compliance to SOx AEL Limit - July 2019

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm ³)
South	31	0	0	0	0	2 071.4
Unit 4	31	0	0	0	0	1 292.0
Unit 5	16	0	0	0	0	1 689.5
Unit 6	31	0	0	0	0	1 665.6
SUM	109	0	0	0	0	

Table 6.4: Operating days in compliance to NOx AEL Limit - July 2019

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm ³)
South	31	0	0	0	0	945.8
Unit 4	31	0	0	0	0	919.5
Unit 5	16	0	0	0	0	463.3
Unit 6	31	0	0	0	0	619.4
SUM	109	0	0	0	0	

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
Contravention	Red	Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Matla South Stack PM Emissions - July 2019

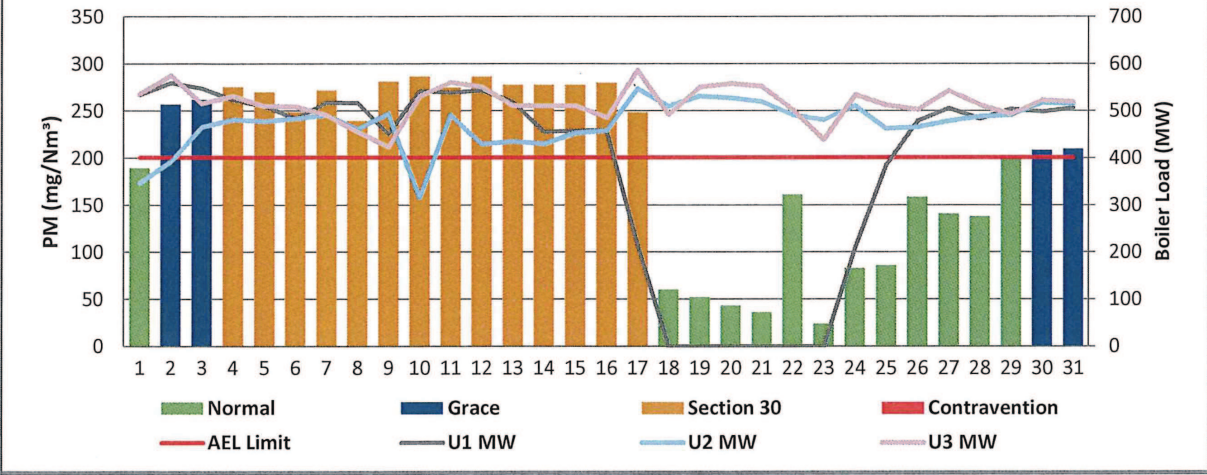


Figure 2: Matla Unit 4 PM Emissions - July 2019

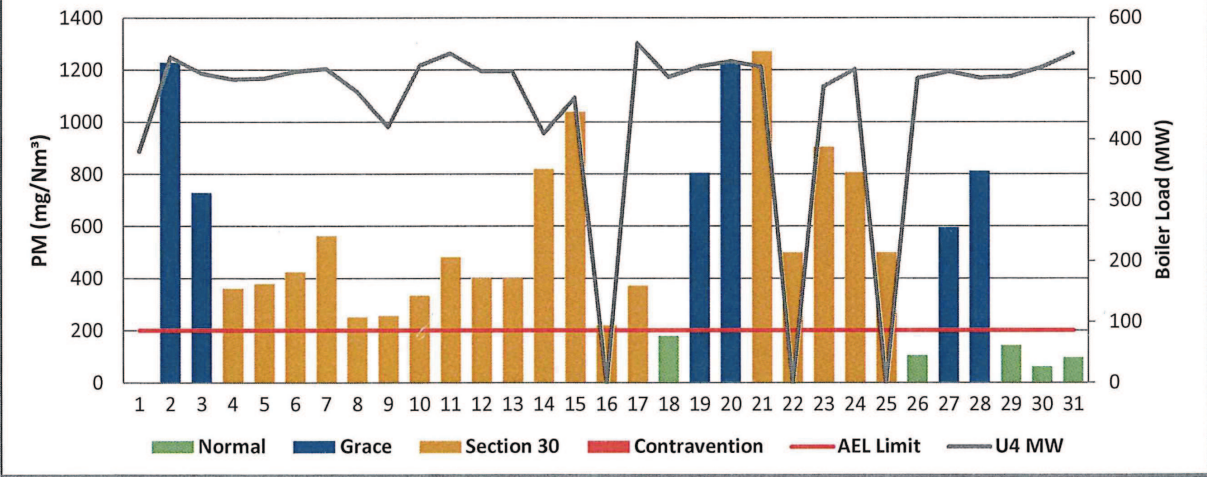


Figure 3: Matla Unit 5 PM Emissions - July 2019

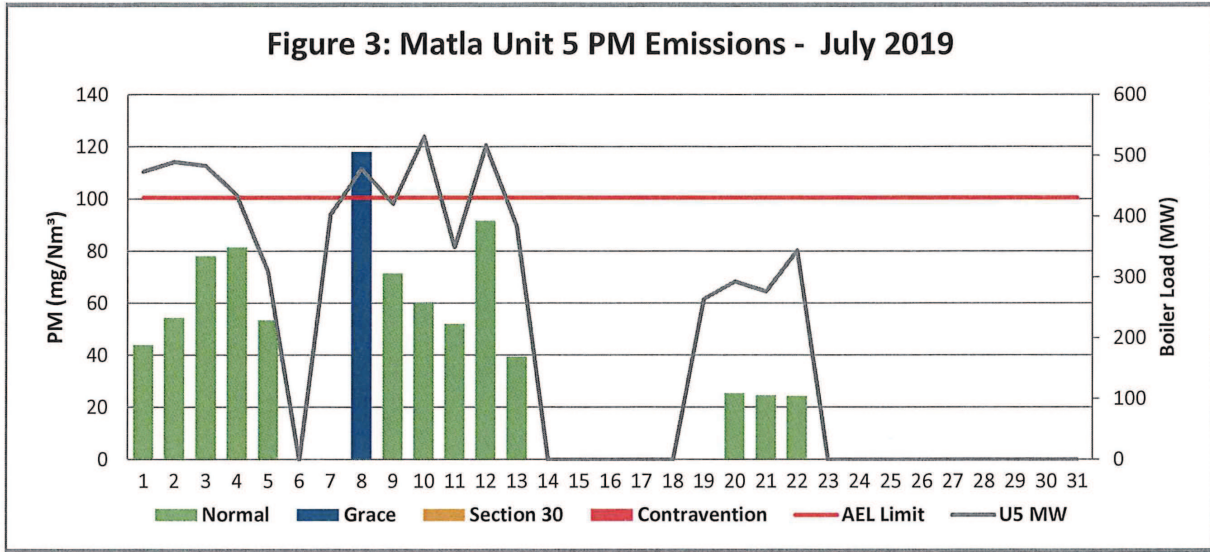


Figure 4: Matla Unit 6 PM Emissions - July 2019

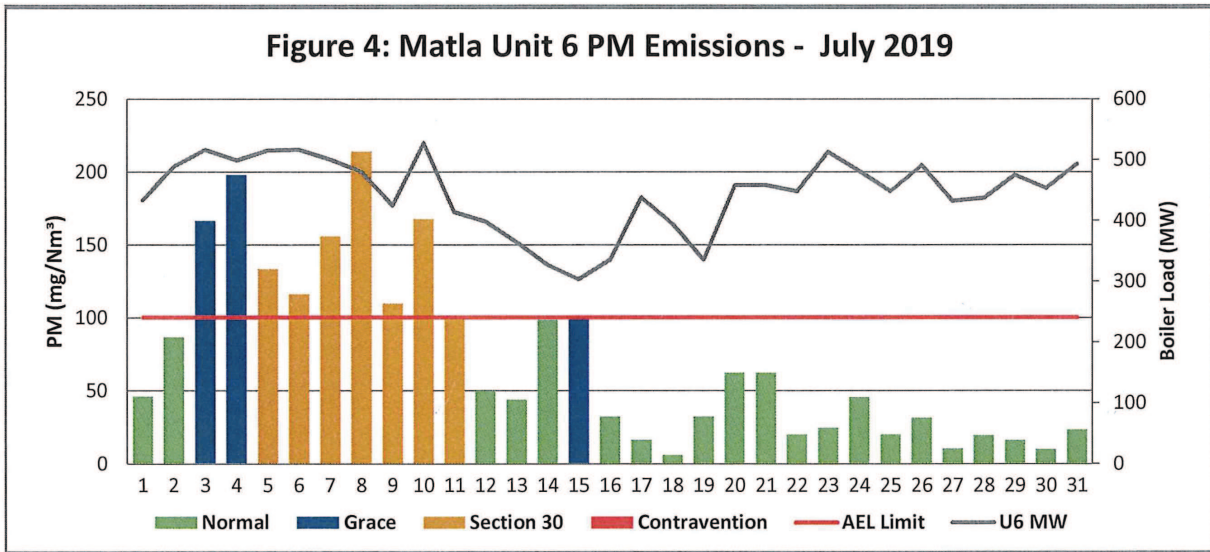


Figure 5: Matla South Stack SOx Emissions - July 2019

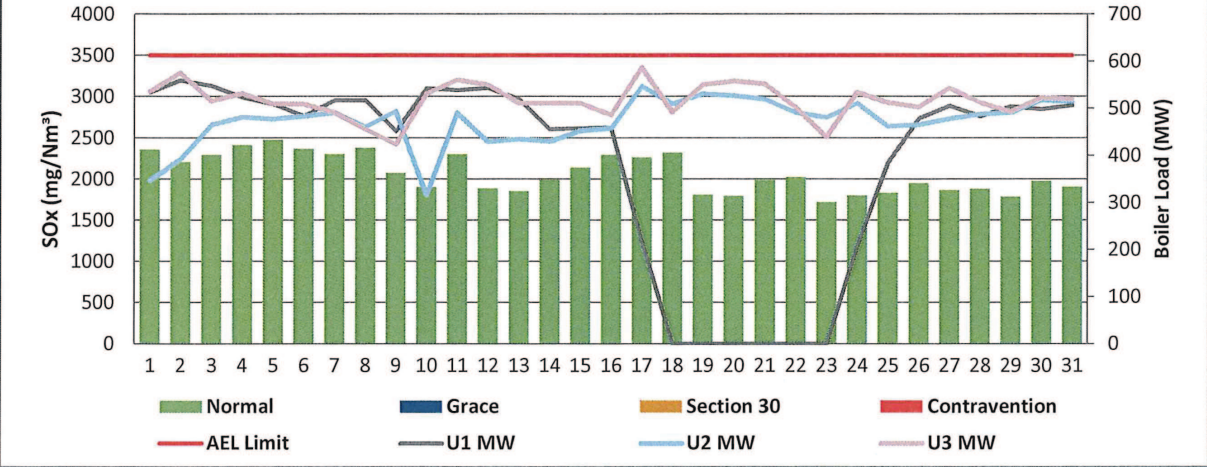


Figure 6: Matla Unit 4 SOx Emissions - July 2019

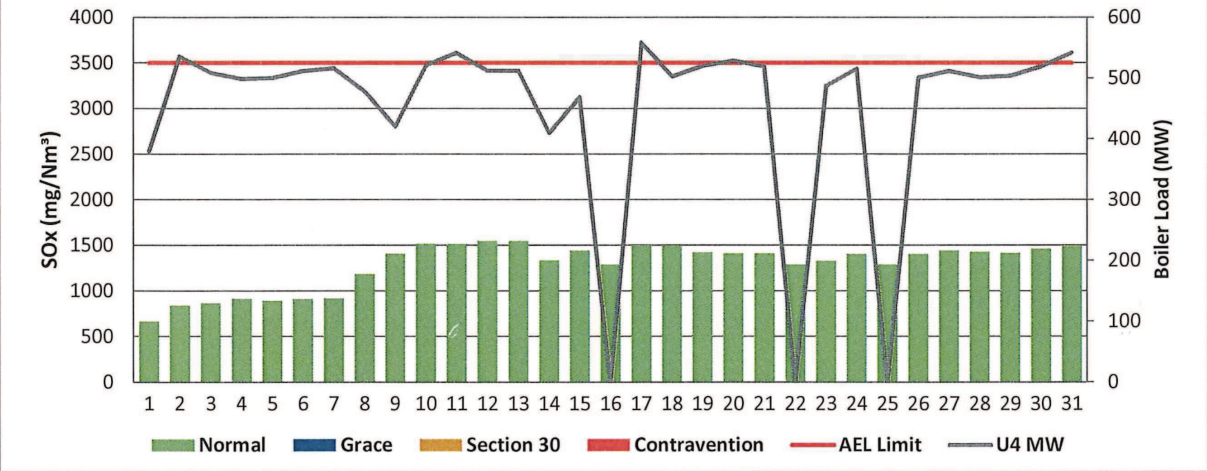


Figure 7: Matla Unit 5 SOx Emissions - July 2019

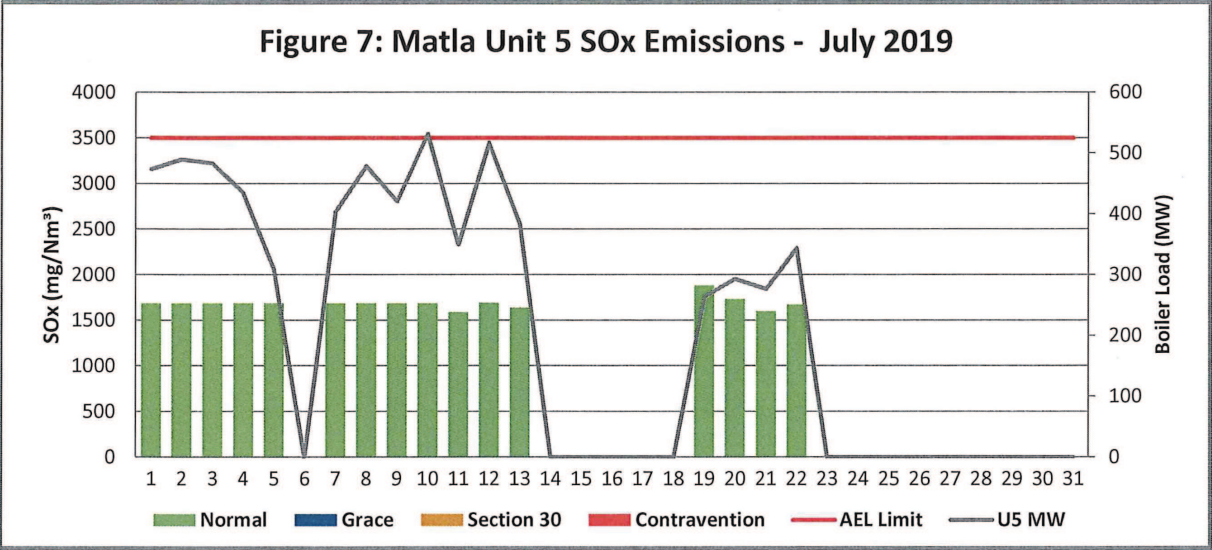


Figure 8: Matla Unit 6 SOx Emissions - July 2019

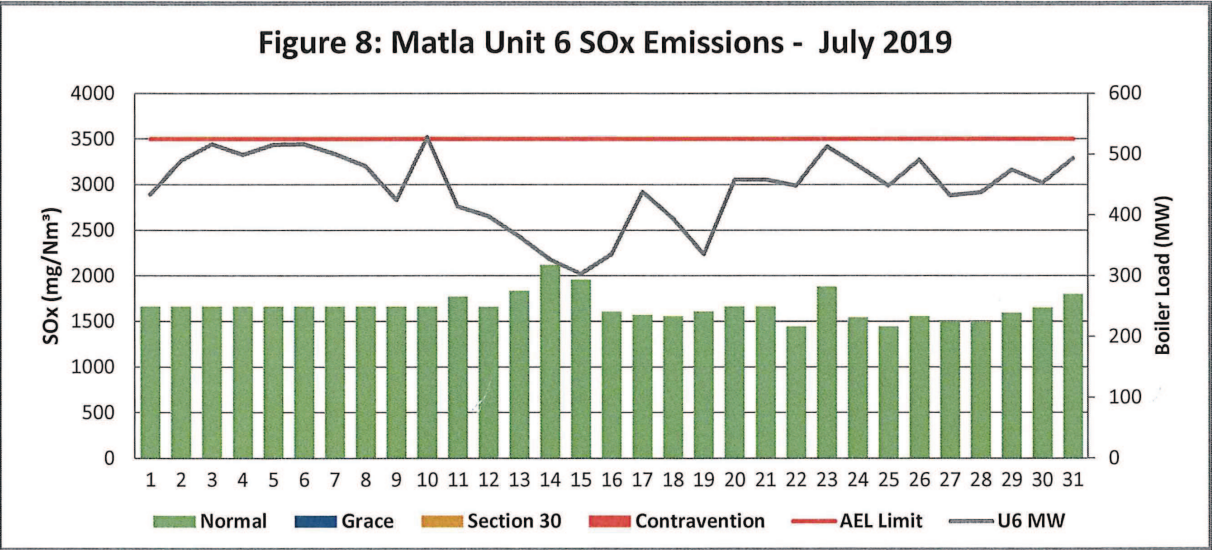


Figure 9: Matla South Stack NOx Emissions - July 2019

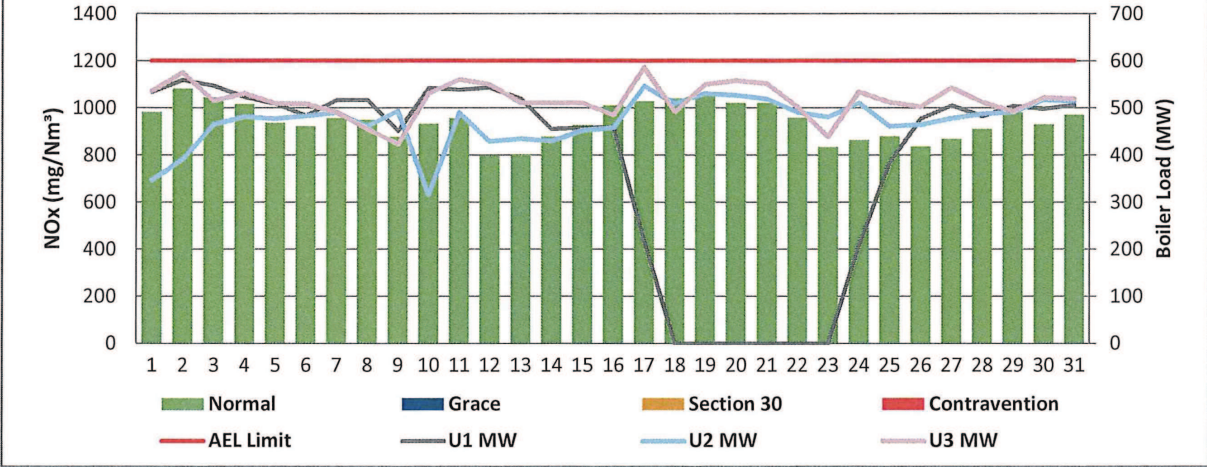


Figure 10: Matla Unit 4 NOx Emissions - July 2019

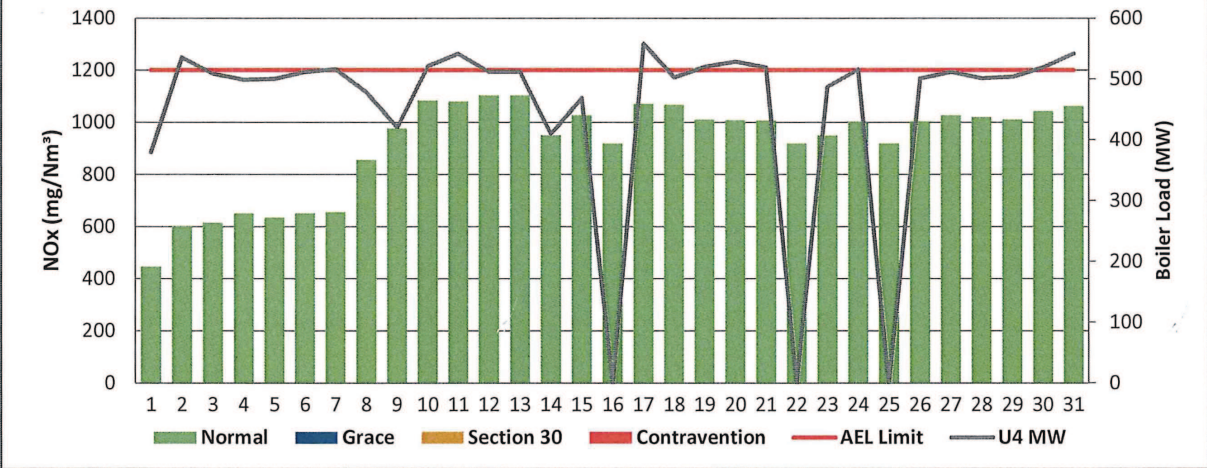


Figure 11: Matla Unit 5 NOx Emissions - July 2019

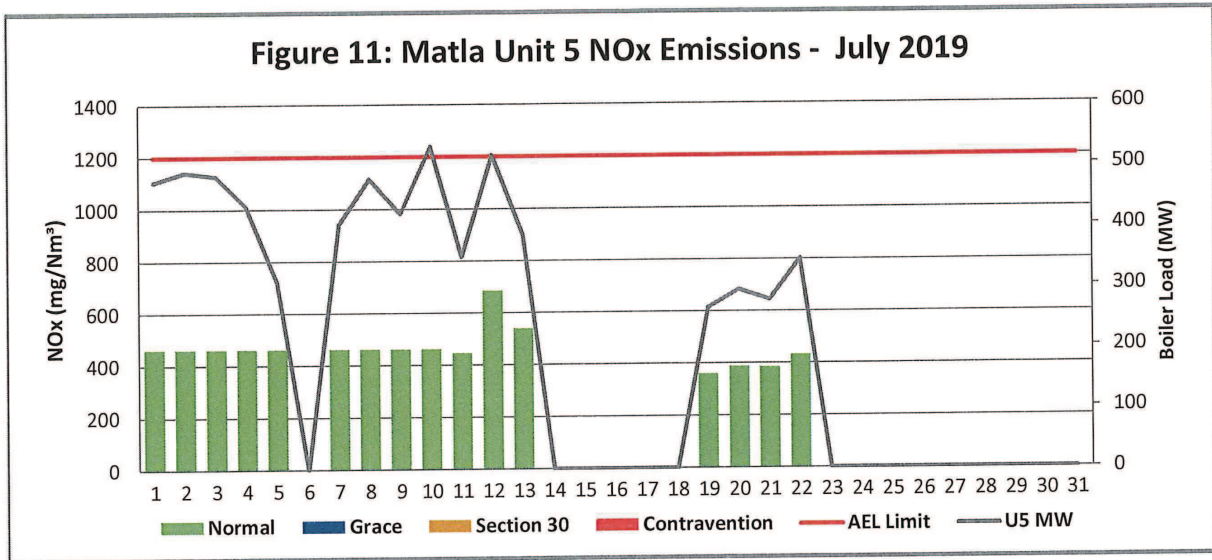
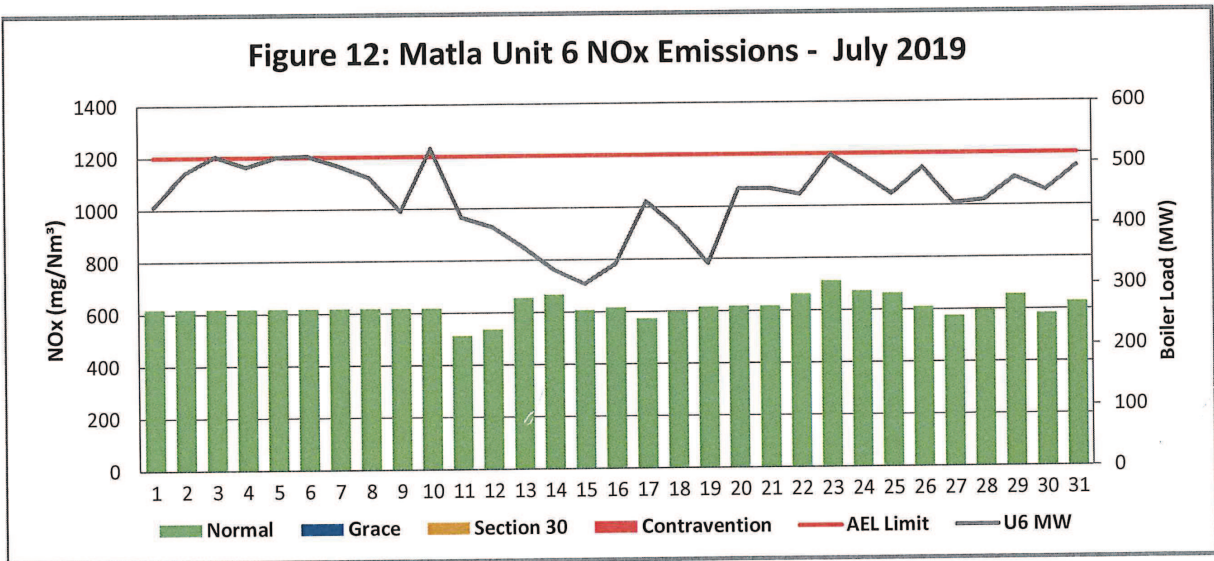


Figure 12: Matla Unit 6 NOx Emissions - July 2019



7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1. PM Start-up information for the month of July-2019

South Stack	<i>Event 1</i>		<i>Event 2</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<i>Unit 1</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)	<i>01:15 AM</i>	<i>2019/07/17</i>						
Draught Group (DG) Shut Down (SD)	<i>07:45 PM</i>	<i>2019/07/17</i>						
BO to DG SD (duration)	<i>00:18:30</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time	<i>02:35 AM</i>	<i>2019/07/24</i>						
Synch. to Grid (or BC)	<i>12:35 AM</i>	<i>2019/07/25</i>						
Fires in to BC (duration)	<i>00:22:00</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)	<i>not > limit</i>	<i>not > limit</i>						
Emissions below limit from BC (duration)	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

South Stack ...cont.	<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