



Generation

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Date: 2019/11/01

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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 Sep-2019
	Coal	Tons	1 475 000	891 587
	Fuel Oil	Tons	3 500	1 103
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Sep-2019
	Energy	GWh	2 484	1 591
	Ash	Tons	471 000	233 061
	RE PM	kg/MWh	not specified	0.636

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	26.14

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 Sep-2019
South	<i>Electro Static Precipators (ESP)</i>	<i>99.458%</i>
Unit 4	<i>Electro Static Precipators (ESP)</i>	<i>99.457%</i>
Unit 5	<i>Electro Static Precipators (ESP)</i>	<i>99.718%</i>
Unit 6	<i>Electro Static Precipators (ESP)</i>	<i>99.626%</i>

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	<i>86.5</i>	<i>83.2</i>	<i>83.3</i>		<i>49.2</i>
Unit 4	<i>87.8</i>	<i>99.8</i>	<i>99.8</i>		<i>100.0</i>
Unit 5	<i>71.4</i>	<i>99.6</i>	<i>98.5</i>		<i>99.8</i>
Unit 6	<i>84.9</i>	<i>99.7</i>	<i>99.7</i>		<i>99.9</i>

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM	SO _x	NO _x	CO ₂
Unit 1	167.4	1 935.5	891.8	
Unit 2	199.8	3 110.8	1 363.9	
Unit 3	268.5	3 939.3	1 767.8	
Unit 4	198.8	1 738.6	1 240.6	
Unit 5	96.4	2 952.9	1 085.1	
Unit 6	81.3	1 894.1	724.9	
SUM	1 012.1	15 571.2	7 074.2	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average PM (mg/Nm ³)
South	19	9	2	0	11	158.9
Unit 4	17	6	1	0	7	171.1
Unit 5	18	4	0	0	4	57.5
Unit 6	14	4	0	0	4	76.1
SUM	68	23	3	0	26	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average SOx (mg/Nm ³)
South	30	0	0	0	0	2 298.6
Unit 4	26	0	0	0	0	1 497.1
Unit 5	24	0	0	0	0	1 833.9
Unit 6	19	0	0	0	0	1 795.7
SUM	99	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average NOx (mg/Nm ³)
South	27	3	0	0	3	1 027.5
Unit 4	26	0	0	0	0	1 068.4
Unit 5	24	0	0	0	0	641.6
Unit 6	19	0	0	0	0	674.5
SUM	96	3	0	0	3	

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
Contra-vention		Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Matla South Stack PM Emissions - September 2019

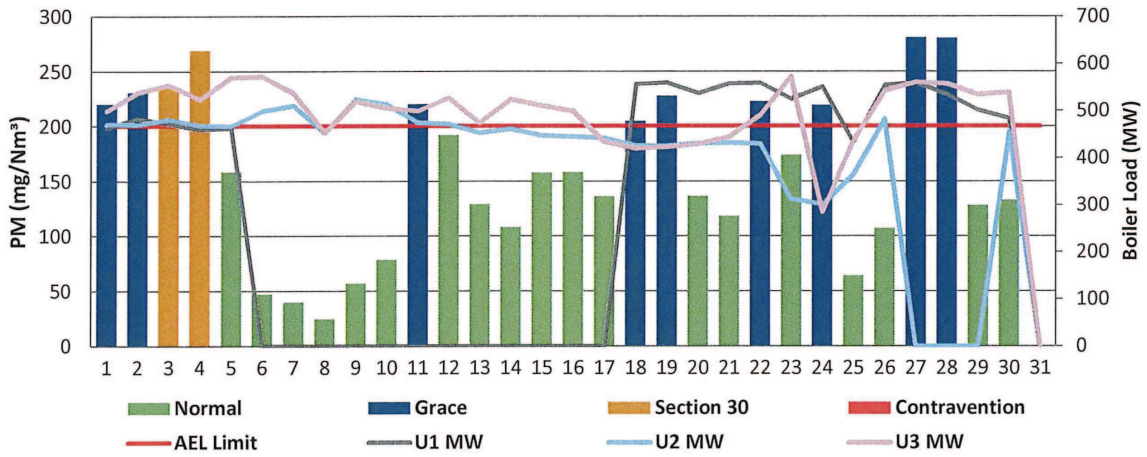


Figure 2: Matla Unit 4 PM Emissions - September 2019

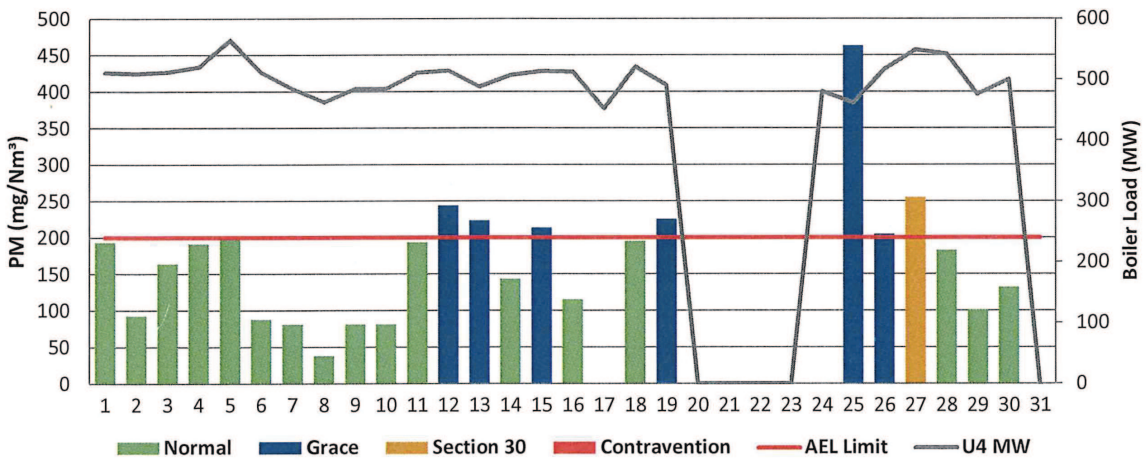


Figure 3: Matla Unit 5 PM Emissions - September 2019

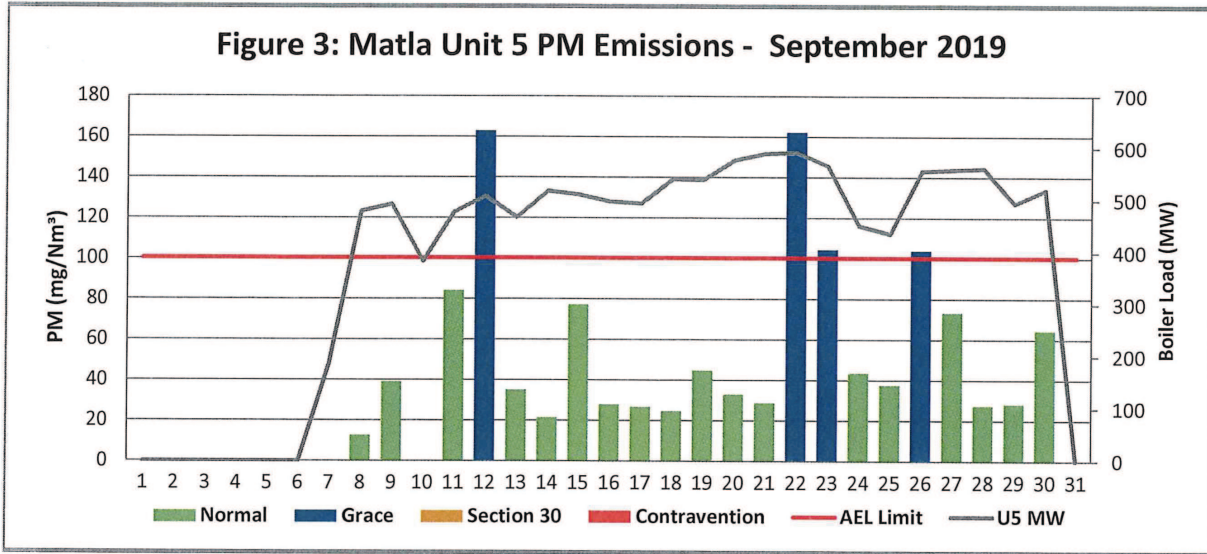


Figure 4: Matla Unit 6 PM Emissions - September 2019

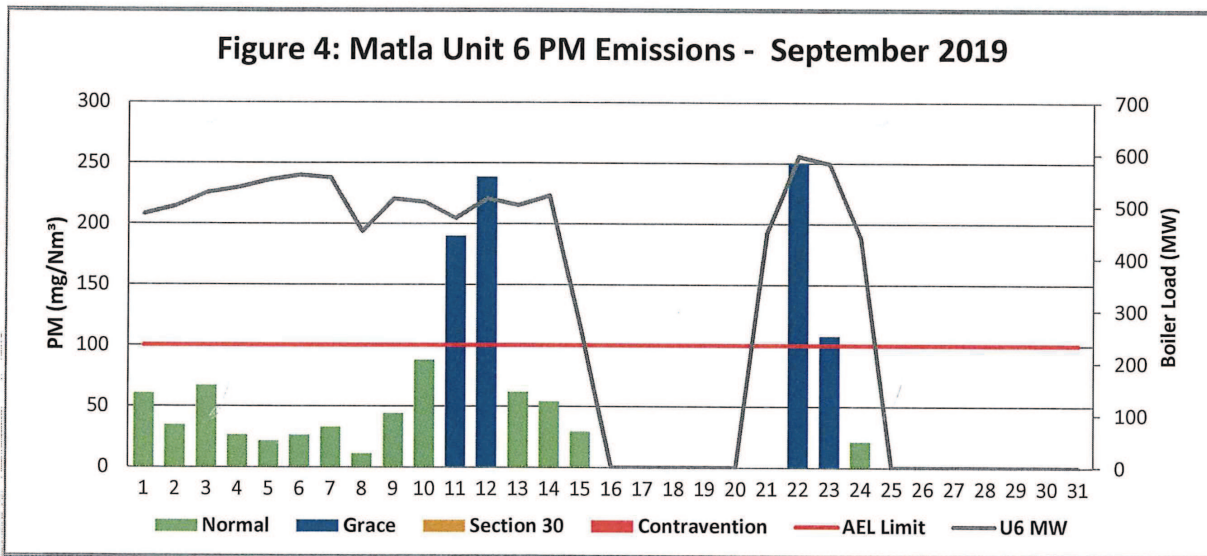


Figure 5: Matla South Stack SOx Emissions - September 2019

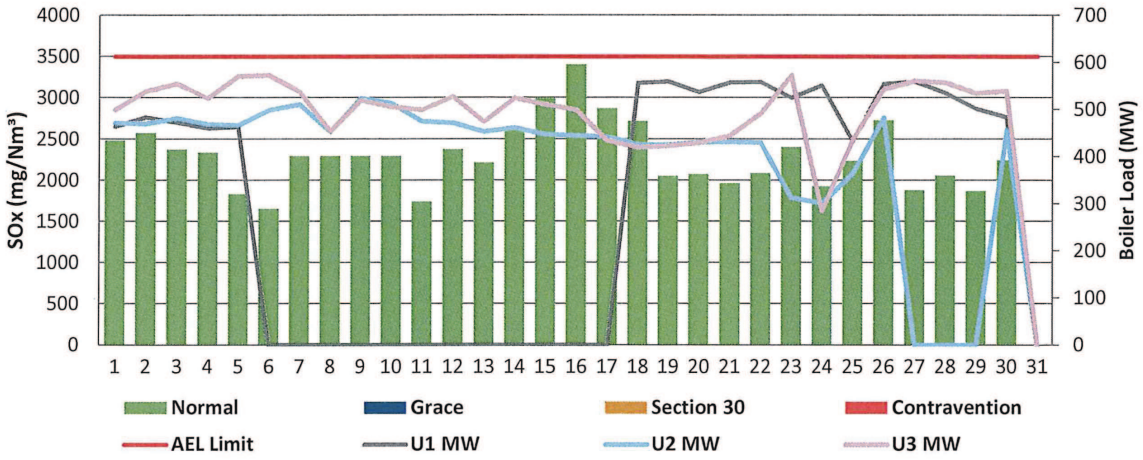


Figure 6: Matla Unit 4 SOx Emissions - September 2019

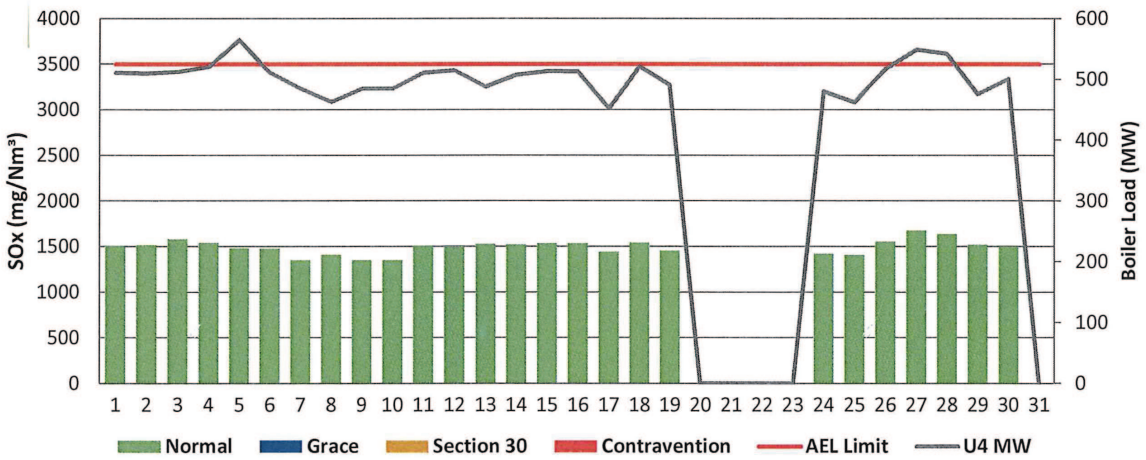


Figure 7: Matla Unit 5 SOx Emissions - September 2019

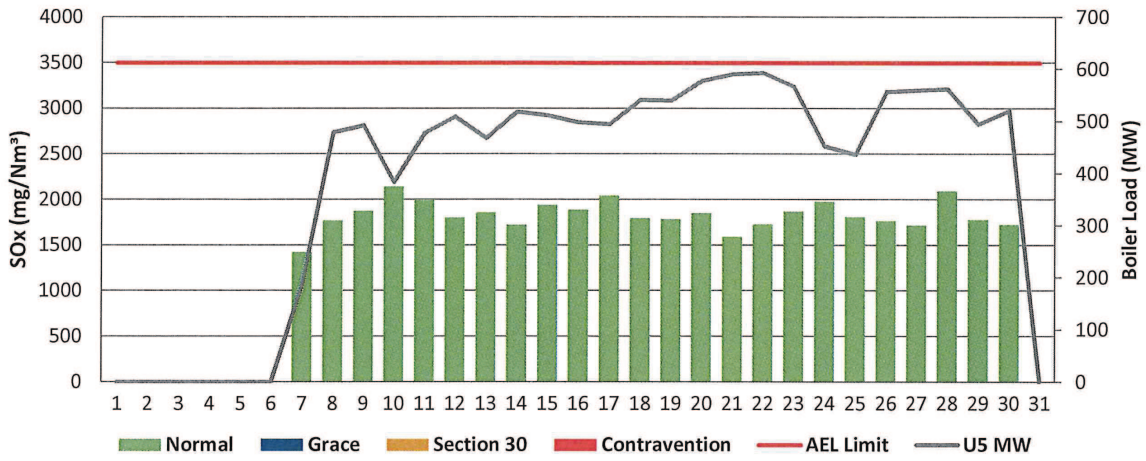


Figure 8: Matla Unit 6 SOx Emissions - September 2019

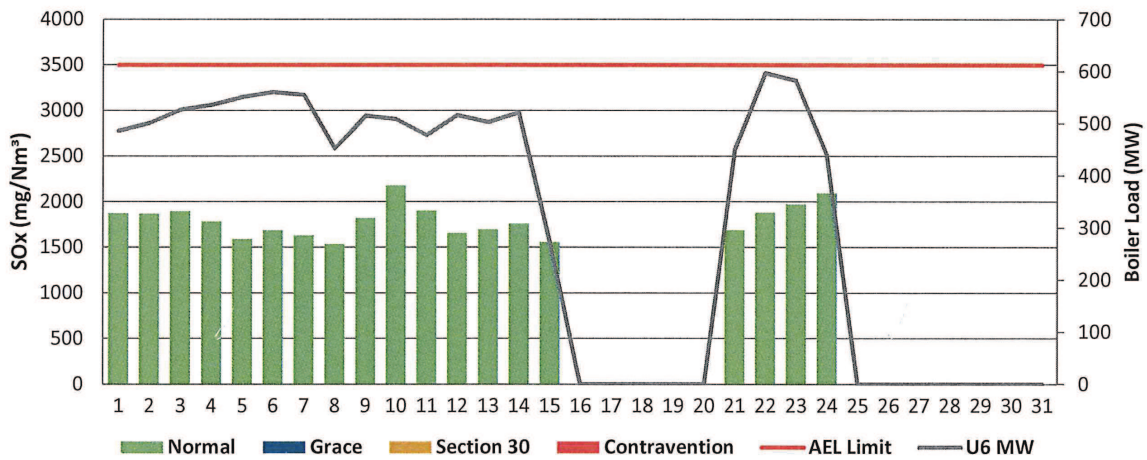


Figure 9: Matla South Stack NOx Emissions - September 2019

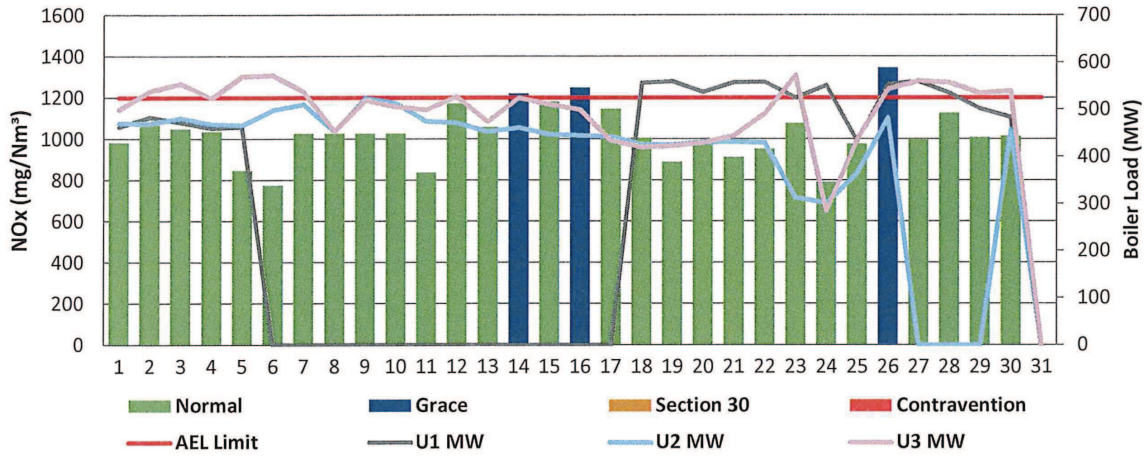


Figure 10: Matla Unit 4 NOx Emissions - September 2019

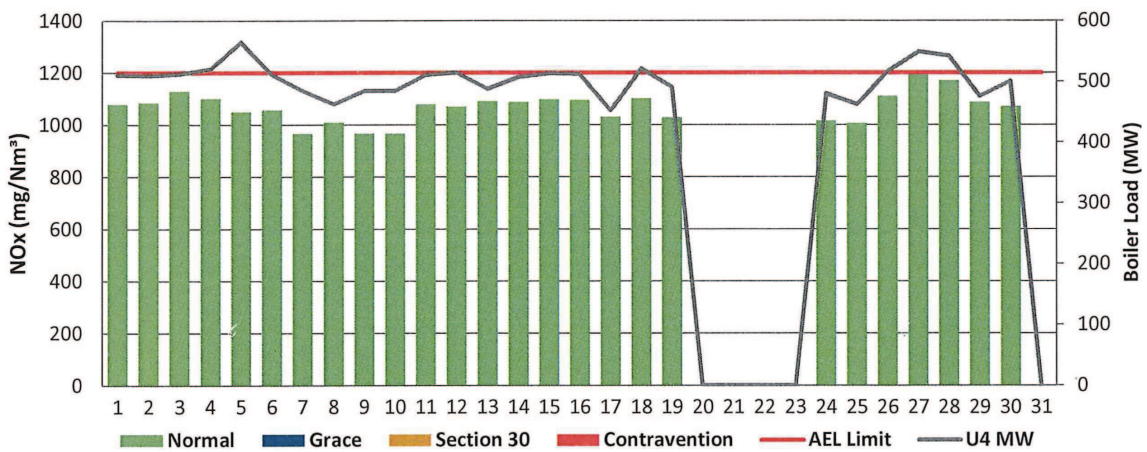


Figure 11: Matla Unit 5 NOx Emissions - September 2019

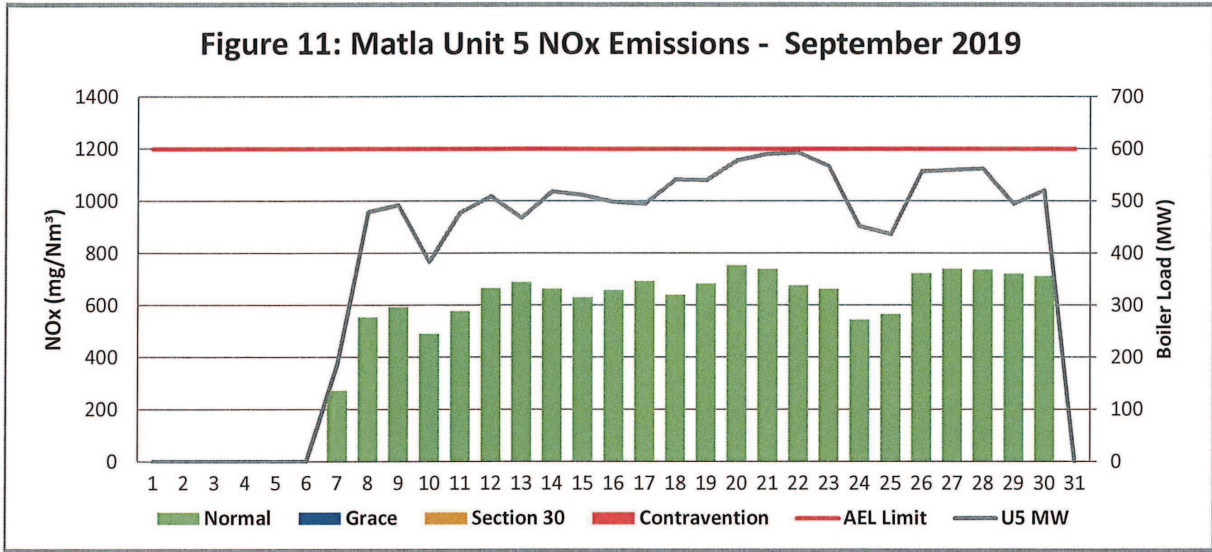
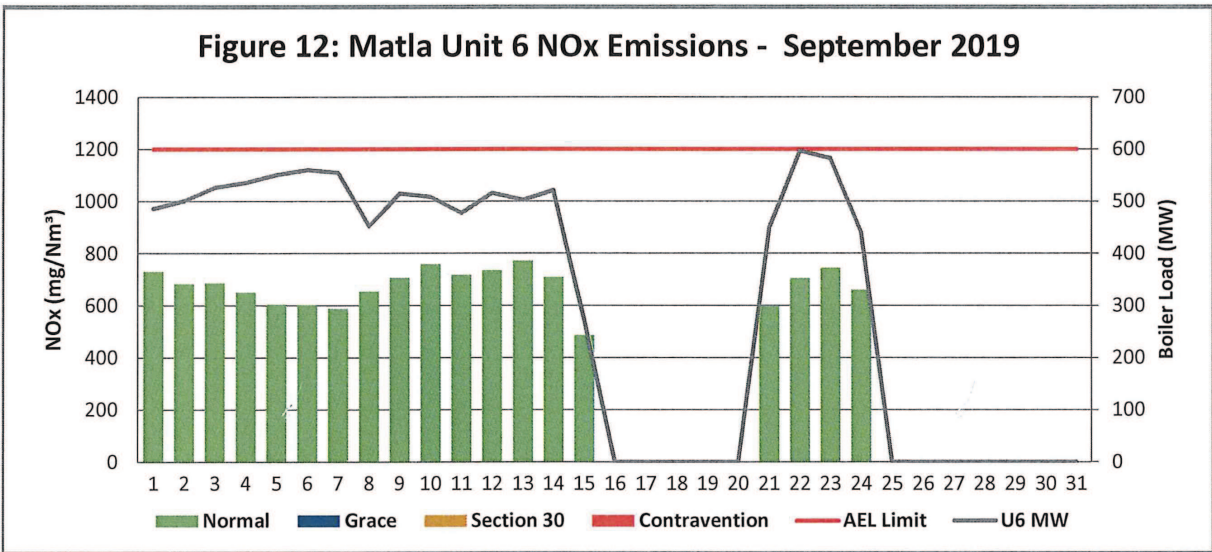


Figure 12: Matla Unit 6 NOx Emissions - September 2019



7 SHUT DOWN AND LIGHT UP INFORMATION

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

South 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

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