



Generation

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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 Aug-2019
	Coal	Tons	1 475 000	959 223
	Fuel Oil	Tons	2 500	606
Production Rates	Product / By-Product Name	Units	Maximum Production Capacity Permitted	Production Rate Aug-2019
	Energy	GWh	2 567	1 732
	Ash	Tons	471 000	262 060
	RE PM	kg/MWh	not specified	0.766

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	27.32

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 Aug-2019
South	<i>Electro Static Precipators (ESP)</i>	<i>99.224%</i>
Unit 4	<i>Electro Static Precipators (ESP)</i>	<i>99.649%</i>
Unit 5	<i>Electro Static Precipators (ESP)</i>	<i>99.669%</i>
Unit 6	<i>Electro Static Precipators (ESP)</i>	<i>99.830%</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>78.9</i>	<i>98.3</i>	<i>98.8</i>		<i>99.6</i>
Unit 4	<i>96.0</i>	<i>99.9</i>	<i>99.9</i>		<i>100.0</i>
Unit 5	<i>61.7</i>	<i>99.2</i>	<i>98.4</i>		<i>99.2</i>
Unit 6	<i>95.8</i>	<i>99.9</i>	<i>99.6</i>		<i>99.9</i>

6 EMISSION PERFORMANCE

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

Associated Unit/Stack	PM	SO _x	NO _x	CO ₂
Unit 1	340.4	3 499.8	1 537.1	
Unit 2	340.4	3 533.0	1 547.3	
Unit 3	384.4	3 962.8	1 738.7	
Unit 4	165.1	2 788.1	1 989.9	
Unit 5	16.9	195.0	70.5	
Unit 6	78.8	3 427.5	1 291.4	
SUM	1 326.0	17 406.3	8 174.7	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average PM (mg/Nm ³)
South	13	5	13	0	18	214.1
Unit 4	29	2	0	0	2	87.4
Unit 5	2	2	0	0	2	139.8
Unit 6	30	1	0	0	1	40.7
SUM	74	10	13	0	23	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average SOx (mg/Nm ³)
South	31	0	0	0	0	2 217.3
Unit 4	31	0	0	0	0	1 477.2
Unit 5	5	0	0	0	0	1 740.8
Unit 6	31	0	0	0	0	1 858.3
SUM	98	0	0	0	0	

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

Associated Unit/Stack	Normal	Grace	Section 30	Contra-vention	Total Exceedance	Average NOx (mg/Nm ³)
South	31	0	0	0	0	970.8
Unit 4	31	0	0	0	0	1 054.3
Unit 5	5	0	0	0	0	501.9
Unit 6	31	0	0	0	0	698.6
SUM	98	0	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
Contra-vention		Emissions above ELV but outside grace or S30 incident conditions

Figure 1: Matla South Stack PM Emissions - August 2019

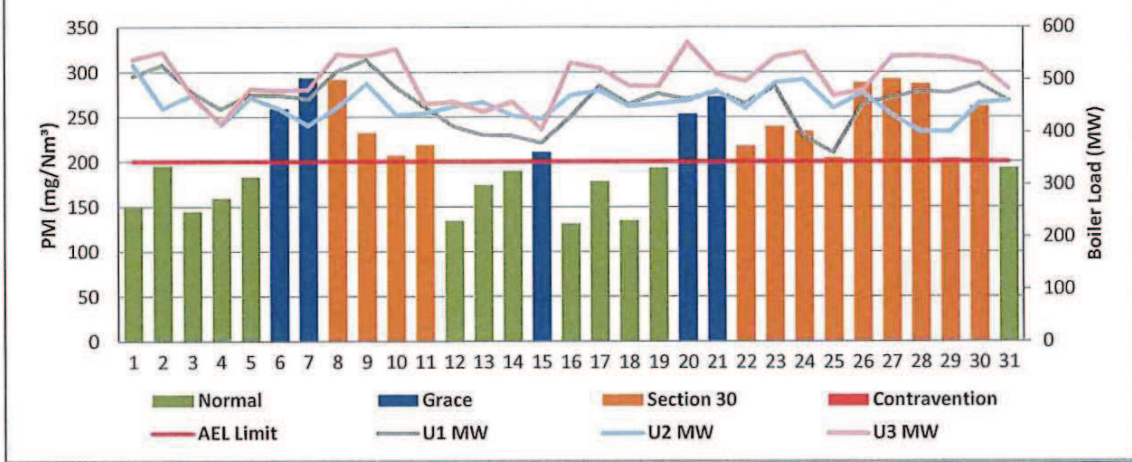


Figure 2: Matla Unit 4 PM Emissions - August 2019

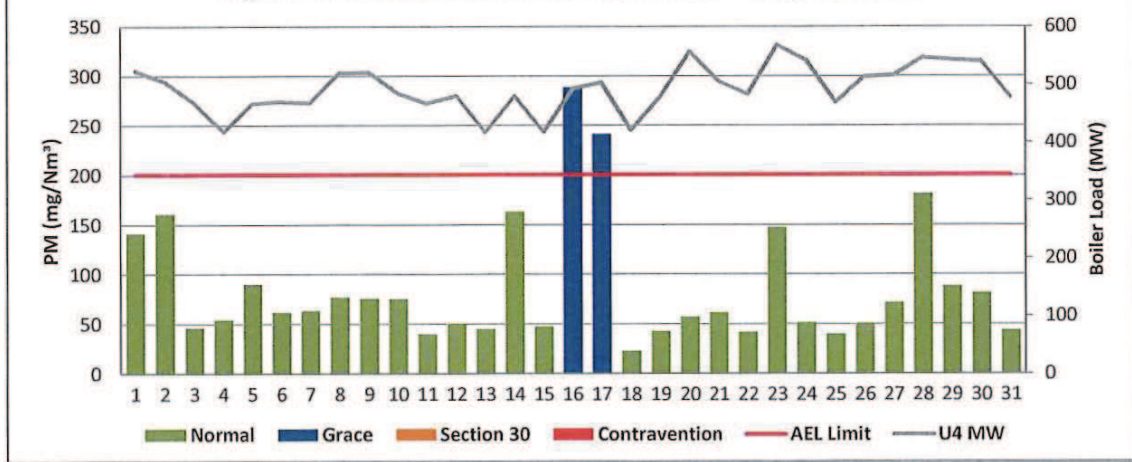


Figure 3: Matla Unit 5 PM Emissions - August 2019

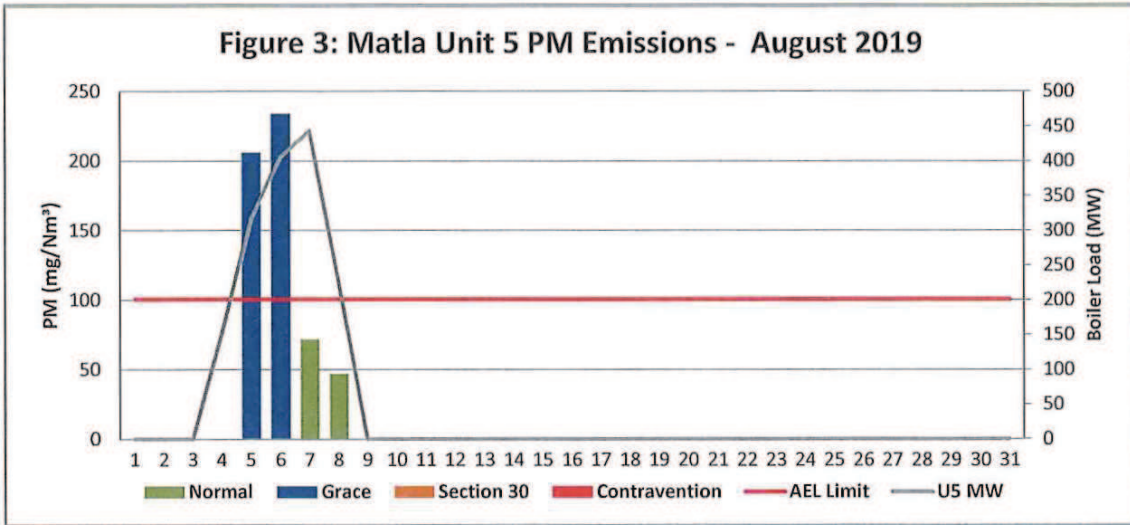


Figure 4: Matla Unit 6 PM Emissions - August 2019

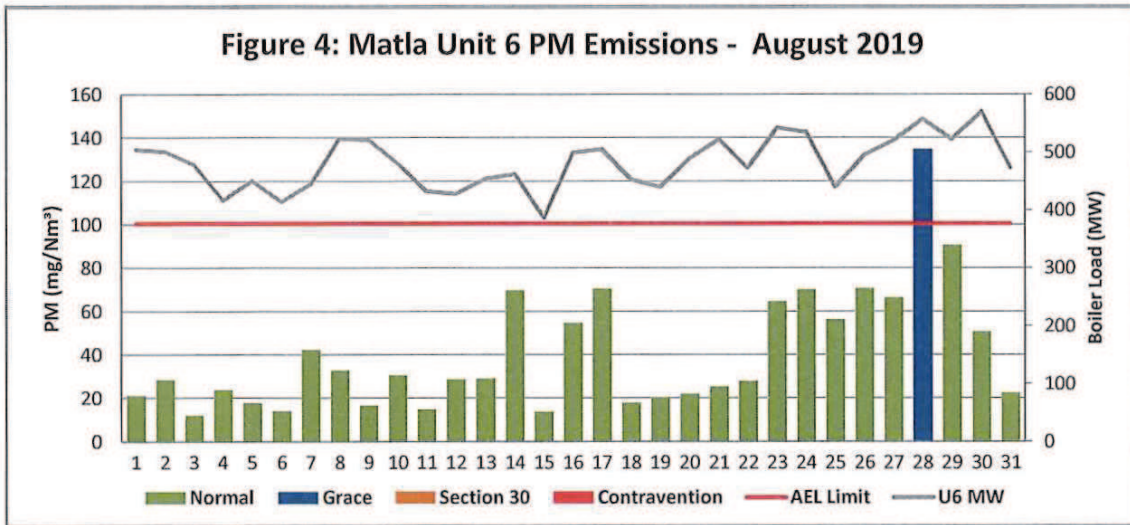


Figure 5: Matla South Stack SOx Emissions - August 2019

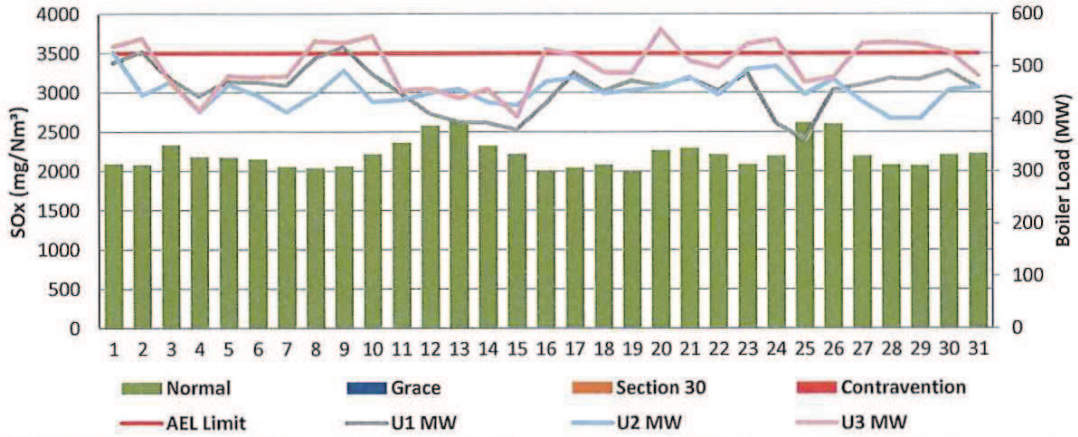


Figure 6: Matla Unit 4 SOx Emissions - August 2019

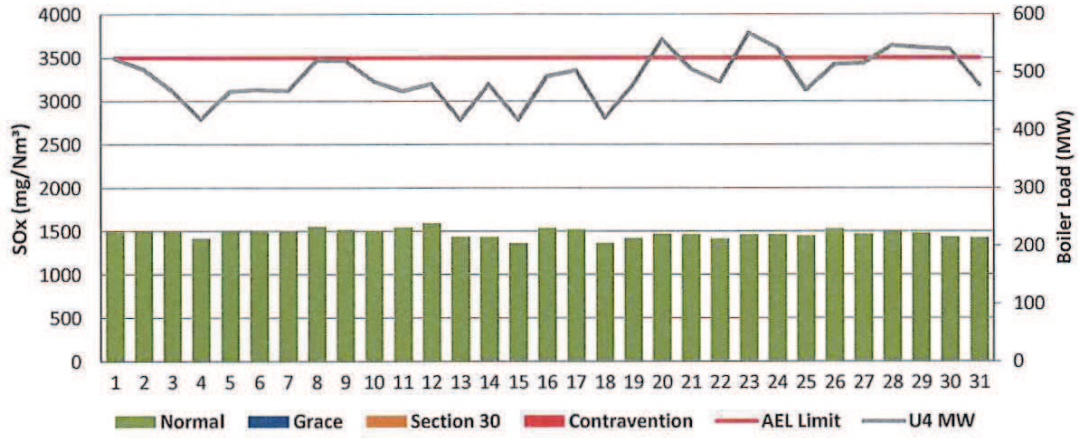


Figure 7: Matla Unit 5 SOx Emissions - August 2019

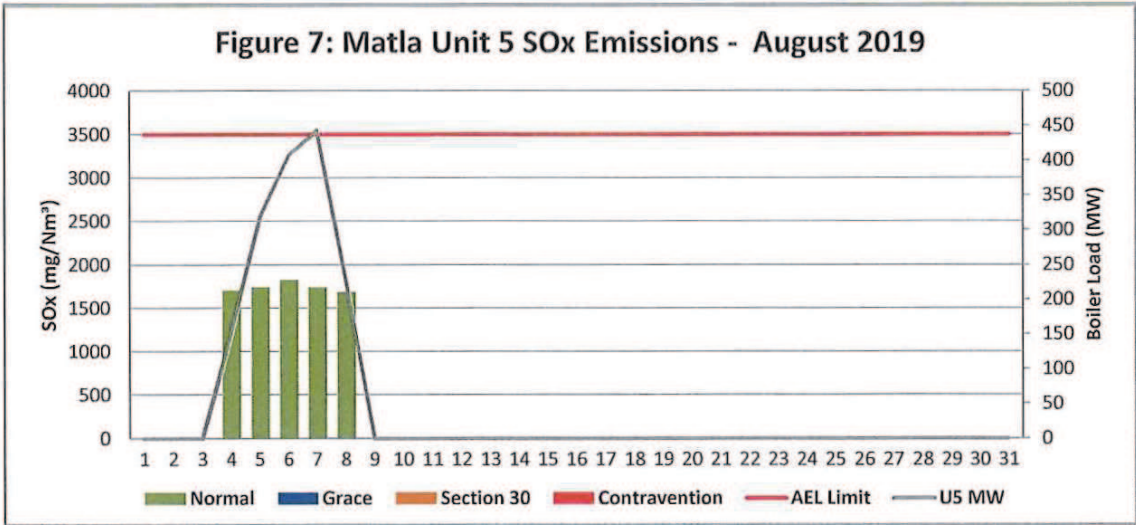


Figure 8: Matla Unit 6 SOx Emissions - August 2019

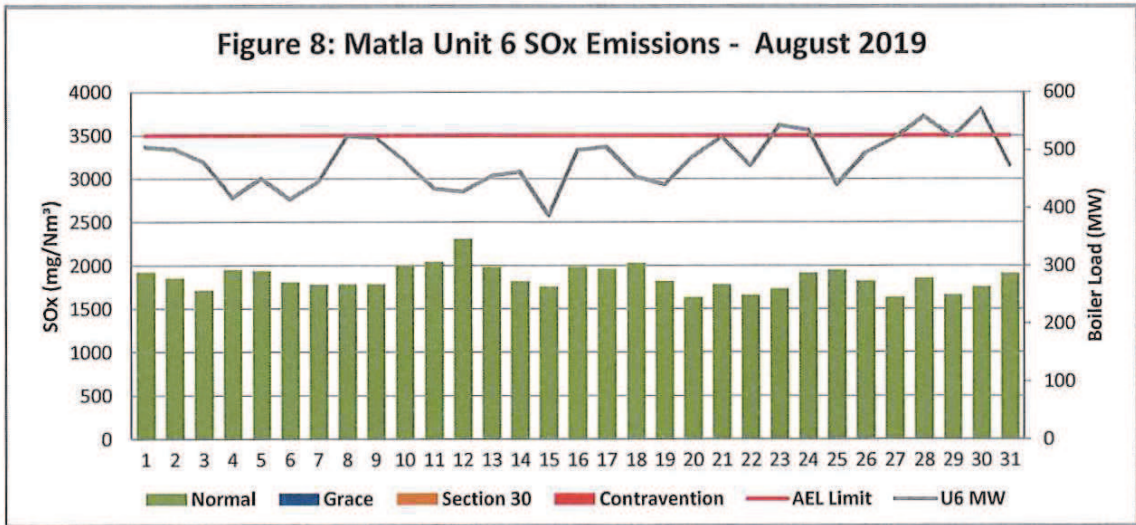


Figure 9: Matla South Stack NOx Emissions - August 2019

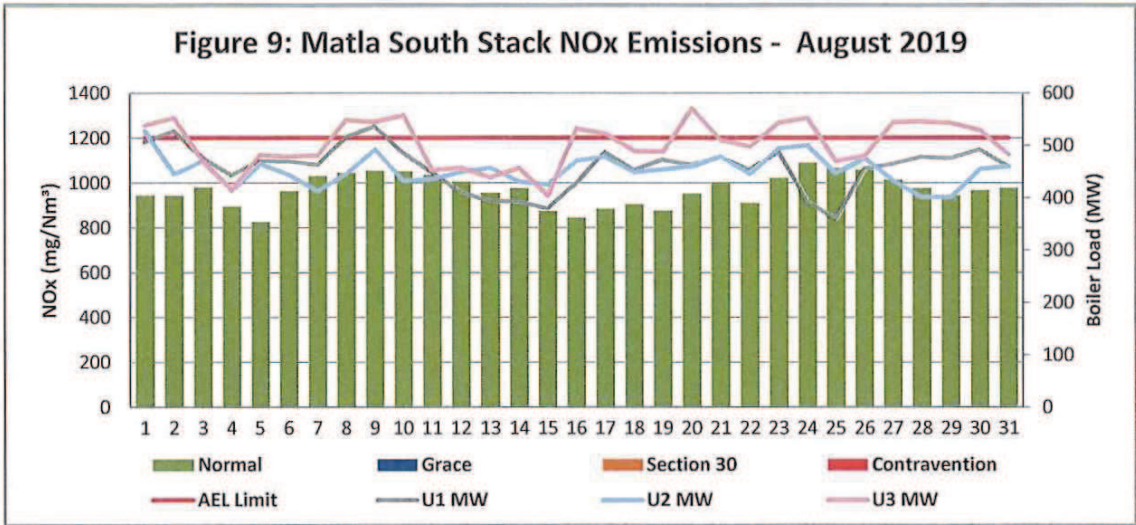


Figure 10: Matla Unit 4 NOx Emissions - August 2019

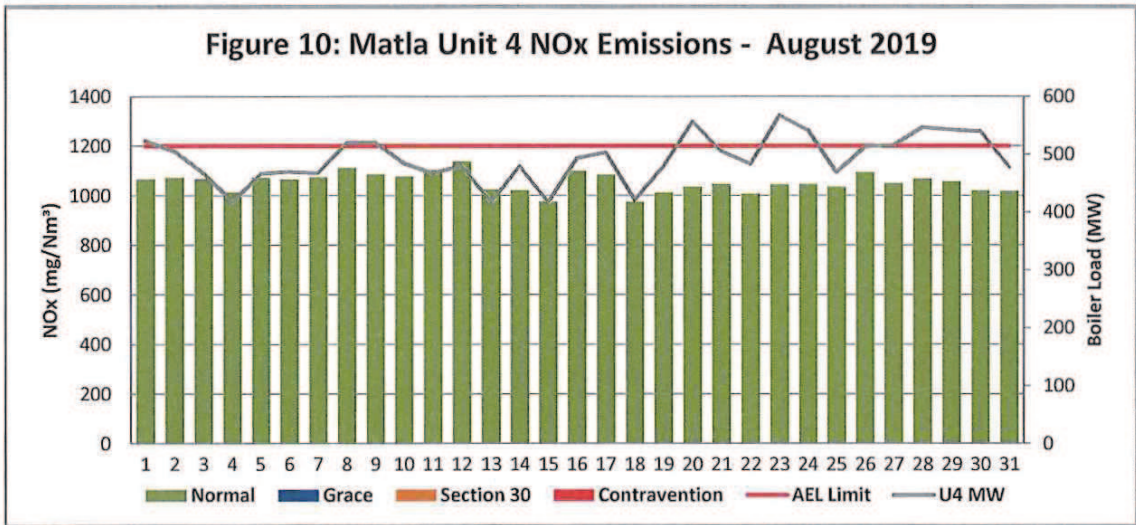


Figure 11: Matla Unit 5 NOx Emissions - August 2019

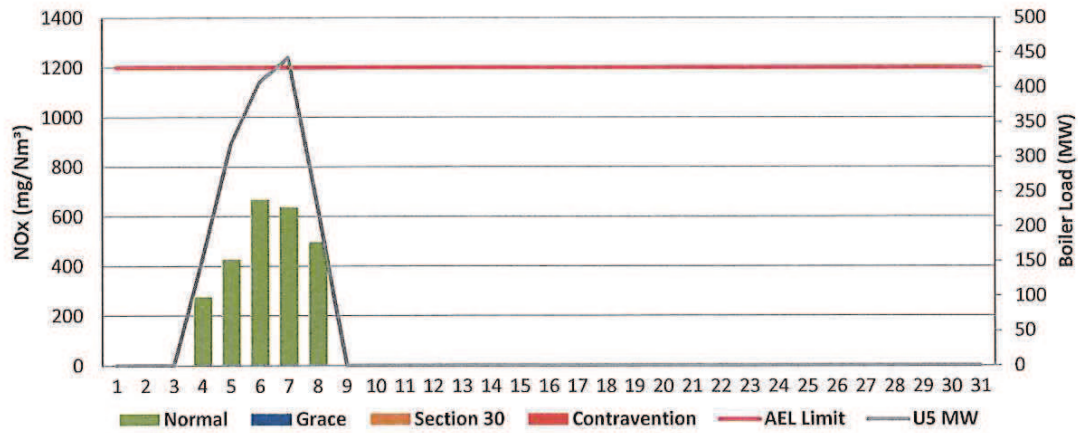
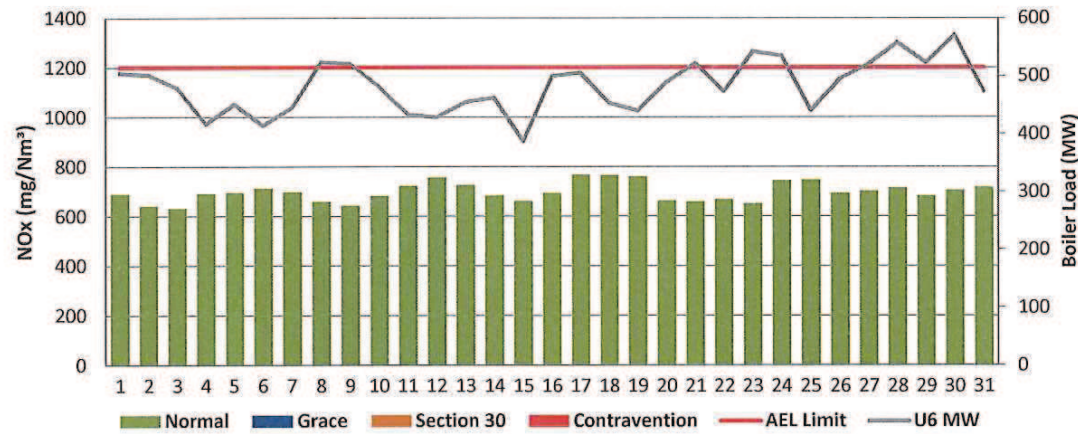


Figure 12: Matla Unit 6 NOx Emissions - August 2019



7 SHUT DOWN AND LIGHT UP INFORMATION

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

Unit No. 4	Event 1		Event 2		Event 3		Event 4	
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

Unit No. 5	Event 1		Event 2		Event 3		Event 4	
Breaker Open (BO)	BO previously	BO previously	12:45 AM	2019/08/08				
Draught Group (DG) Shut Down (SD)	n/a	n/a	12:45 AM	2019/08/08				
BO to DG SD (duration)	n/a	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time	01:40 AM	2019/08/04						
Synch. to Grid (or BC)	09:50 PM	2019/08/04						
Fires in to BC (duration)	00:20:10	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)	12:00 AM	2019/08/07						
Emissions below limit from BC (duration)	02:02:10	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

Unit No. 6	Event 1		Event 2		Event 3		Event 4	
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-2019 in mg/Nm³

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

