



Generation

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Date: 2023/02/09

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MATLA POWER STATION

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


BOILER ENGINEERING MANAGER

14/02/2023
DATE


ENVIRONMENTAL MANAGER

2023/02/14
DATE


ENGINEERING MANAGER

14/02/2023
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	Max Permitted Consumption Rate	Consumption Rate Dec-2022
	Coal	Tons	1 475 000	879 077
	Fuel Oil	Tons	3 500	574

Production Rates	Product / By-Product Name	Units	Max Production Capacity Permitted	Production Rate Dec-2022
	Energy	GWh	2 745	1 062
	Ash	Tons	471 000	242 801
	RE PM	kg/MWh	not specified	1.576

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristic	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.8-1.1	1.00
Ash Content	%	21-40	27.62

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

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
South	4	3	0	24	27	333.5
Unit 4	0	0	0	0	0	
Unit 5	16	10	5	0	15	151.9
Unit 6	5	5	4	0	9	200.8
SUM	25	18	9	24	51	

Table 6.3: Operating days in compliance to SO₂ AEL Limit - December 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO ₂ (mg/Nm ³)
South	31	0	0	0	0	2 943.9
Unit 4	0	0	0	0	0	
Unit 5	31	0	0	0	0	2 223.5
Unit 6	14	0	0	0	0	2 416.8
SUM	76	0	0	0	0	

Table 6.4: Operating days in compliance to NO_x AEL Limit - December 2022

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NO _x (mg/Nm ³)
South	31	0	0	0	0	467.7
Unit 4	0	0	0	0	0	
Unit 5	31	0	0	0	0	913.2
Unit 6	14	0	0	0	0	737.6
SUM	76	0	0	0	0	

Note: NO_x emissions is measured as NO in PPM. Final NO_x value is expressed as total NO₂

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 3: Matla Unit 5 PM Emissions - December 2022

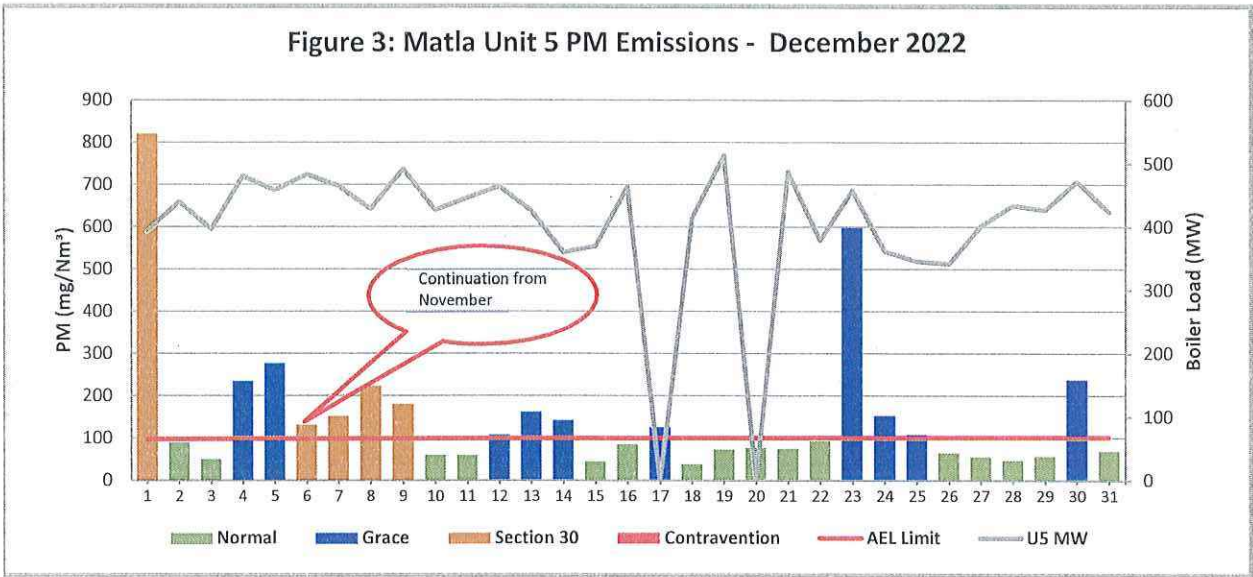


Figure 4: Matla Unit 6 PM Emissions - December 2022

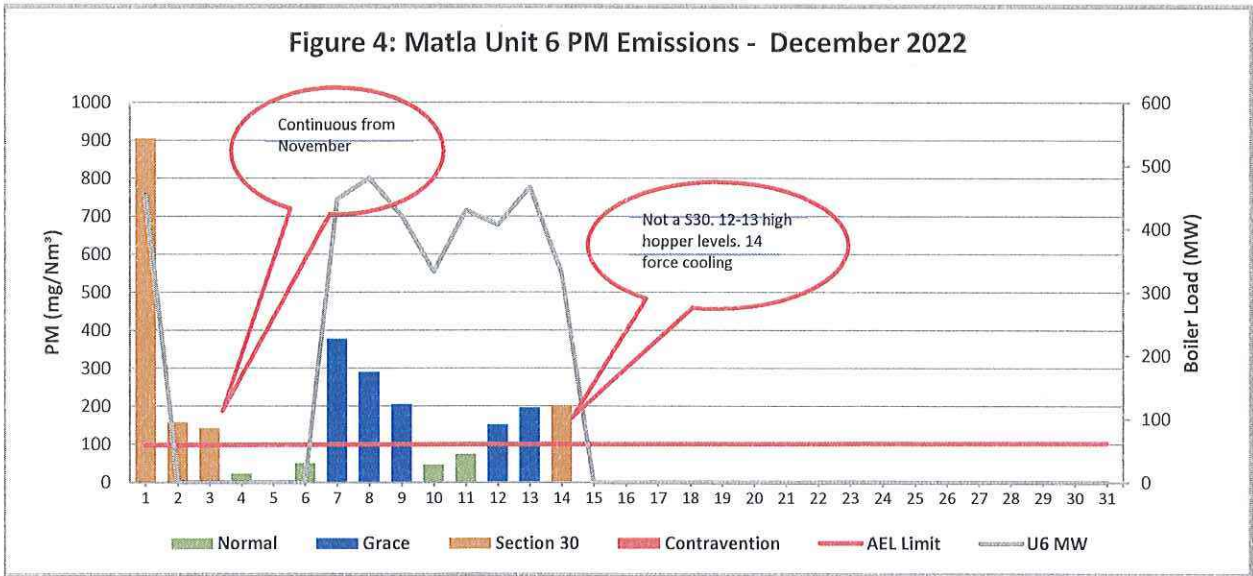


Figure 7: Matla Unit 5 SO₂ Emissions - December 2022

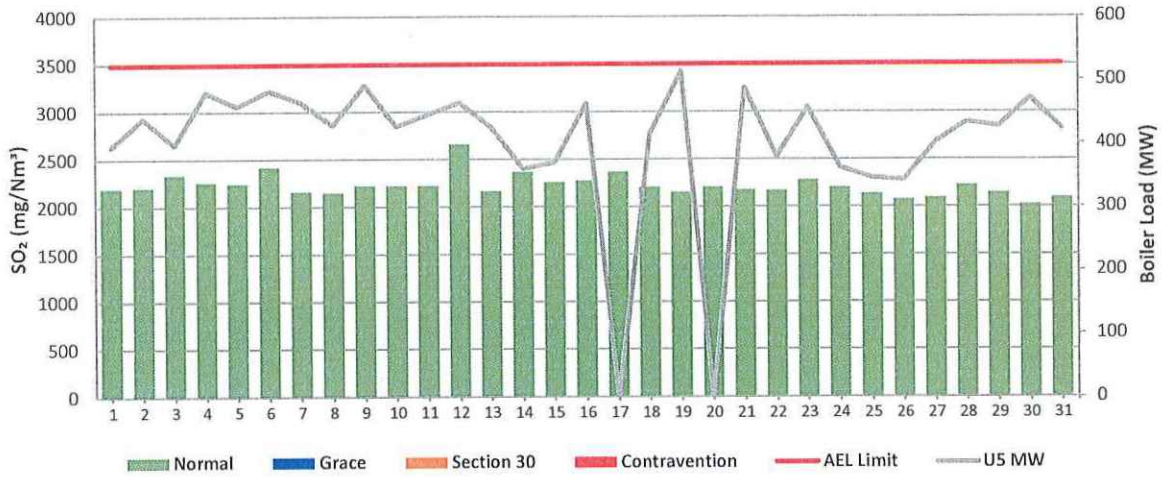


Figure 8: Matla Unit 6 SO₂ Emissions - December 2022

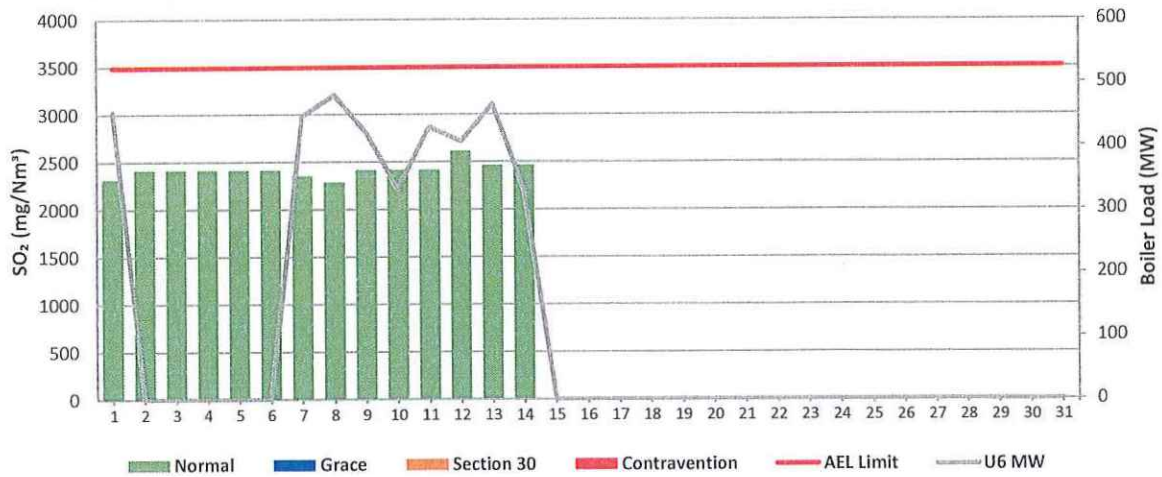


Figure 11: Matla Unit 5 NOx Emissions - December 2022

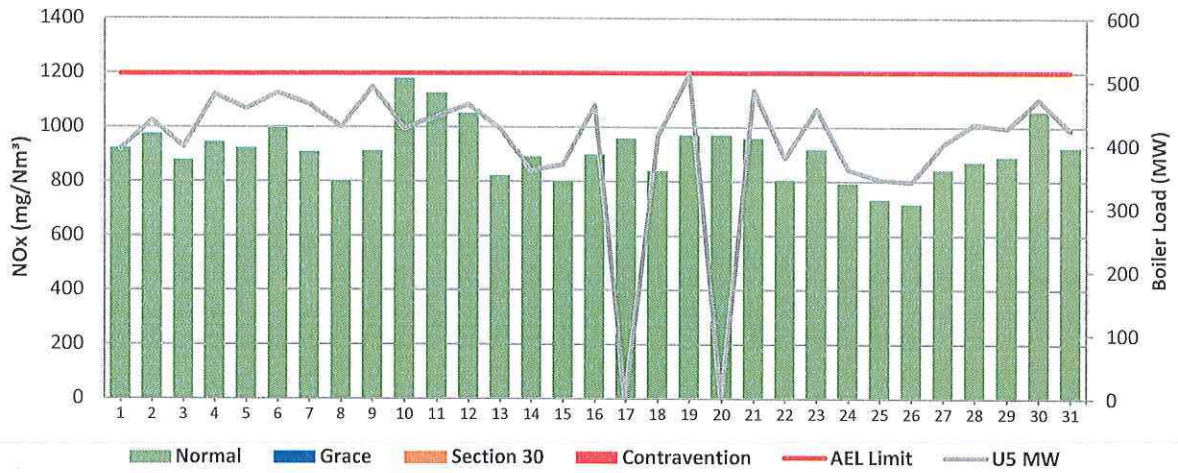
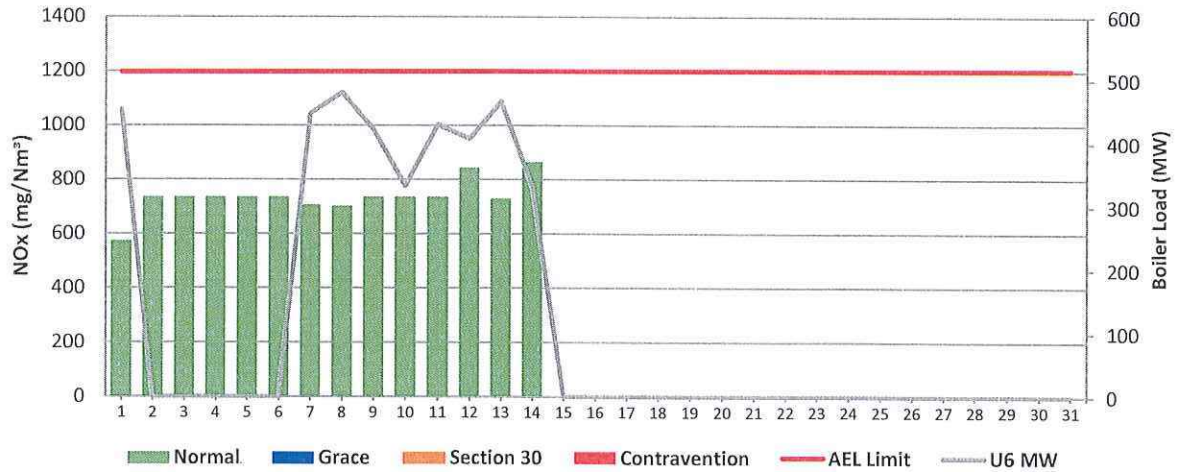


Figure 12: Matla Unit 6 NOx Emissions - December 2022



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)								
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

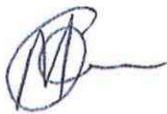
Unit No. 6	Event 1		Event 2		Event 3		Event 4	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions 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 December-2022 in mg/Nm³

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

11 General

Gas are reported using parallel tests averages where monitor is defective.
South stack has incurred non compliance from 01-12-2022 to 31-12-22.
Unit 6 exceeded the limit from 12-12-2022 to 13-12-2022 due to high hopper levels. The 3rd day of exceedance on the 14-12-2022 was due to force cooling after the unit was shut down.
Unit 6 correlation curve expired and testing planned on return from outage.



09-02-2023

Boiler Engineering

Date



09/02/2023

Environmental Department

Date



2023/02/14

General Manager

Date

Compiled by: Boiler Engineering Department

ESP & SO₂ System Engineer

For: Department of Environmental Affairs and Tourism

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Matla Power Station:

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Operating Manager
Maintenance Manager
Unit Production Manager
Boiler Engineering Manager
System Engineer
Environmental Officer
Performance and Test
Production Manager